EPA

United States Environmental Protection Agency

# FORM R

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number: 11590PRKNL1101P

Toxic Chemical, Category or Generic Name: Cobalt

**WHERE TO SEND COMPLETED FORMS:** 1. TRI Data Processing Center, P.O.Box 1513, Lanham, MD 20703-1513 2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR 2004

### SECTION 2. TRADE SECRET INFORMATION

| | | | |
|---|---|---|---|
| 2.1 | Are you claiming the toxic chemical identified on page 2 trade secret? [ ] Yes (Answer question 2.2; Attach substantiation forms) [X] NO (Do not answer 2.2; Go to Section 3) | 2.2 | Is this copy [ ] Sanitized [ ] Unsanitized (Answer only if "YES" in 2.1) |

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| W. GREGORY WUEST MGR, GLOBAL QUAL, ENVIRONMENT, HEALTH, SAFETY | | 06/30/2005 |

### SECTION 4. FACILITY IDENTIFICATION

| | | | |
|---|---|---|---|
| 4.1 | | TRI Facility ID Number | 11590PRKNL1101P |
| Facility or Establishment Name | SULZER METCO (US), INC. | Facility or Establishment Name or Mailing Address (if different from street address) | |
| Street | 1101 PROSPECT AVENUE | Mailing Address | NA |
| City/County/State/Zip Code | WESTBURY NASSAU NY 11590 | City/State/Zip Code / Country (Non-US) | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check a or b; check c or d if applicable) | a. [X] An entire facility | b. [ ] Part of a facility | c. [ ] A Federal facility | d. [ ] GOCO | | |
| 4.3 | Technical Contact Name | PETER DIPIETRANTONIO | | | | Telephone Number (include area code) | (516) 338-2337 |
| | Email Address | PETER.DIPIETRANTONIO@SULZER.COM | | | | | |
| 4.4 | Public Contact Name | W. GREGORY WUEST | | | | Telephone Number (include area code) | (516) 338-2217 |

| 4.5 SIC Code (s) (4 digits) | Primary | b. | c. | d. | e. | f. |
|---|---|---|---|---|---|---|
| | a. 3559 | | | | | |

| 4.6 | Degrees | Minutes | Seconds | | Degrees | Minutes | Seconds |
|---|---|---|---|---|---|---|---|
| Latitude / Longitude | 40 | 45 | 50 | | 073 | 33 | 10 |

| 4.7 Dun & Bradstreet Number(s) (9 digits) | 4.8 EPA Identification Number (RCRA I.D. No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. 152084398 | a. NYD131318651 | a. NA | a. NA |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

| | | | | |
|---|---|---|---|---|
| 5.1 | Name of Parent Company | NA [ ] | SULZER US INDUSTRIES HOLDING INC. | |
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | 001826957 | |

# EPA FORM R
# PART II. CHEMICAL - SPECIFIC INFORMATION

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category or Generic Name |
| Cobalt |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440-48-4 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | Cobalt |
| 1.3 | Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.) |
| | NA |

**1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.**
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA | | | | | | | | | | | | | | | | |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |
| | NA |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | | 3.2 Process the toxic chemical: | | 3.3 Otherwise use the toxic chemical: | |
|---|---|---|---|---|---|
| a. | Produce b. Import | | | | |
| | If produce or import: | a. | As a reactant | a. | As a chemical processing aid |
| c. | For on-site use/processing | b. X | As a formulation component | b. | As a manufacturing aid |
| d. | For sale/distribution | c. | As an article component | c. | Ancillary or other use |
| e. | As a byproduct | d. X | Repackaging | | |
| f. | As an impurity | e. | As an impurity | | |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 (Enter two-digit code from instruction package.) | |

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA | 0 | O | |
| 5.2 | Stack or point air emissions | NA | 0 | E | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |

**If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box and indicate the Part II, Section 5.3 page number in this box.** **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Cobalt |

### SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release ( pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I Wells | X | | |
| 5.4.2 | Underground Injection onsite to Class II-V Wells | X | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA Subtitle C landfills | X | | |
| 5.5.1.B | Other landfills | X | | |
| 5.5.2 | Land treatment/application farming | X | | |
| 5.5.3A | RCRA Subtitle C Surface Impoundments | X | | |
| 5.5.3B | Other surface impoundments | X | | |
| 5.5.4 | Other disposal | X | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

#### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.1.B. 1 | POTW Name | NA | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |
| 6.1.B. | POTW Name | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |

**If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box** [ ] **and indicate the Part II, Section 6.1 page number in this box** [ ] **(example: 1,2,3, etc.)**

#### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| 6.2. 1 Off-Site EPA Identification Number (RCRA ID No.) | OHD000816629 |
|---|---|
| Off-Site Location Name | Clean Harbors Spring Grove Resource Recovery |
| Off-site Address | 4879 Spring Grove Avenue |

| City | Cincinnati | State | OH | County | Hamilton | Zip | 45232 | Country (Non-US) |
|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? Yes [X] No

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Cobalt |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 1972 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 2** Off-Site EPA Identification Number (RCRA ID No.) CTD000604488

Off-Site location Name: Clean Harbors of Connecticut

Off-site Address: 51 Broderick Road

| City | State | County | Zip | Country (Non-US) |
|---|---|---|---|---|
| Bristol | CT | Hartford | 06010 | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 867 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.1a | 7A.1b | 1 | | 2 | | 3 | | 4 | 7A.1c | 7A.1d | 7A.1e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.2a | 7A.2b | 1 | | 2 | | 3 | | 4 | 7A.2c | 7A.2d | 7A.2e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.3a | 7A.3b | 1 | | 2 | | 3 | | 4 | 7A.3c | 7A.3d | 7A.3e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.4a | 7A.4b | 1 | | 2 | | 3 | | 4 | 7A.4c | 7A.4d | 7A.4e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.5a | 7A.5b | 1 | | 2 | | 3 | | 4 | 7A.5c | 7A.5d | 7A.5e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [2]

**and indicate the Part II, Section 6.2/7A page number in this box:** [1] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Cobalt |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 3** Off-Site EPA Identification Number (RCRA ID No.): MDD980555189

Off-Site location Name: Clean Harbors of Baltimore

Off-site Address: 1910 Russell Street

| City | State | County | Zip | Country (Non-US) |
|---|---|---|---|---|
| Baltimore | MD | Baltimore | 21230 | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 419 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|
| 7A.6a | 7A.6b | 1 | | 2 | | | | 7A.6c | 7A.6d | 7A.6e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.7a | 7A.7b | 1 | | 2 | | | | 7A.7c | 7A.7d | 7A.7e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.8a | 7A.8b | 1 | | 2 | | | | 7A.8c | 7A.8d | 7A.8e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.9a | 7A.9b | 1 | | 2 | | | | 7A.9c | 7A.9d | 7A.9e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.10a | 7A.10b | 1 | | 2 | | | | 7A.10c | 7A.10d | 7A.10e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [2]

**and indicate the Part II, Section 6.2/7A page number in this box:** [2] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Cobalt |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

X — Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

| 1 | 2 | 3 |
|---|---|---|
| | | |

## SECTION 7C. ON-SITE RECYCLING PROCESSES

X — Not Applicable (NA) - Check here if no on-site recyling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| | | | | |
| **6** | **7** | **8** | **9** | **10** |
| | | | | |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | NA | 0 | 0 | 0 |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | NA | 3258 | 3000 | 3000 |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | NA | NA | NA | NA |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | | NA | |
| 8.9 | Production ratio or activity index | | | NA | |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | Yes | No |
|---|---|---|---|
| 8.11 | Is additional information on source reduction, recycling, or pollution control activities included with this report ? (Check one Box) | | X |



*For Dioxin or Dioxin-like compounds, report in grams/year

EPA United States Environmental Protection Agency

# FORM R

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number: 11590PRKNL1101P

Toxic Chemical, Category or Generic Name: Copper

**WHERE TO SEND COMPLETED FORMS:** 1. TRI Data Processing Center, P.O.Box 1513, Lanham, MD 20703-1513 2. APPROPRIATE STATE OFFICE (See Instructions in Appendix F)

Enter "X" here if this is a revision:

For EPA use only:

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR 2004

### SECTION 2. TRADE SECRET INFORMATION

**2.1** Are you claiming the toxic chemical identified on page 2 trade secret?
☐ Yes (Answer question 2.2; Attach substantiation forms) ☒ NO (Do not answer 2.2; Go to Section 3)

**2.2** Is this copy ☐ Sanitized ☐ Unsanitized (Answer only if "YES" in 2.1)

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| W. GREGORY WUEST MGR, GLOBAL QUAL, ENVIRONMENT, HEALTH, SAFETY | | 06/30/2005 |

### SECTION 4. FACILITY IDENTIFICATION

**4.1** TRI Facility ID Number: 11590PRKNL1101P

Facility or Establishment Name: SULZER METCO (US), INC.

Facility or Establishment Name or Mailing Address (if different from street address):

Street: 1101 PROSPECT AVENUE

Mailing Address: NA

City/County/State/Zip Code: WESTBURY NASSAU NY 11590

City/State/Zip Code:

Country (Non-US):

**4.2** This report contains information for: (Important: check a or b; check c or d if applicable) a. ☒ An entire facility b. ☐ Part of a facility c. ☐ A Federal facility d. ☐ GOCO

**4.3** Technical Contact Name: PETER DIPIETRANTONIO — Telephone Number (include area code): (516) 338-2337

Email Address: PETER.DIPIETRANTONIO@SULZER.COM

**4.4** Public Contact Name: W. GREGORY WUEST — Telephone Number (include area code): (516) 338-2217

**4.5** SIC Code (s) (4 digits):

| Primary | | | | | |
|---|---|---|---|---|---|
| a. 3559 | b. | c. | d. | e. | f. |

**4.6**

| Latitude | Degrees | Minutes | Seconds | Longitude | Degrees | Minutes | Seconds |
|---|---|---|---|---|---|---|---|
| | 40 | 45 | 50 | | 073 | 33 | 10 |

| 4.7 Dun & Bradstreet Number(s) (9 digits) | 4.8 EPA Identification Number (RCRA I.D. No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. 152084398 | a. NYD131318651 | a. NA | a. NA |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| 5.1 | Name of Parent Company | NA ☐ | SULZER US INDUSTRIES HOLDING INC. |
| 5.2 | Parent Company's Dun & Bradstreet Number | NA ☐ | 001826957 |

# EPA FORM R
# PART II. CHEMICAL - SPECIFIC INFORMATION

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category or Generic Name |
| Copper |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440-50-8 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | Copper |
| 1.3 | Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.) |
| | NA |

**1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.**
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA | | | | | | | | | | | | | | | | |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |
| | NA |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | | 3.2 Process the toxic chemical: | | 3.3 Otherwise use the toxic chemical: | |
|---|---|---|---|---|---|
| a. | Produce b. Import | | | | |
| | If produce or import: | a. | As a reactant | a. | As a chemical processing aid |
| c. | For on-site use/processing | b. X | As a formulation component | b. | As a manufacturing aid |
| d. | For sale/distribution | c. | As an article component | c. | Ancillary or other use |
| e. | As a byproduct | d. X | Repackaging | | |
| f. | As an impurity | e. | As an impurity | | |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 (Enter two-digit code from instruction package.) | |

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA | 0 | O | |
| 5.2 | Stack or point air emissions | NA | 0 | O | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |

**If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box and indicate the Part II, Section 5.3 page number in this box.** (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Copper |

### SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release ( pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I Wells | X | | |
| 5.4.2 | Underground Injection onsite to Class II-V Wells | X | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA Subtitle C landfills | X | | |
| 5.5.1.B | Other landfills | X | | |
| 5.5.2 | Land treatment/application farming | X | | |
| 5.5.3A | RCRA Subtitle C Surface Impoundments | X | | |
| 5.5.3B | Other surface impoundments | X | | |
| 5.5.4 | Other disposal | X | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

#### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.1.B. 1 | POTW Name | NA | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |
| 6.1.B. | POTW Name | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |

**If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box** [ ] **and indicate the Part II, Section 6.1 page number in this box** [ ] **(example: 1,2,3, etc.)**

#### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 6.2. 1 Off-Site EPA Identification Number (RCRA ID No.) | NA | | | | | | | |
| Off-Site Location Name | I. GANZ | | | | | | | |
| Off-site Address | 96 WYTHE AVENUE | | | | | | | |
| City | BROOKLYN | State | NY | County | KINGS | Zip | 11211 | Country (Non-US) |
| Is location under control of reporting facility or parent company? | | | | | | Yes | X | No |

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Copper |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 30884 | 1. M | 1. M24 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 2** Off-Site EPA Identification Number (RCRA ID No.) OHD000816629

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Off-Site location Name | Clean Harbors Spring Grove Resource Recovery | | | | | | | | |
| Off-site Address | 4879 Spring Grove Avenue | | | | | | | | |
| City | Cincinnati | State | OH | County | Hamilton | Zip | 45232 | Country (Non-US) | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 63 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.1a | 7A.1b | 1 | | 2 | | 3 | 4 | | 7A.1c | 7A.1d | 7A.1e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.2a | 7A.2b | 1 | | 2 | | 3 | 4 | | 7A.2c | 7A.2d | 7A.2e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.3a | 7A.3b | 1 | | 2 | | 3 | 4 | | 7A.3c | 7A.3d | 7A.3e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.4a | 7A.4b | 1 | | 2 | | 3 | 4 | | 7A.4c | 7A.4d | 7A.4e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.5a | 7A.5b | 1 | | 2 | | 3 | 4 | | 7A.5c | 7A.5d | 7A.5e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [3]
**and indicate the Part II, Section 6.2/7A page number in this box:** [1] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R
## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Copper |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 3** Off-Site EPA Identification Number (RCRA ID No.): MDD980555189

Off-Site location Name: Clean Harbors of Baltimore

Off-site Address: 1910 Russell Street

| City | State | County | Zip | Country (Non-US) |
|---|---|---|---|---|
| Baltimore | MD | Baltimore | 21230 | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 10 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|
| 7A.6a | 7A.6b: 1 2 3 4 5 6 7 8 | 7A.6c | 7A.6d % | 7A.6e Yes No |
| 7A.7a | 7A.7b: 1 2 3 4 5 6 7 8 | 7A.7c | 7A.7d % | 7A.7e Yes No |
| 7A.8a | 7A.8b: 1 2 3 4 5 6 7 8 | 7A.8c | 7A.8d % | 7A.8e Yes No |
| 7A.9a | 7A.9b: 1 2 3 4 5 6 7 8 | 7A.9c | 7A.9d % | 7A.9e Yes No |
| 7A.10a | 7A.10b: 1 2 3 4 5 6 7 8 | 7A.10c | 7A.10d % | 7A.10e Yes No |

If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box: 3

and indicate the Part II, Section 6.2/7A page number in this box: 2 (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Copper |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

6.2. 4 Off-Site EPA Identification Number (RCRA ID No.): NA

Off-Site location Name: Gershow Recycling

Off-site Address: 71 Peconic Avenue

| City | State | County | Zip | Country (Non-US) |
|---|---|---|---|---|
| Medford | NY | Suffolk | 11763 | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 35103 | 1. M | 1. M24 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|
| 7A.11a | 7A.11b: 1 2 3 4 5 6 7 8 | 7A.11c | 7A.11d % | 7A.11e Yes No |
| 7A.12a | 7A.12b: 1 2 3 4 5 6 7 8 | 7A.12c | 7A.12d % | 7A.12e Yes No |
| 7A.13a | 7A.13b: 1 2 3 4 5 6 7 8 | 7A.13c | 7A.13d % | 7A.13e Yes No |
| 7A.14a | 7A.14b: 1 2 3 4 5 6 7 8 | 7A.14c | 7A.14d % | 7A.14e Yes No |
| 7A.15a | 7A.15b: 1 2 3 4 5 6 7 8 | 7A.15c | 7A.15d % | 7A.15e Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [3]

**and indicate the Part II, Section 6.2/7A page number in this box:** [3] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Copper |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

X — Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

| 1 | 2 | 3 |
|---|---|---|
| | | |

## SECTION 7C. ON-SITE RECYCLING PROCESSES

X — Not Applicable (NA) - Check here if no on-site recyling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| | | | | |
| **6** | **7** | **8** | **9** | **10** |
| | | | | |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | 0 | 0 | 0 | 0 |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | 35 | 73 | 100 | 100 |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | 12177 | 65987 | 50000 | 50000 |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | NA | | | |
| 8.9 | Production ratio or activity index | 4.10 | | | |
| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | | |

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | Yes | No |
|---|---|---|---|
| 8.11 | Is additional information on source reduction, recycling, or pollution control activities included with this report ? (Check one Box) | | X |



*For Dioxin or Dioxin-like compounds, report in grams/year

EPA United States Environmental Protection Agency

# FORM R

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number: 11590PRKNL1101P

Toxic Chemical, Category or Generic Name: Nickel

**WHERE TO SEND COMPLETED FORMS:** 1. TRI Data Processing Center, P.O.Box 1513, Lanham, MD 20703-1513 2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR 2004

### SECTION 2. TRADE SECRET INFORMATION

2.1 Are you claiming the toxic chemical identified on page 2 trade secret?
[ ] Yes (Answer question 2.2; Attach substantiation forms) [X] NO (Do not answer 2.2; Go to Section 3)

2.2 Is this copy [ ] Sanitized [ ] Unsanitized (Answer only if "YES" in 2.1)

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| W. GREGORY WUEST MGR, GLOBAL QUAL, ENVIRONMENT, HEALTH, SAFETY | | 06/30/2005 |

### SECTION 4. FACILITY IDENTIFICATION

4.1 TRI Facility ID Number: 11590PRKNL1101P

Facility or Establishment Name: SULZER METCO (US), INC.

Facility or Establishment Name or Mailing Address (if different from street address):

Street: 1101 PROSPECT AVENUE

Mailing Address: NA

City/County/State/Zip Code: WESTBURY NASSAU NY 11590

City/State/Zip Code:

Country (Non-US):

4.2 This report contains information for: (Important: check a or b; check c or d if applicable) a. [X] An entire facility b. [ ] Part of a facility c. [ ] A Federal facility d. [ ] GOCO

4.3 Technical Contact Name: PETER DIPIETRANTONIO; Telephone Number (include area code): (516) 338-2337

Email Address: PETER.DIPIETRANTONIO@SULZER.COM

4.4 Public Contact Name: W. GREGORY WUEST; Telephone Number (include area code): (516) 338-2217

4.5 SIC Code (s) (4 digits):

| Primary | | | | | |
|---|---|---|---|---|---|
| a. 3559 | b. | c. | d. | e. | f. |

4.6 Latitude / Longitude:

| Latitude Degrees | Latitude Minutes | Latitude Seconds | Longitude Degrees | Longitude Minutes | Longitude Seconds |
|---|---|---|---|---|---|
| 40 | 45 | 50 | 073 | 33 | 10 |

| 4.7 Dun & Bradstreet Number(s) (9 digits) | 4.8 EPA Identification Number (RCRA I.D. No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. 152084398 | a. NYD131318651 | a. NA | a. NA |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| 5.1 | Name of Parent Company | NA [ ] | SULZER US INDUSTRIES HOLDING INC. |
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | 001826957 |

# EPA FORM R
## PART II. CHEMICAL - SPECIFIC INFORMATION

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category or Generic Name |
| Nickel |

### SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440-02-0 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | Nickel |
| 1.3 | Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.) |
| | NA |

**1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.**
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA | | | | | | | | | | | | | | | | |

### SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |
| | NA |

### SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | | 3.2 Process the toxic chemical: | | 3.3 Otherwise use the toxic chemical: | |
|---|---|---|---|---|---|
| a. | Produce b. Import | | | | |
| | If produce or import: | a. | As a reactant | a. | As a chemical processing aid |
| c. | For on-site use/processing | b. X | As a formulation component | b. | As a manufacturing aid |
| d. | For sale/distribution | c. | As an article component | c. | Ancillary or other use |
| e. | As a byproduct | d. X | Repackaging | | |
| f. | As an impurity | e. | As an impurity | | |

### SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 (Enter two-digit code from instruction package.) | |

### SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA | 0 | O | |
| 5.2 | Stack or point air emissions | NA | 2 | E | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |

**If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box and indicate the Part II, Section 5.3 page number in this box.** (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

### SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release ( pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I Wells | X | | |
| 5.4.2 | Underground Injection onsite to Class II-V Wells | X | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA Subtitle C landfills | X | | |
| 5.5.1.B | Other landfills | X | | |
| 5.5.2 | Land treatment/application farming | X | | |
| 5.5.3A | RCRA Subtitle C Surface Impoundments | X | | |
| 5.5.3B | Other surface impoundments | X | | |
| 5.5.4 | Other disposal | X | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

#### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.1.B. 1 | POTW Name | NA | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |
| 6.1.B. | POTW Name | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |

**If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box [ ] and indicate the Part II, Section 6.1 page number in this box [ ] (example: 1,2,3, etc.)**

#### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 6.2. 1 Off-Site EPA Identification Number (RCRA ID No.) | NA | | | | | | | |
| Off-Site Location Name | I. GANZ | | | | | | | |
| Off-site Address | 96 WYTHE AVENUE | | | | | | | |
| City | BROOKLYN | State | NY | County | KINGS | Zip | 11211 | Country (Non-US) |
| Is location under control of reporting facility or parent company? | | | | | Yes | X | No | |

* For Dioxin or Dioxin-like compounds, report in grams/year

EPA Form 9350-1 (Rev. 2/2004 ) - Previous editions are obsolete.

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 30 | 1. C | 1. M24 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 2** Off-Site EPA Identification Number (RCRA ID No.) OHD000816629

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Off-Site location Name | Clean Harbors Spring Grove Resource Recovery | | | | | | | | |
| Off-site Address | 4879 Spring Grove Avenue | | | | | | | | |
| City | Cincinnati | State | OH | County | Hamilton | Zip | 45232 | Country (Non-US) | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 2224 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.1a | 7A.1b | 1 | | 2 | | 3 | | 4 | 7A.1c | 7A.1d | 7A.1e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.2a | 7A.2b | 1 | | 2 | | 3 | | 4 | 7A.2c | 7A.2d | 7A.2e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.3a | 7A.3b | 1 | | 2 | | 3 | | 4 | 7A.3c | 7A.3d | 7A.3e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.4a | 7A.4b | 1 | | 2 | | 3 | | 4 | 7A.4c | 7A.4d | 7A.4e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.5a | 7A.5b | 1 | | 2 | | 3 | | 4 | 7A.5c | 7A.5d | 7A.5e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [5]
**and indicate the Part II, Section 6.2/7A page number in this box:** [1] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 3** Off-Site EPA Identification Number (RCRA ID No.): CTD000604488

Off-Site location Name: Clean Harbors of Connecticut

Off-site Address: 51 Broderick Road

| City | State | County | Zip | Country (Non-US) |
|---|---|---|---|---|
| Bristol | CT | Hartford | 06010 | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 434 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|
| 7A.6a | 7A.6b: 1 2 3 4 5 6 7 8 | 7A.6c | 7A.6d % | 7A.6e Yes No |
| 7A.7a | 7A.7b: 1 2 3 4 5 6 7 8 | 7A.7c | 7A.7d % | 7A.7e Yes No |
| 7A.8a | 7A.8b: 1 2 3 4 5 6 7 8 | 7A.8c | 7A.8d % | 7A.8e Yes No |
| 7A.9a | 7A.9b: 1 2 3 4 5 6 7 8 | 7A.9c | 7A.9d % | 7A.9e Yes No |
| 7A.10a | 7A.10b: 1 2 3 4 5 6 7 8 | 7A.10c | 7A.10d % | 7A.10e Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [5]
**and indicate the Part II, Section 6.2/7A page number in this box:** [2] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year

EPA Form 9350-1 (Rev. 2/2004 ) - Previous editions are obsolete.

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R
## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 4** Off-Site EPA Identification Number (RCRA ID No.): MDD980555189

Off-Site location Name: Clean Harbors of Baltimore

Off-site Address: 1910 Russell Street

| City | Baltimore | State | MD | County | Baltimore | Zip | 21230 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 249 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.11a | 7A.11b | 1 | | 2 | | 3 | | 4 | 7A.11c | 7A.11d | 7A.11e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.12a | 7A.12b | 1 | | 2 | | 3 | | 4 | 7A.12c | 7A.12d | 7A.12e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.13a | 7A.13b | 1 | | 2 | | 3 | | 4 | 7A.13c | 7A.13d | 7A.13e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.14a | 7A.14b | 1 | | 2 | | 3 | | 4 | 7A.14c | 7A.14d | 7A.14e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.15a | 7A.15b | 1 | | 2 | | 3 | | 4 | 7A.15c | 7A.15d | 7A.15e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [5]

**and indicate the Part II, Section 6.2/7A page number in this box:** [3] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

| 6.2. 5 Off-Site EPA Identification Number (RCRA ID No.) | NA |
|---|---|
| Off-Site location Name | PM Recovery |
| Off-site Address | 420 S. Cascade Street |

| City | New Castle | State | PA | County | Lawrence | Zip | 16101 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 72254 | 1. M | 1. M24 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.16a | 7A.16b | 1 | | 2 | | 3 | | 4 | 7A.16c | 7A.16d | 7A.16e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.17a | 7A.17b | 1 | | 2 | | 3 | | 4 | 7A.17c | 7A.17d | 7A.17e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.18a | 7A.18b | 1 | | 2 | | 3 | | 4 | 7A.18c | 7A.18d | 7A.18e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.19a | 7A.19b | 1 | | 2 | | 3 | | 4 | 7A.19c | 7A.19d | 7A.19e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.20a | 7A.20b | 1 | | 2 | | 3 | | 4 | 7A.20c | 7A.20d | 7A.20e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box [5]
and indicate the Part II, Section 6.2/7A page number in this box: [4] (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 6** Off-Site EPA Identification Number (RCRA ID No.): NA

Off-Site location Name: Gershow Recycling

Off-site Address: 71 Peconic Avenue

City: Medford | State: NY | County: Suffolk | Zip: 11763 | Country (Non-US):

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 33 | 1. C | 1. M24 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.21a | 7A.21b | 1 | | 2 | | 3 | | 4 | 7A.21c | 7A.21d | 7A.21e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.22a | 7A.22b | 1 | | 2 | | 3 | | 4 | 7A.22c | 7A.22d | 7A.22e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.23a | 7A.23b | 1 | | 2 | | 3 | | 4 | 7A.23c | 7A.23d | 7A.23e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.24a | 7A.24b | 1 | | 2 | | 3 | | 4 | 7A.24c | 7A.24d | 7A.24e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.25a | 7A.25b | 1 | | 2 | | 3 | | 4 | 7A.25c | 7A.25d | 7A.25e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [5]

**and indicate the Part II, Section 6.2/7A page number in this box:** [5] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

X — Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

| 1 | 2 | 3 |
|---|---|---|
| | | |

## SECTION 7C. ON-SITE RECYCLING PROCESSES

X — Not Applicable (NA) - Check here if no on-site recyling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| | | | | |
| **6** | **7** | **8** | **9** | **10** |
| | | | | |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | NA | 2 | 2 | 2 |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | NA | 2907 | 3000 | 3000 |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | NA | 72317 | 75000 | 75000 |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | | NA | |
| 8.9 | Production ratio or activity index | | | NA | |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | Yes | No |
|---|---|---|---|
| 8.11 | Is additional information on source reduction, recycling, or pollution control activities included with this report ? (Check one Box) | | X |



*For Dioxin or Dioxin-like compounds, report in grams/year

EPA

United States Environmental Protection Agency

# FORM R

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number
11801PRKNL220MI

Toxic Chemical, Category or Generic Name
Chromium

**WHERE TO SEND COMPLETED FORMS:** 1. TRI Data Processing Center, P.O.Box 1513, Lanham, MD 20703-1513 2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR 2004

### SECTION 2. TRADE SECRET INFORMATION

**2.1** Are you claiming the toxic chemical identified on page 2 trade secret?
[ ] Yes (Answer question 2.2; Attach substantiation forms) [X] NO (Do not answer 2.2; Go to Section 3)

**2.2** Is this copy [ ] Sanitized [ ] Unsanitized (Answer only if "YES" in 2.1)

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| W. GREGORY WUEST MGR, GLOBAL QUAL, ENVIRONMENT, SAFETY, HEALTH | | 06/30/2005 |

### SECTION 4. FACILITY IDENTIFICATION

**4.1**

| Facility or Establishment Name | TRI Facility ID Number | Facility or Establishment Name or Mailing Address (if different from street address) |
|---|---|---|
| SULZER METCO (US), INC. | 11801PRKNL220MI | SULZER METCO (US), INC. |

| Street | Mailing Address |
|---|---|
| 220 MILLER PLACE | 1101 PROSPECT AVENUE |

| City/County/State/Zip Code | City/State/Zip Code | Country (Non-US |
|---|---|---|
| HICKSVILLE NASSAU NY 11801 | WESTBURY NY 11590 | |

**4.2** This report contains information for: (Important: check a or b; check c or d if applicable) a. [X] An entire facility b. [ ] Part of a facility c. [ ] A Federal facility d. [ ] GOCO

| | | | |
|---|---|---|---|
| **4.3** | Technical Contact Name | PETER DIPIETRANTONIO | Telephone Number (include area code) (516) 338-2337 |
| | Email Address | PETER.DIPIETRANTONIO@SULZER.COM | |
| **4.4** | Public Contact Name | W. GREGORY WUEST | Telephone Number (include area code) (516) 338-2217 |

| **4.5** SIC Code (s) (4 digits) | Primary | b. | c. | d. | e. | f. |
|---|---|---|---|---|---|---|
| | a. 3499 | | | | | |

| **4.6** | Latitude | Degrees | Minutes | Seconds | Longitude | Degrees | Minutes | Seconds |
|---|---|---|---|---|---|---|---|---|
| | | 40 | 47 | 10 | | 073 | 31 | 00 |

| **4.7** Dun & Bradstreet Number(s) (9 digits) | **4.8** EPA Identification Number (RCRA I.D. No.) (12 characters) | **4.9** Facility NPDES Permit Number(s) (9 characters) | **4.10** Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. 152084398 | a. NYD981558570 | a. NA | a. NA |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| **5.1** | Name of Parent Company | NA [ ] | SULZER US INDUSTRIES HOLDING INC. |
| **5.2** | Parent Company's Dun & Bradstreet Number | NA [ ] | 001826957 |

# EPA FORM R
# PART II. CHEMICAL - SPECIFIC INFORMATION

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category or Generic Name |
| Chromium |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440-47-3 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | Chromium |
| 1.3 | Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.) |
| | NA |

**1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.**
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA | | | | | | | | | | | | | | | | |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |
| | NA |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
**(Important: Check all that apply.)**

| 3.1 Manufacture the toxic chemical: | | 3.2 Process the toxic chemical: | | 3.3 Otherwise use the toxic chemical: | |
|---|---|---|---|---|---|
| a. | Produce b. Import | | | | |
| | If produce or import: | a. | As a reactant | a. | As a chemical processing aid |
| c. | For on-site use/processing | b. X | As a formulation component | b. | As a manufacturing aid |
| d. | For sale/distribution | c. | As an article component | c. | Ancillary or other use |
| e. | As a byproduct | d. X | Repackaging | | |
| f. | As an impurity | e. | As an impurity | | |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 | (Enter two-digit code from instruction package.) |

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA | 0 | O | |
| 5.2 | Stack or point air emissions | NA | 9 | E | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |

**If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box and indicate the Part II, Section 5.3 page number in this box.** **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Chromium |

### SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release ( pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground injection onsite to Class I Wells | X | | |
| 5.4.2 | Underground injection onsite to Class II-V Wells | X | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA Subtitle C landfills | X | | |
| 5.5.1.B | Other landfills | X | | |
| 5.5.2 | Land treatment/application farming | X | | |
| 5.5.3A | RCRA Subtitle C Surface Impoundments | X | | |
| 5.5.3B | Other surface impoundments | X | | |
| 5.5.4 | Other disposal | X | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.1.B. 1 | POTW Name | NA | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |
| 6.1.B. | POTW Name | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |

**If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box** [ ] **and indicate the Part II, Section 6.1 page number in this box** [ ] **(example: 1,2,3, etc.)**

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| 6.2. 1 Off-Site EPA Identification Number (RCRA ID No.) | CTD000604488 |
|---|---|
| Off-Site Location Name | Clean Harbors of Connecticut |
| Off-site Address | 51 Broderick Road |

| City | Bristol | State | CT | County | Hartford | Zip | 06010 | Country (Non-US) |
|---|---|---|---|---|---|---|---|---|

| Is location under control of reporting facility or parent company? | Yes | X | No |
|---|---|---|---|

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Chromium |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 100 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 2** Off-Site EPA Identification Number (RCRA ID No.) OHD000816629

| Off-Site location Name | Clean Harbors Spring Grove Resource Recovery | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Off-site Address | 4879 Spring Grove Avenue | | | | | | | |
| City | Cincinnati | State | OH | County | Hamilton | Zip | 45232 | Country (Non-US) |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 6444 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.1a | 7A.1b | 1 | | 2 | | 3 | | 4 | 7A.1c | 7A.1d | 7A.1e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.2a | 7A.2b | 1 | | 2 | | 3 | | 4 | 7A.2c | 7A.2d | 7A.2e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.3a | 7A.3b | 1 | | 2 | | 3 | | 4 | 7A.3c | 7A.3d | 7A.3e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.4a | 7A.4b | 1 | | 2 | | 3 | | 4 | 7A.4c | 7A.4d | 7A.4e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.5a | 7A.5b | 1 | | 2 | | 3 | | 4 | 7A.5c | 7A.5d | 7A.5e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [3]
**and indicate the Part II, Section 6.2/7A page number in this box:** [1] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Chromium |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 3** Off-Site EPA Identification Number (RCRA ID No.) NYD505092870

Off-Site location Name: RGM

Off-site Address: 972 Nichols Road

| City | Deer Park | State | NY | County | Suffolk | Zip | 11729 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 80 | 1. M | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.6a | 7A.6b | 1 | | 2 | | 3 | | 4 | 7A.6c | 7A.6d | 7A.6e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.7a | 7A.7b | 1 | | 2 | | 3 | | 4 | 7A.7c | 7A.7d | 7A.7e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.8a | 7A.8b | 1 | | 2 | | 3 | | 4 | 7A.8c | 7A.8d | 7A.8e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.9a | 7A.9b | 1 | | 2 | | 3 | | 4 | 7A.9c | 7A.9d | 7A.9e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.10a | 7A.10b | 1 | | 2 | | 3 | | 4 | 7A.10c | 7A.10d | 7A.10e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [3]
**and indicate the Part II, Section 6.2/7A page number in this box:** [2] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R
## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Chromium |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 4** Off-Site EPA Identification Number (RCRA ID No.) MDD980555189

Off-Site location Name: Clean Harbors of Baltimore

Off-site Address: 1910 Russell St.

| City | State | County | Zip | Country (Non-US) |
|---|---|---|---|---|
| Baltimore | MD | Baltimore | 21230 | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 275 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|
| 7A.11a | 7A.11b: 1 2 3 4 5 6 7 8 | 7A.11c | 7A.11d % | 7A.11e Yes No |
| 7A.12a | 7A.12b: 1 2 3 4 5 6 7 8 | 7A.12c | 7A.12d % | 7A.12e Yes No |
| 7A.13a | 7A.13b: 1 2 3 4 5 6 7 8 | 7A.13c | 7A.13d % | 7A.13e Yes No |
| 7A.14a | 7A.14b: 1 2 3 4 5 6 7 8 | 7A.14c | 7A.14d % | 7A.14e Yes No |
| 7A.15a | 7A.15b: 1 2 3 4 5 6 7 8 | 7A.15c | 7A.15d % | 7A.15e Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [3]
**and indicate the Part II, Section 6.2/7A page number in this box:** [3] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Chromium |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

X | Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

| 1 | | 2 | | 3 | |
|---|---|---|---|---|---|

## SECTION 7C. ON-SITE RECYCLING PROCESSES

X | Not Applicable (NA) - Check here if no on-site recyling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

| 1 | | 2 | | 3 | | 4 | | 5 | |
|---|---|---|---|---|---|---|---|---|---|
| 6 | | 7 | | 8 | | 9 | | 10 | |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | 19 | 9 | NA | NA |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | 1888 | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | NA | 6819 | NA | NA |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | NA | NA | NA | NA |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | 80 | | |
| 8.9 | Production ratio or activity index | | 0.97 | | |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | Yes | No |
|---|---|---|---|
| 8.11 | Is additional information on source reduction, recycling, or pollution control activities included with this report ? (Check one Box) | | X |



*For Dioxin or Dioxin-like compounds, report in grams/year

EPA

United States Environmental Protection Agency

# FORM R

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number: 11801PRKNL220MI

Toxic Chemical, Category or Generic Name: Aluminum (fume or dust)

**WHERE TO SEND COMPLETED FORMS:** 1. TRI Data Processing Center, P.O.Box 1513, Lanham, MD 20703-1513 2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR 2004

### SECTION 2. TRADE SECRET INFORMATION

2.1 Are you claiming the toxic chemical identified on page 2 trade secret?
[ ] Yes (Answer question 2.2; Attach substantiation forms) [X] NO (Do not answer 2.2; Go to Section 3)

2.2 Is this copy [ ] Sanitized [ ] Unsanitized (Answer only if "YES" in 2.1)

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| W. GREGORY WUEST MGR, GLOBAL QUAL, ENVIRONMENT, SAFETY, HEALTH | | 06/30/2005 |

### SECTION 4. FACILITY IDENTIFICATION

4.1 TRI Facility ID Number: 11801PRKNL220MI

| Facility or Establishment Name | Facility or Establishment Name or Mailing Address (if different from street address) |
|---|---|
| SULZER METCO (US), INC. | SULZER METCO (US), INC. |
| Street: 220 MILLER PLACE | Mailing Address: 1101 PROSPECT AVENUE |
| City/County/State/Zip Code: HICKSVILLE NASSAU NY 11801 | City/State/Zip Code: WESTBURY NY 11590 Country (Non-US): |

4.2 This report contains information for: (Important: check a or b; check c or d if applicable) a. [X] An entire facility b. [ ] Part of a facility c. [ ] A Federal facility d. [ ] GOCO

| | | |
|---|---|---|
| 4.3 | Technical Contact Name: PETER DIPIETRANTONIO | Telephone Number (include area code): (516) 338-2337 |
| | Email Address: PETER.DIPIETRANTONIO@SULZER.COM | |
| 4.4 | Public Contact Name: W. GREGORY WUEST | Telephone Number (include area code): (516) 338-2217 |

4.5 SIC Code (s) (4 digits)

| Primary | | | | | |
|---|---|---|---|---|---|
| a. 3499 | b. | c. | d. | e. | f. |

4.6 Latitude / Longitude

| Latitude Degrees | Latitude Minutes | Latitude Seconds | Longitude Degrees | Longitude Minutes | Longitude Seconds |
|---|---|---|---|---|---|
| 40 | 47 | 10 | 073 | 31 | 00 |

| 4.7 Dun & Bradstreet Number(s) (9 digits) | 4.8 EPA Identification Number (RCRA I.D. No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. 152084398 | a. NYD981558570 | a. NA | a. NA |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| 5.1 | Name of Parent Company | NA [ ] | SULZER US INDUSTRIES HOLDING INC. |
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | 001826957 |

# EPA FORM R
# PART II. CHEMICAL - SPECIFIC INFORMATION

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category or Generic Name |
| Aluminum (fume or dust) |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7429-90-5 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | Aluminum (fume or dust) |
| 1.3 | Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.) |
| | NA |

**1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.**
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA | | | | | | | | | | | | | | | | |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |
| | NA |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | | 3.2 Process the toxic chemical: | | 3.3 Otherwise use the toxic chemical: | |
|---|---|---|---|---|---|
| a. | Produce b. Import | | | | |
| | If produce or import: | a. | As a reactant | a. | As a chemical processing aid |
| c. | For on-site use/processing | b. X | As a formulation component | b. | As a manufacturing aid |
| d. | For sale/distribution | c. | As an article component | c. | Ancillary or other use |
| e. | As a byproduct | d. X | Repackaging | | |
| f. | As an impurity | e. | As an impurity | | |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 | (Enter two-digit code from instruction package.) |

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA | 0 | O | |
| 5.2 | Stack or point air emissions | NA | 13 | E | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |

**If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box and indicate the Part II, Section 5.3 page number in this box.** (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Aluminum (fume or dust) |

### SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release ( pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I Wells | X | | |
| 5.4.2 | Underground Injection onsite to Class II-V Wells | X | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA Subtitle C landfills | X | | |
| 5.5.1.B | Other landfills | X | | |
| 5.5.2 | Land treatment/application farming | X | | |
| 5.5.3A | RCRA Subtitle C Surface Impoundments | X | | |
| 5.5.3B | Other surface impoundments | X | | |
| 5.5.4 | Other disposal | X | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

#### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.1.B. 1 | POTW Name | NA | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |
| 6.1.B. | POTW Name | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |

**If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box [ ] and indicate the Part II, Section 6.1 page number in this box [ ] (example: 1,2,3, etc.)**

#### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 6.2. 1 Off-Site EPA Identification Number (RCRA ID No.) | | | | | CTD000604488 | | | |
| Off-Site Location Name | Clean Harbors of Connecticut | | | | | | | |
| Off-site Address | 51 Broderick Road | | | | | | | |
| City | Bristol | State | CT | County | Hartford | Zip | 06010 | Country (Non-US) |
| Is location under control of reporting facility or parent company? | | | | | | | Yes X | No |

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Aluminum (fume or dust) |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 100 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 2** Off-Site EPA Identification Number (RCRA ID No.) OHD000816629

| Off-Site location Name | Clean Harbors Spring Grove Resource Recovery | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Off-site Address | 4879 Spring Grove Avenue | | | | | | | |
| City | Cincinnati | State | OH | County | Hamilton | Zip | 45232 | Country (Non-US) |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 9324 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

X Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.1a | 7A.1b | 1 | | 2 | | 3 | | | 7A.1c | 7A.1d | 7A.1e |
| | 4 | | 5 | | 6 | | 7 | | | % | Yes No |
| 7A.2a | 7A.2b | 1 | | 2 | | 3 | | | 7A.2c | 7A.2d | 7A.2e |
| | 4 | | 5 | | 6 | | 7 | | | % | Yes No |
| 7A.3a | 7A.3b | 1 | | 2 | | 3 | | | 7A.3c | 7A.3d | 7A.3e |
| | 4 | | 5 | | 6 | | 7 | | | % | Yes No |
| 7A.4a | 7A.4b | 1 | | 2 | | 3 | | | 7A.4c | 7A.4d | 7A.4e |
| | 4 | | 5 | | 6 | | 7 | | | % | Yes No |
| 7A.5a | 7A.5b | 1 | | 2 | | 3 | | | 7A.5c | 7A.5d | 7A.5e |
| | 4 | | 5 | | 6 | | 7 | | | % | Yes No |

If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box [3]
and indicate the Part II, Section 6.2/7A page number in this box: [1] (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R
## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Aluminum (fume or dust) |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 3** Off-Site EPA Identification Number (RCRA ID No.): NYD505092870

Off-Site location Name: RGM

Off-site Address: 972 Nichols Road

| City | State | County | Zip | Country (Non-US) |
|---|---|---|---|---|
| Deer Park | NY | Suffolk | 11729 | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 51 | 1. O | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|
| 7A.6a | 7A.6b: 1 2 3 4 5 6 7 8 | 7A.6c | 7A.6d % | 7A.6e Yes No |
| 7A.7a | 7A.7b: 1 2 3 4 5 6 7 8 | 7A.7c | 7A.7d % | 7A.7e Yes No |
| 7A.8a | 7A.8b: 1 2 3 4 5 6 7 8 | 7A.8c | 7A.8d % | 7A.8e Yes No |
| 7A.9a | 7A.9b: 1 2 3 4 5 6 7 8 | 7A.9c | 7A.9d % | 7A.9e Yes No |
| 7A.10a | 7A.10b: 1 2 3 4 5 6 7 8 | 7A.10c | 7A.10d % | 7A.10e Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [3]
**and indicate the Part II, Section 6.2/7A page number in this box:** [2] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R
## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Aluminum (fume or dust) |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

X — Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

| 1 | | 2 | | 3 | |
|---|---|---|---|---|---|

## SECTION 7C. ON-SITE RECYCLING PROCESSES

X — Not Applicable (NA) - Check here if no on-site recyling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

| 1 | | 2 | | 3 | | 4 | | 5 | |
|---|---|---|---|---|---|---|---|---|---|
| 6 | | 7 | | 8 | | 9 | | 10 | |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | 23 | 13 | NA | NA |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | 2279 | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | NA | 9822 | NA | NA |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | NA | NA | NA | NA |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | 51 | | | |
| 8.9 | Production ratio or activity index | 0.58 | | | |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | Yes | No |
|---|---|---|---|
| 8.11 | Is additional information on source reduction, recycling, or pollution control activities included with this report ? (Check one Box) | | X |



*For Dioxin or Dioxin-like compounds, report in grams/year

EPA United States Environmental Protection Agency

# FORM R

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number: 11801PRKNL220MI

Toxic Chemical, Category or Generic Name: Cobalt

**WHERE TO SEND COMPLETED FORMS:** 1. TRI Data Processing Center, P.O.Box 1513, Lanham, MD 20703-1513 2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR 2004

### SECTION 2. TRADE SECRET INFORMATION

2.1 Are you claiming the toxic chemical identified on page 2 trade secret?
[ ] Yes (Answer question 2.2; Attach substantiation forms) [X] NO (Do not answer 2.2; Go to Section 3)

2.2 Is this copy [ ] Sanitized [ ] Unsanitized (Answer only if "YES" in 2.1)

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| W. GREGORY WUEST MGR, GLOBAL QUAL, ENVIRONMENT, SAFETY, HEALTH | | 06/30/2005 |

### SECTION 4. FACILITY IDENTIFICATION

4.1 TRI Facility ID Number: 11801PRKNL220MI

| Facility or Establishment Name | Facility or Establishment Name or Mailing Address (if different from street address) |
|---|---|
| SULZER METCO (US), INC. | SULZER METCO (US), INC. |
| Street: 220 MILLER PLACE | Mailing Address: 1101 PROSPECT AVENUE |
| City/County/State/Zip Code: HICKSVILLE NASSAU NY 11801 | City/State/Zip Code: WESTBURY NY 11590 |
| | Country (Non-US): |

4.2 This report contains information for: (Important: check a or b; check c or d if applicable) a. [X] An entire facility b. [ ] Part of a facility c. [ ] A Federal facility d. [ ] GOCO

| | | | |
|---|---|---|---|
| 4.3 | Technical Contact Name | PETER DIPIETRANTONIO | Telephone Number (include area code): (516) 338-2337 |
| | Email Address | PETER.DIPIETRANTONIO@SULZER.COM | |
| 4.4 | Public Contact Name | W. GREGORY WUEST | Telephone Number (include area code): (516) 338-2217 |

| 4.5 SIC Code (s) (4 digits) | Primary | b. | c. | d. | e. | f. |
|---|---|---|---|---|---|---|
| | a. 3499 | | | | | |

| 4.6 | | Degrees | Minutes | Seconds | | Degrees | Minutes | Seconds |
|---|---|---|---|---|---|---|---|---|
| | Latitude | 40 | 47 | 10 | Longitude | 073 | 31 | 00 |

| 4.7 Dun & Bradstreet Number(s) (9 digits) | 4.8 EPA Identification Number (RCRA I.D. No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. 152084398 | a. NYD981558570 | a. NA | a. NA |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| 5.1 | Name of Parent Company | NA [ ] | SULZER US INDUSTRIES HOLDING INC. |
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | 001826957 |

# EPA FORM R
# PART II. CHEMICAL - SPECIFIC INFORMATION

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category or Generic Name |
| Cobalt |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440-48-4 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | Cobalt |
| 1.3 | Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.) |
| | NA |

**1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.**
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA | | | | | | | | | | | | | | | | |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |
| | NA |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | | 3.2 Process the toxic chemical: | | 3.3 Otherwise use the toxic chemical: | |
|---|---|---|---|---|---|
| a. | Produce b. Import | | | | |
| | If produce or import: | a. | As a reactant | a. | As a chemical processing aid |
| c. | For on-site use/processing | b. X | As a formulation component | b. | As a manufacturing aid |
| d. | For sale/distribution | c. | As an article component | c. | Ancillary or other use |
| e. | As a byproduct | d. X | Repackaging | | |
| f. | As an impurity | e. | As an impurity | | |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 03 | (Enter two-digit code from instruction package.) |

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA | 0 | O | |
| 5.2 | Stack or point air emissions | NA | 5 | E | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |

**If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box and indicate the Part II, Section 5.3 page number in this box.** (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Cobalt |

### SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release ( pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I Wells | X | | |
| 5.4.2 | Underground Injection onsite to Class II-V Wells | X | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA Subtitle C landfills | X | | |
| 5.5.1.B | Other landfills | X | | |
| 5.5.2 | Land treatment/application farming | X | | |
| 5.5.3A | RCRA Subtitle C Surface Impoundments | X | | |
| 5.5.3B | Other surface impoundments | X | | |
| 5.5.4 | Other disposal | X | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.1.B. 1 | POTW Name | NA | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |
| 6.1.B. | POTW Name | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |

**If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box** [ ] **and indicate the Part II, Section 6.1 page number in this box** [ ] **(example: 1,2,3, etc.)**

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 6.2. 1 Off-Site EPA Identification Number (RCRA ID No.) | | | | | CTD000604488 | | | |
| Off-Site Location Name | Clean Harbors of Connecticut | | | | | | | |
| Off-site Address | 51 Broderick Road | | | | | | | |
| City | Bristol | State | CT | County | Hartford | Zip | 06010 | Country (Non-US) |
| Is location under control of reporting facility or parent company? | | | | | | Yes | X | No |

* For Dioxin or Dioxin-like compounds, report in grams/year

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Cobalt |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 400 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 2** Off-Site EPA Identification Number (RCRA ID No.) OHD000816629

| Off-Site location Name | Clean Harbors Spring Grove Resource Recovery | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Off-site Address | 4879 Spring Grove Avenue | | | | | | | |
| City | Cincinnati | State | OH | County | Hamilton | Zip | 45232 | Country (Non-US) |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 3712 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.1a | 7A.1b | 1 | | 2 | | 3 | | 4 | 7A.1c | 7A.1d | 7A.1e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.2a | 7A.2b | 1 | | 2 | | 3 | | 4 | 7A.2c | 7A.2d | 7A.2e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.3a | 7A.3b | 1 | | 2 | | 3 | | 4 | 7A.3c | 7A.3d | 7A.3e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.4a | 7A.4b | 1 | | 2 | | 3 | | 4 | 7A.4c | 7A.4d | 7A.4e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.5a | 7A.5b | 1 | | 2 | | 3 | | 4 | 7A.5c | 7A.5d | 7A.5e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [3]
**and indicate the Part II, Section 6.2/7A page number in this box:** [1] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Cobalt |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 3** Off-Site EPA Identification Number (RCRA ID No.): NYD505092870

Off-Site location Name: RGM

Off-site Address: 972 Nichols Road

| City | State | County | Zip | Country (Non-US) |
|---|---|---|---|---|
| Deer Park | NY | Suffolk | 11729 | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 553 | 1. M | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|
| 7A.6a | 7A.6b: 1 2 3 4 5 6 7 8 | 7A.6c | 7A.6d % | 7A.6e Yes No |
| 7A.7a | 7A.7b: 1 2 3 4 5 6 7 8 | 7A.7c | 7A.7d % | 7A.7e Yes No |
| 7A.8a | 7A.8b: 1 2 3 4 5 6 7 8 | 7A.8c | 7A.8d % | 7A.8e Yes No |
| 7A.9a | 7A.9b: 1 2 3 4 5 6 7 8 | 7A.9c | 7A.9d % | 7A.9e Yes No |
| 7A.10a | 7A.10b: 1 2 3 4 5 6 7 8 | 7A.10c | 7A.10d % | 7A.10e Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [3]
**and indicate the Part II, Section 6.2/7A page number in this box:** [2] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year

EPA Form 9350-1 (Rev. 2/2004 ) - Previous editions are obsolete.

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Cobalt |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 4** Off-Site EPA Identification Number (RCRA ID No.): MDD980555189

Off-Site location Name: Clean Harbors of Baltimore

Off-site Address: 1910 Russell St.

| City | Baltimore | State | MD | County | Baltimore | Zip | 21230 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 158 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.11a | 7A.11b | 1 | | 2 | | 3 | | 4 | 7A.11c | 7A.11d | 7A.11e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.12a | 7A.12b | 1 | | 2 | | 3 | | 4 | 7A.12c | 7A.12d | 7A.12e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.13a | 7A.13b | 1 | | 2 | | 3 | | 4 | 7A.13c | 7A.13d | 7A.13e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.14a | 7A.14b | 1 | | 2 | | 3 | | 4 | 7A.14c | 7A.14d | 7A.14e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.15a | 7A.15b | 1 | | 2 | | 3 | | 4 | 7A.15c | 7A.15d | 7A.15e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box: 3

and indicate the Part II, Section 6.2/7A page number in this box: 3 (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Cobalt |

### SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

X — Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

| 1 | | 2 | | 3 | |
|---|---|---|---|---|---|

### SECTION 7C. ON-SITE RECYCLING PROCESSES

X — Not Applicable (NA) - Check here if no on-site recyling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

| 1 | | 2 | | 3 | | 4 | | 5 | |
|---|---|---|---|---|---|---|---|---|---|
| 6 | | 7 | | 8 | | 9 | | 10 | |

### SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | 6 | 5 | NA | NA |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | 7160 | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | 5 | 4270 | NA | NA |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | NA | NA | NA | NA |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | 553 | | | |
| 8.9 | Production ratio or activity index | 0.92 | | | |

| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | |
|---|---|---|---|---|
| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
| 8.10.1 | NA | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| 8.11 | Is additional information on source reduction, recycling, or pollution control activities included with this report ? (Check one Box) | Yes | No |
|---|---|---|---|
| | | | X |



*For Dioxin or Dioxin-like compounds, report in grams/year

EPA United States Environmental Protection Agency

# FORM R

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number: 11801PRKNL220MI

Toxic Chemical, Category or Generic Name: Chromium Compounds (except for chromite ore mined in the Transvaal Reg

**WHERE TO SEND COMPLETED FORMS:** 1. TRI Data Processing Center, P.O.Box 1513, Lanham, MD 20703-1513 2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR 2004

### SECTION 2. TRADE SECRET INFORMATION

2.1 Are you claiming the toxic chemical identified on page 2 trade secret?
[ ] Yes (Answer question 2.2; Attach substantiation forms) [X] NO (Do not answer 2.2; Go to Section 3)

2.2 Is this copy [ ] Sanitized [ ] Unsanitized (Answer only if "YES" in 2.1)

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| W. GREGORY WUEST MGR, GLOBAL QUAL, ENVIRONMENT, SAFETY, HEALTH | | 06/30/2005 |

### SECTION 4. FACILITY IDENTIFICATION

4.1 TRI Facility ID Number: 11801PRKNL220MI

| Facility or Establishment Name | Facility or Establishment Name or Mailing Address (if different from street address) |
|---|---|
| SULZER METCO (US), INC. | SULZER METCO (US), INC. |
| Street: 220 MILLER PLACE | Mailing Address: 1101 PROSPECT AVENUE |
| City/County/State/Zip Code: HICKSVILLE NASSAU NY 11801 | City/State/Zip Code: WESTBURY NY 11590 |
| | Country (Non-US |

4.2 This report contains information for: (Important: check a or b; check c or d if applicable) a. [X] An entire facility b. [ ] Part of a facility c. [ ] A Federal facility d. [ ] GOCO

| | | |
|---|---|---|
| 4.3 | Technical Contact Name: PETER DIPIETRANTONIO | Telephone Number (include area code): (516) 338-2337 |
| | Email Address: PETER.DIPIETRANTONIO@SULZER.COM | |
| 4.4 | Public Contact Name: W. GREGORY WUEST | Telephone Number (include area code): (516) 338-2217 |

| 4.5 SIC Code (s) (4 digits) | Primary | b. | c. | d. | e. | f. |
|---|---|---|---|---|---|---|
| | a. 3499 | | | | | |

| 4.6 | Latitude | Degrees | Minutes | Seconds | Longitude | Degrees | Minutes | Seconds |
|---|---|---|---|---|---|---|---|---|
| | | 40 | 47 | 10 | | 073 | 31 | 00 |

| 4.7 Dun & Bradstreet Number(s) (9 digits) | 4.8 EPA Identification Number (RCRA I.D. No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. 152084398 | a. NYD981558570 | a. NA | a. NA |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| 5.1 | Name of Parent Company | NA [ ] | SULZER US INDUSTRIES HOLDING INC. |
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | 001826957 |

# EPA FORM R
## PART II. CHEMICAL - SPECIFIC INFORMATION

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category or Generic Name |
| Chromium Compounds (except for chromite ore mi |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) N090 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) Chromium Compounds (except for chromite ore mined in the Transvaal Reg |
| 1.3 | Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.) NA |

**1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.**
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA | | | | | | | | | | | | | | | | |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) NA |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
**(Important: Check all that apply.)**

| 3.1 Manufacture the toxic chemical: | | 3.2 Process the toxic chemical: | | 3.3 Otherwise use the toxic chemical: | |
|---|---|---|---|---|---|
| a. | Produce b. Import | | | | |
| | If produce or import: | a. | As a reactant | a. | As a chemical processing aid |
| c. | For on-site use/processing | b. X | As a formulation component | b. | As a manufacturing aid |
| d. | For sale/distribution | c. | As an article component | c. | Ancillary or other use |
| e. | As a byproduct | d. X | Repackaging | | |
| f. | As an impurity | e. | As an impurity | | |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 (Enter two-digit code from instruction package.) | |

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA | 0 | O | |
| 5.2 | Stack or point air emissions | NA | 7 | E | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |

**If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box and indicate the Part II, Section 5.3 page number in this box.** **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Chromium Compounds (except for chromite ore mi |

### SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release ( pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I Wells | X | | |
| 5.4.2 | Underground Injection onsite to Class II-V Wells | X | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA Subtitle C landfills | X | | |
| 5.5.1.B | Other landfills | X | | |
| 5.5.2 | Land treatment/application farming | X | | |
| 5.5.3A | RCRA Subtitle C Surface Impoundments | X | | |
| 5.5.3B | Other surface impoundments | X | | |
| 5.5.4 | Other disposal | X | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.1.B. 1 | POTW Name | NA | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |
| 6.1.B. | POTW Name | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |

**If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box** [ ] **and Indicate the Part II, Section 6.1 page number in this box** [ ] **(example: 1,2,3, etc.)**

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 6.2. 1 Off-Site EPA Identification Number (RCRA ID No.) | | | | | CTD000604488 | | | |
| Off-Site Location Name | Clean Harbors of Connecticut | | | | | | | |
| Off-site Address | 51 Broderick Road | | | | | | | |
| City | Bristol | State | CT | County | Hartford | Zip | 06010 | Country (Non-US) |

Is location under control of reporting facility or parent company? Yes [X] No

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Chromium Compounds (except for chromite ore m |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 200 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 2** Off-Site EPA Identification Number (RCRA ID No.) OHD000816629

| Off-Site location Name | Clean Harbors Spring Grove Resource Recovery | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Off-site Address | 4879 Spring Grove Avenue | | | | | | | |
| City | Cincinnati | State | OH | County | Hamilton | Zip | 45232 | Country (Non-US) |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 5230 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.1a | 7A.1b | 1 | | 2 | | 3 | | 4 | 7A.1c | 7A.1d | 7A.1e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.2a | 7A.2b | 1 | | 2 | | 3 | | 4 | 7A.2c | 7A.2d | 7A.2e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.3a | 7A.3b | 1 | | 2 | | 3 | | 4 | 7A.3c | 7A.3d | 7A.3e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.4a | 7A.4b | 1 | | 2 | | 3 | | 4 | 7A.4c | 7A.4d | 7A.4e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.5a | 7A.5b | 1 | | 2 | | 3 | | 4 | 7A.5c | 7A.5d | 7A.5e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [3]
**and indicate the Part II, Section 6.2/7A page number in this box:** [1] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Chromium Compounds (except for chromite ore m |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

| 6.2. 3 Off-Site EPA Identification Number (RCRA ID No.) | NYD505092870 |
|---|---|
| Off-Site location Name | RGM |
| Off-site Address | 972 Nichols Road |

| City | Deer Park | State | NY | County | Suffolk | Zip | 11729 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 80 | 1. M | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.6a | 7A.6b | 1 | | 2 | | 3 | | | 7A.6c | 7A.6d | 7A.6e |
| | 4 | | 5 | | 6 | | 7 | | | % | Yes No |
| 7A.7a | 7A.7b | 1 | | 2 | | 3 | | | 7A.7c | 7A.7d | 7A.7e |
| | 4 | | 5 | | 6 | | 7 | | | % | Yes No |
| 7A.8a | 7A.8b | 1 | | 2 | | 3 | | | 7A.8c | 7A.8d | 7A.8e |
| | 4 | | 5 | | 6 | | 7 | | | % | Yes No |
| 7A.9a | 7A.9b | 1 | | 2 | | 3 | | | 7A.9c | 7A.9d | 7A.9e |
| | 4 | | 5 | | 6 | | 7 | | | % | Yes No |
| 7A.10a | 7A.10b | 1 | | 2 | | 3 | | | 7A.10c | 7A.10d | 7A.10e |
| | 4 | | 5 | | 6 | | 7 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [3]
**and indicate the Part II, Section 6.2/7A page number in this box:** [2] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Chromium Compounds (except for chromite ore m |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 4** Off-Site EPA Identification Number (RCRA ID No.) MDD980555189

Off-Site location Name: Clean Harbors of Baltimore

Off-site Address: 1910 Russell St.

| City | Baltimore | State | MD | County | Baltimore | Zip | 21230 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 224 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.11a | 7A.11b | 1 | | 2 | | 3 | | 4 | 7A.11c | 7A.11d | 7A.11e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.12a | 7A.12b | 1 | | 2 | | 3 | | 4 | 7A.12c | 7A.12d | 7A.12e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.13a | 7A.13b | 1 | | 2 | | 3 | | 4 | 7A.13c | 7A.13d | 7A.13e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.14a | 7A.14b | 1 | | 2 | | 3 | | 4 | 7A.14c | 7A.14d | 7A.14e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.15a | 7A.15b | 1 | | 2 | | 3 | | 4 | 7A.15c | 7A.15d | 7A.15e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [3]
**and indicate the Part II, Section 6.2/7A page number in this box:** [3] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Chromium Compounds (except for chromite ore mi |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

X — Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

| 1 | 2 | 3 |
|---|---|---|
| | | |

## SECTION 7C. ON-SITE RECYCLING PROCESSES

X — Not Applicable (NA) - Check here if no on-site recyling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| | | | | |
| **6** | **7** | **8** | **9** | **10** |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | NA | 7 | NA | NA |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | NA | 5654 | NA | NA |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | NA | NA | NA | NA |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | 80 | | |
| 8.9 | Production ratio or activity index | | 0.62 | | |
| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | | |

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | Yes | No |
|---|---|---|---|
| 8.11 | Is additional information on source reduction, recycling, or pollution control activities included with this report ? (Check one Box) | | X |

EPA Form 9350-1 (Rev. 2/2004 ) - Previous editions are obsolete.

*For Dioxin or Dioxin-like compounds, report in grams/year

EPA

United States Environmental Protection Agency

# FORM R

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number: 11801PRKNL220MI

Toxic Chemical, Category or Generic Name: Nickel

**WHERE TO SEND COMPLETED FORMS:** 1. TRI Data Processing Center, P.O.Box 1513, Lanham, MD 20703-1513 2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR 2004

### SECTION 2. TRADE SECRET INFORMATION

2.1 Are you claiming the toxic chemical identified on page 2 trade secret?
[ ] Yes (Answer question 2.2; Attach substantiation forms) [X] NO (Do not answer 2.2; Go to Section 3)

2.2 Is this copy [ ] Sanitized [ ] Unsanitized (Answer only if "YES" in 2.1)

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| W. GREGORY WUEST MGR, GLOBAL QUAL, ENVIRONMENT, SAFETY, HEALTH | | 06/30/2005 |

### SECTION 4. FACILITY IDENTIFICATION

4.1

| Facility or Establishment Name | TRI Facility ID Number: 11801PRKNL220MI |
|---|---|
| SULZER METCO (US), INC. | Facility or Establishment Name or Mailing Address (if different from street address): SULZER METCO (US), INC. |
| Street: 220 MILLER PLACE | Mailing Address: 1101 PROSPECT AVENUE |
| City/County/State/Zip Code: HICKSVILLE NASSAU NY 11801 | City/State/Zip Code: WESTBURY NY 11590 — Country (Non-US): |

4.2 This report contains information for: (Important: check a or b; check c or d if applicable) a. [X] An entire facility b. [ ] Part of a facility c. [ ] A Federal facility d. [ ] GOCO

| | | | |
|---|---|---|---|
| 4.3 | Technical Contact Name | PETER DIPIETRANTONIO | Telephone Number (include area code): (516) 338-2337 |
| | Email Address | PETER.DIPIETRANTONIO@SULZER.COM | |
| 4.4 | Public Contact Name | W. GREGORY WUEST | Telephone Number (include area code): (516) 338-2217 |

| 4.5 SIC Code (s) (4 digits) | Primary | b. | c. | d. | e. | f. |
|---|---|---|---|---|---|---|
| | a. 3499 | | | | | |

| 4.6 | Latitude | Degrees | Minutes | Seconds | Longitude | Degrees | Minutes | Seconds |
|---|---|---|---|---|---|---|---|---|
| | | 40 | 47 | 10 | | 073 | 31 | 00 |

| 4.7 Dun & Bradstreet Number(s) (9 digits) | 4.8 EPA Identification Number (RCRA I.D. No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. 152084398 | a. NYD981558570 | a. NA | a. NA |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| 5.1 | Name of Parent Company | NA [ ] | SULZER US INDUSTRIES HOLDING INC. |
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | 001826957 |

# EPA FORM R
# PART II. CHEMICAL - SPECIFIC INFORMATION

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category or Generic Name |
| Nickel |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440-02-0 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | Nickel |
| 1.3 | Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.) |
| | NA |

**1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.**
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA | | | | | | | | | | | | | | | | |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |
| | NA |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | | 3.2 Process the toxic chemical: | | 3.3 Otherwise use the toxic chemical: | |
|---|---|---|---|---|---|
| a. | Produce b. Import | | | | |
| | If produce or import: | a. | As a reactant | a. | As a chemical processing aid |
| c. | For on-site use/processing | b. X | As a formulation component | b. | As a manufacturing aid |
| d. | For sale/distribution | c. | As an article component | c. | Ancillary or other use |
| e. | As a byproduct | d. X | Repackaging | | |
| f. | As an impurity | e. | As an impurity | | |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 (Enter two-digit code from instruction package.) | |

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA | 0 | O | |
| 5.2 | Stack or point air emissions | NA | 17 | E | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |

**If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box and indicate the Part II, Section 5.3 page number in this box.** (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

### SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release ( pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I Wells | X | | |
| 5.4.2 | Underground Injection onsite to Class II-V Wells | X | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA Subtitle C landfills | X | | |
| 5.5.1.B | Other landfills | X | | |
| 5.5.2 | Land treatment/application farming | X | | |
| 5.5.3A | RCRA Subtitle C Surface Impoundments | X | | |
| 5.5.3B | Other surface Impoundments | X | | |
| 5.5.4 | Other disposal | X | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

#### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.1.B. 1 | POTW Name | NA | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |
| 6.1.B. | POTW Name | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |

**If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box** [ ] **and indicate the Part II, Section 6.1 page number in this box** [ ] **(example: 1,2,3, etc.)**

#### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| 6.2. 1 Off-Site EPA Identification Number (RCRA ID No.) | NA | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Off-Site Location Name | ARROW SCRAP METAL | | | | | | | |
| Off-site Address | 24 GAYMOR LANE | | | | | | | |
| City | COMMACK | State | NY | County | SUFFOLK | Zip | 11725 | Country (Non-US) |

Is location under control of reporting facility or parent company? Yes [X] No

* For Dioxin or Dioxin-like compounds, report in grams/year

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R
## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 100 | 1. O | 1. M24 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 2** Off-Site EPA Identification Number (RCRA ID No.) CTD000604488

Off-Site location Name: Clean Harbors of Connecticut

Off-site Address: 51 Broderick Road

| City | State | County | Zip | Country (Non-US) |
|---|---|---|---|---|
| Bristol | CT | Hartford | 06010 | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 400 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d % | 7A.1e Yes No |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d % | 7A.2e Yes No |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d % | 7A.3e Yes No |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d % | 7A.4e Yes No |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d % | 7A.5e Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [4]
**and indicate the Part II, Section 6.2/7A page number in this box:** [1] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

| 6.2. 3 Off-Site EPA Identification Number (RCRA ID No.) | OHD000816629 |
|---|---|
| Off-Site location Name | Clean Harbors Spring Grove Resource Recovery |
| Off-site Address | 4879 Spring Grove Avenue |

| City | Cincinnati | State | OH | County | Hamilton | Zip | 45232 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 11650 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.6a | 7A.6b | 1 | | 2 | | 3 | | 4 | 7A.6c | 7A.6d | 7A.6e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.7a | 7A.7b | 1 | | 2 | | 3 | | 4 | 7A.7c | 7A.7d | 7A.7e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.8a | 7A.8b | 1 | | 2 | | 3 | | 4 | 7A.8c | 7A.8d | 7A.8e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.9a | 7A.9b | 1 | | 2 | | 3 | | 4 | 7A.9c | 7A.9d | 7A.9e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.10a | 7A.10b | 1 | | 2 | | 3 | | 4 | 7A.10c | 7A.10d | 7A.10e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [4]
**and Indicate the Part II, Section 6.2/7A page number in this box:** [2] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 4** Off-Site EPA Identification Number (RCRA ID No.) NYD505092870

| Off-Site location Name | RGM | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Off-site Address | 972 Nichols Road | | | | | | | | |
| City | Deer Park | State | NY | County | Suffolk | Zip | 11729 | Country (Non-US) | |

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 9288 | 1. M | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|
| 7A.11a | 7A.11b | 1 | | 2 | | | | 7A.11c | 7A.11d | 7A.11e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.12a | 7A.12b | 1 | | 2 | | | | 7A.12c | 7A.12d | 7A.12e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.13a | 7A.13b | 1 | | 2 | | | | 7A.13c | 7A.13d | 7A.13e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.14a | 7A.14b | 1 | | 2 | | | | 7A.14c | 7A.14d | 7A.14e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.15a | 7A.15b | 1 | | 2 | | | | 7A.15c | 7A.15d | 7A.15e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [4]
**and indicate the Part II, Section 6.2/7A page number in this box:** [3] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

| 6.2. 5 Off-Site EPA Identification Number (RCRA ID No.) | MDD980555189 |
|---|---|
| Off-Site location Name | Clean Harbors of Baltimore |
| Off-site Address | 1910 Russell St. |

| City | Baltimore | State | MD | County | Baltimore | Zip | 21230 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 496 | 1. C | 1. M94 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|
| 7A.16a | 7A.16b | 1 | | 2 | | | | 7A.16c | 7A.16d | 7A.16e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.17a | 7A.17b | 1 | | 2 | | | | 7A.17c | 7A.17d | 7A.17e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.18a | 7A.18b | 1 | | 2 | | | | 7A.18c | 7A.18d | 7A.18e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.19a | 7A.19b | 1 | | 2 | | | | 7A.19c | 7A.19d | 7A.19e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |
| 7A.20a | 7A.20b | 1 | | 2 | | | | 7A.20c | 7A.20d | 7A.20e |
| | 3 | | 4 | | 5 | | | | % | Yes No |
| | 6 | | 7 | | 8 | | | | | |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [4]
**and indicate the Part II, Section 6.2/7A page number in this box:** [4] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Nickel |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

| | | |
|---|---|---|
| X | Not Applicable (NA) - | Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category. |

Energy Recovery Methods [enter 3-character code(s)]

| 1 | 2 | 3 |
|---|---|---|
| | | |

## SECTION 7C. ON-SITE RECYCLING PROCESSES

| | | |
|---|---|---|
| X | Not Applicable (NA) - | Check here if no on-site recyling is applied to any waste stream containing the toxic chemical or chemical category. |

Recycling Methods [enter 3-character code(s)]

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| | | | | |
| **6** | **7** | **8** | **9** | **10** |
| | | | | |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | 45 | 17 | NA | NA |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | 4549 | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | NA | 12146 | NA | NA |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | 10000 | 100 | NA | NA |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | | 9288 | |
| 8.9 | Production ratio or activity index | | | 0.36 | |

| | | | | |
|---|---|---|---|---|
| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | |
| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
| 8.10.1 | NA | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | | |
|---|---|---|---|
| 8.11 | Is additional information on source reduction, recycling, or pollution control activities included with this report ? (Check one Box) | Yes | No |
| | | | X |



*For Dioxin or Dioxin-like compounds, report in grams/year

2004 Jam R Westbury + Hicksville Production totals

| Material Description | Quantity | % Co | Co (lb) | % Ni | Ni (lb) | % Al | Al (lb) | % Cr | Cr (lb) | % CrC | CrC (lb) | % Cr2O3 | Cr2O3 (lb) | % Cu | Cu (lb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| METCO 16C POWDER 5# | 655 | 0.5% | 3 | 69.0% | 452 | 0.0% | 0 | 16.0% | 105 | 0.0% | 0 | 0.0% | 0 | 2.0% | 13 |
| METCO 41C POWDER 5# | 2,465.00 | 0.0% | 0 | 12.0% | 296 | 0.0% | 0 | 17.0% | 419 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 42C POWDER 5# | 9,865.00 | 0.0% | 0 | 2.0% | 197 | 0.0% | 0 | 16.0% | 1,578 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 32C POWDER 5# | 4,840.00 | 10.0% | 484 | 14.0% | 678 | 0.0% | 0 | 3.5% | 169 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 18C POWDER 5# | 815 | 40.0% | 326 | 27.0% | 220 | 0.0% | 0 | 18.0% | 147 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 43C-NS POWDER 5# | 6,695.00 | 0.0% | 0 | 78.0% | 5,222 | 0.0% | 0 | 19.0% | 1,272 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 201NS POWDER 12.5# | 1,640.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 55 POWDER 5# | 7,595.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 34FP POWDER 5# | 1,880.00 | 6.0% | 113 | 36.0% | 677 | 0.0% | 0 | 8.5% | 160 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 63NS POWDER 5# | 6,320.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 201B-NS POWDER 5# | 2,025.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 439NS POWDER 5# | 3,030.00 | 12.5% | 379 | 27.0% | 818 | 2.0% | 61 | 48.0% | 1,454 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 101NS POWDER 5# | 18,800.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 105NS POWDER 5# | 14,080.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 201B-NS POWDER 12.5# | 200 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 81NS POWDER 5# | 16,760.00 | 0.0% | 0 | 20.0% | 3,352 | 0.0% | 0 | 4.0% | 670 | 76.0% | 12,738 | 0.0% | 0 | 0.0% | 0 |
| METCO 44 POWDER 5# | 1,475.00 | 0.0% | 0 | 74.0% | 1,092 | 0.0% | 0 | 16.0% | 236 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 56F-NS POWDER 5# | 16,485.00 | 0.0% | 0 | 99.5% | 16,403 | 0.0% | 0 | | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 43F-NS POWDER 5# | 8,810.00 | 0.0% | 0 | 78.0% | 6,872 | 0.0% | 0 | 19.0% | 1,674 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 430NS POWDER 5# | 2,175.00 | 12.5% | 272 | 27.0% | 587 | 2.0% | 44 | 0.0% | 0 | 55.0% | 1,196 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 100C POWDER 5# | 25 | 0.0% | 0 | 70.0% | 18 | 0.1% | 0 | 19.0% | 5 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 71NS POWDER 5# | 8,400.00 | 11.5% | 966 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| Amdry 103 powder 5# | 105 | 0.0% | 0 | 70.0% | 74 | 0.1% | 0 | 19.0% | 20 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 210 POWDER 5# | 2,065.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 451 POWDER 5# | 985 | 0.0% | 0 | 81.0% | 798 | 1.0% | 10 | 9.0% | 89 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 102 POWDER 5# | 9,275.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 45C-NS POWDER 5# | 8,725.00 | 55.0% | 4,799 | 10.0% | 873 | 0.0% | 0 | 24.0% | 2,094 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 45VF-NS POWDER 5# | 8,535.00 | 55.0% | 4,694 | 10.0% | 854 | 0.0% | 0 | 24.0% | 2,048 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 71VF-NS POWDER 5# | 6,920.00 | 11.5% | 796 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 81VF-NS POWDER 5# | 52,120.00 | 0.0% | 0 | 20.0% | 10,424 | 0.0% | 0 | 0.0% | 0 | 76.0% | 39,611 | 0.0% | 0 | 0.0% | 0 |
| METCO 34F POWDER 5# | 5,965.00 | 6.0% | 358 | 36.0% | 2,147 | 0.0% | 0 | 8.5% | 507 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 101B-NS POWDER 12.5# | 32,100.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 72F-NS POWDER 5# | 14,985.00 | 12.0% | 1,798 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 439NS-2 POWDER 5# | 4,225.00 | 12.5% | 528 | 27.0% | 1,141 | 2.0% | 85 | 48.0% | 2,028 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 51F-NS POWDER 5# | 15,695.00 | 0.0% | 0 | 0.0% | 0 | 10.0% | 1,570 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 89.0% | 13,969 |
| METCO 58NS POWDER 5# | 10 | 0.0% | 0 | 38.0% | 4 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 62.0% | 6 |
| METCO 52C-NS POWDER 5# | 19,015.00 | 0.0% | 0 | 0.0% | 0 | 88.0% | 16,733 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 131VF POWDER 5# | 630 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 51F-NS POWDER 25# | 775 | 0.0% | 0 | 0.0% | 0 | 10.0% | 78 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 89.0% | 690 |
| METCO 601NS POWDER 5# | 138,860.00 | 0.0% | 0 | 0.0% | 0 | 53.0% | 73,596 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 410NS POWDER 5# | 6,490.00 | 0.0% | 0 | 6.0% | 389 | 24.0% | 1,558 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 73F-NS-1 POWDER 5# | 20,780.00 | 17.0% | 3,533 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 36C POWDER 5# | 15,155.00 | 0.0% | 0 | 45.0% | 6,820 | 0.0% | 0 | 12.0% | 1,819 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 106 POWDER 5# | 4,730.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 97.0% | 4,588 | 0.0% | 0 |
| METCO 106F POWDER 5# | 3,615.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 97.0% | 3,507 | 0.0% | 0 |
| METCO 73SF-NS POWDER 5# | 765 | 17.0% | 130 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |

| Material Description | Quantity | % Co | Co (lb) | % Ni | Ni (lb) | % Al | Al (lb) | % Cr | Cr (lb) | % CrC | CrC (lb) | % Cr2O3 | Cr2O3 (lb) | % Cu | Cu (lb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| METCO 102 POWDER 12.5# | 13,050.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 101SF POWDER 5# | 6,250.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 51NS POWDER 5# | 2,660.00 | 0.0% | 0 | 0.0% | 0 | 10.0% | 266 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 89.0% | 2,367 |
| METCO 605NS POWDER 5# | 780 | 0.0% | 0 | 0.0% | 0 | 9.0% | 70 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 80.0% | 624 |
| METCO 64 POWDER 5# | 295 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 202NS POWDER 5# | 9,655.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 56C-NS POWDER 5# | 875 | 0.0% | 0 | 99.5% | 871 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 54NS POWDER 5# | 6,525.00 | 0.0% | 0 | 0.0% | 0 | 99.0% | 6,460 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 71VF-NS-1 POWDER 5# | 1,770.00 | 11.5% | 204 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 54NS-1 POWDER 5# | 14,485.00 | 0.0% | 0 | 0.0% | 0 | 99.0% | 14,340 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 43VF-NS POWDER 5# | 2,175.00 | 0.0% | 0 | 78.0% | 1,697 | 0.0% | 0 | 19.0% | 413 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 105SFP POWDER 5# | 14,195.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 66F-NS POWDER 5# | 3,280.00 | 59.5% | 1,952 | 1.0% | 33 | 0.0% | 0 | 8.5% | 279 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 31C-NS POWDER 5# | 20,690.00 | 4.0% | 828 | 55.0% | 11,380 | 0.0% | 0 | 4.5% | 931 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 73F-NS-2 POWDER 5# | 5,150.00 | 17.0% | 876 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 68F-NS-1 POWDER 5# | 10,765.00 | 49.0% | 5,275 | 1.0% | 108 | 0.0% | 0 | 17.5% | 1,884 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 600NS POWDER 5# | 665 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 1123 POWDER 5# | 325 | 9.0% | 29 | 18.0% | 59 | 0.0% | 0 | 4.0% | 13 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 82VF-NS POWDER 5# | 1,655.00 | 0.0% | 0 | 12.0% | 199 | 0.0% | 0 | 0.0% | 0 | 88.0% | 1,456 | 0.0% | 0 | 0.0% | 0 |
| METCO 210NS-1 POWDER 5# | 12,775.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 480NS POWDER 5# | 27,505.00 | 0.0% | 0 | 95.5% | 26,267 | 4.5% | 1,238 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 204NS POWDER 5# | 72,555.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 210NS-1 POWDER 12.5# | 7,237.50 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 143 POWDER 5# | 3,270.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 303NS-1 POWDER 5# | 165 | 0.0% | 0 | 27.0% | 45 | 0.0% | 0 | 7.0% | 12 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 202NS POWDER 12.5# | 3,700.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 70C-NS POWDER 12.5# | 3,587.50 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 100.0% | 3,588 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 204B-NS POWDER 5# | 38,200.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 204NS POWDER 12.5# | 93,275.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 443NS POWDER 25# | 1,125.00 | 0.0% | 0 | 73.0% | 821 | 5.0% | 56 | 18.0% | 203 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 205NS POWDER 12.5# | 1,750.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 210NS-1G POWDER 12.5# | 1,412.50 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 105NS POWDER 12.5# | 1,087.50 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 441NS-1 POWDER 5# | 245 | 0.0% | 0 | 26.0% | 64 | 2.0% | 5 | 6.0% | 15 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 1003 POWDER 5# | 15,310.00 | 0.0% | 0 | 12.0% | 1,837 | 0.0% | 0 | 17.0% | 2,603 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 1004 POWDER 5# | 740 | 0.0% | 0 | 0.0% | 0 | 10.0% | 74 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 89.0% | 659 |
| DIAMALLOY 1005 POWDER 5# | 7,260.00 | 0.5% | 36 | 63.0% | 4,574 | 0.0% | 0 | 21.5% | 1,561 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 1006 POWDER 5# | 3,015.00 | 1.0% | 30 | 53.0% | 1,598 | 0.0% | 0 | 19.0% | 573 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 1007 POWDER 5# | 4,135.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 100.0% | 4,135 |
| DIAMALLOY 2001 POWDER 5# | 13,365.00 | 1.0% | 134 | 70.0% | 9,356 | 0.0% | 0 | 17.0% | 2,272 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 2002 POWDER 5# | 1,165.00 | 6.0% | 70 | 36.0% | 419 | 0.0% | 0 | 8.5% | 99 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 2003 POWDER 5# | 595 | 11.5% | 68 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 2004 POWDER 5# | 13,465.00 | 12.0% | 1,616 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 2006 POWDER 5# | 850 | 17.0% | 145 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 3001 POWDER 5# | 6,155.00 | 49.0% | 3,016 | 1.0% | 62 | 0.0% | 0 | 17.5% | 1,077 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 3004 POWDER 5# | 10,535.00 | 0.0% | 0 | 20.0% | 2,107 | 0.0% | 0 | 0.0% | 0 | 80.0% | 8,428 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 3005 POWDER 5# | 185 | 0.0% | 0 | 10.0% | 19 | 0.0% | 0 | 0.0% | 0 | 90.0% | 167 | 0.0% | 0 | 0.0% | 0 |

| Material Description | Quantity | % Co | Co (lb) | % Ni | Ni (lb) | % Al | Al (lb) | % Cr | Cr (lb) | % CrC | CrC (lb) | % Cr2O3 | Cr2O3 (lb) | % Cu | Cu (lb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIAMALLOY 4006 POWDER 5# | 2,960.00 | 0.0% | 0 | 55.0% | 1,628 | 0.0% | 0 | 20.5% | 607 | 0.0% | 0 | 0.0% | 0 | 4.0% | 118 |
| METCO 76F-NS POWDER 5# | 1,845.00 | 21.0% | 387 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 204NS-G POWDER 12.5# | 178,862.50 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 4008NS POWDER 5# | 1,675.00 | 0.0% | 0 | 95.5% | 1,600 | 4.5% | 75 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 1008 POWDER 5# | 775 | 0.0% | 0 | 4.0% | 31 | 0.0% | 0 | 18.0% | 140 | 0.0% | 0 | 0.0% | 0 | 2.0% | 16 |
| DIAMALLOY 3002NS POWDER 5# | 985 | 59.5% | 586 | 1.0% | 10 | 0.0% | 0 | 8.5% | 84 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 2005NS POWDER 5# | 21,610.00 | 17.0% | 3,674 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 301 POWDER (3010) 5# | 1,040.00 | 11.0% | 114 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 313X POWDER 5# | 3,705.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 333 POWDER (3330) 5# | 980 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 962 POWDER (9620) 5# | 4,340.00 | 0.0% | 0 | 67.0% | 2,908 | 10.0% | 434 | 22.0% | 955 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 9830 POWDER 5# | 1,470.00 | 17.0% | 250 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 9831 POWDER 5# | 7,990.00 | 17.0% | 1,358 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 993 POWDER (9930) 50# | 7,450.00 | 0.0% | 0 | 1.0% | 75 | 35.0% | 2,608 | 1.0% | 75 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 995C POWDER 5# | 20 | 35.0% | 7 | 30.0% | 6 | 8.0% | 2 | 26.0% | 5 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 2010 POWDER 5# | 17,980.00 | 0.0% | 0 | 0.0% | 0 | 53.0% | 9,529 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 5260 POWDER 5# | 485 | 20.0% | 97 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 5670 POWDER 5# | 3,790.00 | 20.0% | 758 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 5843 POWDER 10# | 15,255.00 | 10.0% | 1,526 | 0.0% | 0 | 0.0% | 0 | 4.0% | 610 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 6420 POWDER 10# | 15,391.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY CHROME POWDER 5# | 5,245.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 100.0% | 5,245 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 770 POWDER 5# | 325 | 0.1% | 0 | 80.0% | 260 | 0.0% | 0 | 20.0% | 65 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 770 POWDER (7701) 5# | 615 | 0.1% | 1 | 80.0% | 492 | 0.0% | 0 | 20.0% | 123 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 780 POWDER 5# | 500 | 0.1% | 1 | 92.0% | 460 | 0.0% | 0 | 15.0% | 75 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| Amdry 790.0 powder 5# | 400 | 0.1% | 0 | 92.0% | 368 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 204NS-1 POWDER 12.5# | 79,375.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| SULZER METCO 5803 POWDER 5( | 9,625.00 | 8.0% | 770 | 11.5% | 1,107 | 0.0% | 0 | 11.0% | 1,059 | 0.0% | 0 | 0.0% | 0 | 1.0% | 96 |
| SULZER METCO 5810 POWDER 5( | 2,855.00 | 12.0% | 343 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 70F-NS POWDER 10# | 40 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 100.0% | 40 | 0.0% | 0 | 0.0% | 0 |
| METCO 204C-NS POWDER 12.5# | 36,237.50 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| SULZER METCO 2043 POWDER 5( | 3,990.00 | 26.0% | 1,037 | 25.0% | 998 | 6.0% | 239 | 16.5% | 658 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| SULZER METCO 5812 POWDER 5( | 590 | 12.0% | 71 | 0.0% | 0 | 0.0% | 0 | | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| SULZER METCO 5847 POWDER 5( | 9,460.00 | 10.0% | 946 | 0.0% | 0 | 0.0% | 0 | 4.0% | 378 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| SULZER METCO 5241 POWDER 1( | 12,790.00 | 0.0% | 0 | 31.0% | 3,965 | 0.0% | 0 | 60.0% | 7,674 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 4700 POWDER 10# | 1,050.00 | 38.0% | 399 | 32.0% | 336 | 8.0% | 84 | 21.0% | 221 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| SULZER METCO 2042 POWDER 5( | 3,740.00 | 26.0% | 972 | 26.0% | 972 | 6.0% | 224 | 16.5% | 617 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY BRB POWDER 5# | 5 | 9.5% | 0 | 68.5% | 3 | 6.0% | 0 | 13.5% | 1 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY MM509 POWDER 5# | 345 | 54.0% | 186 | 10.0% | 35 | 0.0% | 0 | 23.0% | 79 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| SP 86/70NS POWDER NIC ALUM 5 | 390 | 0.1% | 0 | 84.0% | 328 | 16.0% | 62 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| SPM 4-2231 POWDER 10# | 8,350.00 | 2.5% | 209 | 67.0% | 5,595 | 5.5% | 459 | 17.5% | 1,461 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| SPM 6-2255 POWDER 5# | 1,095.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| SPM 6-2309 AE7443 SPINEL POWI | 500 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY ALUM SIL / XPT 268/SPM2 | 195 | 21.0% | 41 | 38.0% | 74 | 11.5% | 22 | 23.0% | 45 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 8670 / PWA 36117-2 / 5# | 5 | 10.0% | 1 | 14.0% | 1 | 5.5% | 0 | 8.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.1% | 0 |
| SULZER METCO 5546NS (PER XP | 940 | 0.0% | 0 | 17.0% | 160 | 2.5% | 24 | 70.5% | 663 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 443NS SPECIAL / XPT 585 | 10,190.00 | 0.0% | 0 | 70.0% | 7,133 | 5.0% | 510 | 18.5% | 1,885 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| SXH-70 / 10 LBS | 17,700.00 | 10.0% | 1,770 | 0.0% | 0 | 0.0% | 0 | 4.0% | 708 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |

| Material Description | Quantity | % Co | Co (lb) | % Ni | Ni (lb) | % Al | Al (lb) | % Cr | Cr (lb) | % CrC | CrC (lb) | % Cr2O3 | Cr2O3 (lb) | % Cu | Cu (lb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SULZER METCO 7372 POWDER # | 6,765.00 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | 0.0% | 0 |
| SPM5-2657 POWDER 5# | 4,160.00 | 12.0% | 499 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 5847-1 5# | 1,565.00 | 10.0% | 157 | 0.0% | 0 | 0.0% | 0 | 4.0% | 63 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 204F 12.5# | 412.5 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| UCP Riken -SPM-5-2702 10# | 50 | 0.0% | 0 | 40.0% | 20 | 0.0% | 0 | 53.0% | 27 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| Combined Total: | **1,668,989** | | 52,874 | | 165,697 | | 132,784 | | 91,774 | | 63,636 | | 10,853 | | 23,906 |
| **50% in Hicksville, 2004** | **834,495** | | **26,437** | | **82,849** | | **66,392** | | **45,887** | | **31,818** | | **5,426** | | **11,953** |
| **Hicksville Usage 2003** | **1,602,272** | | **28,656** | | **227,443** | | **113,928** | | **47,218** | | **47,218** | | **12,474** | | **N/a** |
| **2004/2003** | | | | | | | | | | | | | | | |
| **Hicksville Ratio:** | | | **0.92** ✓ | | **0.36** ✓ | | **0.58** ✓ | | **0.97** ✓ | | 0.67 | | 0.44 | | |
| | | | | | | | | | | Cr Cpds 2004= | | 37,244 | | | |
| | | | | | | | | | | Cr Cpds 2003= | | 59,692 | | | |
| | | | | | | | | | | Ratio= | | **0.62** ✓ | | | |

Notes: CrC is used as chromium compound in 2004 Report. Assume ~ 50% was CrC vs. Cr in 2003.

| **Cladding Products:** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| METCO 320NS POWDER 5# | 22,690.00 | 0.0% | 0 | 0.0% | 0 | 62.0% | 14,068 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 310NS POWDER 5# | 95 | 0.0% | 0 | 0.0% | 0 | 61.0% | 58 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 610NS POWDER 12.5# | 3,725.00 | 0.0% | 0 | 0.0% | 0 | 7.5% | 279 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 72.0% | 2,682 |
| METCO 308NS POWDER 25# | 9,425.00 | 5.0% | 471 | 84.5% | 7,964 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 308NS-3 POWDER 5# | 9,315.00 | 0.5% | 47 | 84.5% | 7,871 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 308NS-1 POWDER 5# | 1,805.00 | 0.5% | 9 | 84.5% | 1,525 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 309NS-3 POWDER 5# | 1,485.00 | 0.5% | 7 | 79.5% | 1,181 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 307NS POWDER 5# | 17,655.00 | 0.5% | 88 | 74.5% | 13,153 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 307NS-3 POWDER 5# | 10,310.00 | 0.5% | 52 | 74.5% | 7,681 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 307NS-2 POWDER 5# | 14,220.00 | 0.5% | 71 | 74.5% | 10,594 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 312NS POWDER 12.5# | 9,312.50 | 0.0% | 0 | 71.0% | 6,612 | 4.0% | 373 | 4.0% | 373 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 314NS POWDER 12.5# | 27,312.50 | 0.0% | 0 | 71.0% | 19,392 | 4.0% | 1,093 | 4.0% | 1,093 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 301NS POWDER 5# | 7,830.00 | 0.0% | 0 | 65.0% | 5,090 | 3.5% | 274 | 14.0% | 1,096 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 301C-NS POWDER 5# | 3,885.00 | 0.0% | 0 | 65.0% | 2,525 | 3.5% | 136 | 14.0% | 544 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 445 POWDER 5# | 4,070.00 | 0.0% | 0 | 0.0% | 0 | 10.0% | 407 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 89.0% | 3,622 |
| METCO 350NS POWDER 25# | 18,499.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 959 POWDER 5# | 3,680.00 | 0.0% | 0 | 38.0% | 1,398 | 7.0% | 258 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 453 POWDER 5# | 11,115.00 | 0.0% | 0 | 31.0% | 3,446 | 6.0% | 667 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 452 POWDER 5# | 13,365.00 | 0.0% | 0 | 38.0% | 5,079 | 7.0% | 936 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 450NS POWDER 5# | 167,805.00 | 0.0% | 0 | 94.0% | 157,737 | 5.0% | 8,390 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 450NS POWDER 25# | 3,575.00 | 0.0% | 0 | 94.0% | 3,361 | 5.0% | 179 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 956 POWDER (9560) 5# | 34,610.00 | 0.0% | 0 | 93.5% | 32,360 | 5.0% | 1,731 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 404NS POWDER 5# | 13,185.00 | 0.0% | 0 | 80.0% | 10,548 | 20.0% | 2,637 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 444 POWDER 5# | 13,570.00 | 0.0% | 0 | 72.0% | 9,770 | 7.0% | 950 | 9.0% | 1,221 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| AMDRY 960 POWDER (9600) 5# | 12,365.00 | 0.0% | 0 | 73.0% | 9,026 | 5.0% | 618 | 18.0% | 2,226 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 443NS POWDER 5# | 47,550.00 | 0.0% | 0 | 73.0% | 34,712 | 5.0% | 2,378 | 18.0% | 8,559 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 461NS POWDER 5# | 1,520.00 | 2.5% | 38 | 67.0% | 1,018 | 5.5% | 84 | 17.5% | 266 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 442 POWDER 5# | 1,910.00 | 0.0% | 0 | 68.0% | 1,299 | 7.0% | 134 | 8.5% | 162 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |

| Material Description | Quantity | % Co | Co (lb) | % Ni | Ni (lb) | % Al | Al (lb) | % Cr | Cr (lb) | % CrC | CrC (lb) | % Cr2O3 | Cr2O3 (lb) | % Cu | Cu (lb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| METCO 447NS POWDER 5# | 29,470.00 | 0.0% | 0 | 86.0% | 25,344 | 6.0% | 1,768 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| DIAMALLOY 3007 POWDER 5# | 9,255.00 | 0.0% | 0 | 10.0% | 926 | 0.0% | 0 | 0.0% | 0 | 90.0% | 8,330 | 0.0% | 0 | 0.0% | 0 |
| METCO 130 POWDER 5# | 9,690.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 130 POWDER 12.5# | 3,600.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 130SF POWDER 5# | 3,875.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 |
| METCO 136F POWDER 5# | 6,500.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 91.0% | 5,915 | 0.0% | 0 |
| METCO 136F POWDER 12.5# | 1,612.50 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 91.0% | 1,467 | 0.0% | 0 |
| METCO 136CP / 5 LBS | 3,150.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 91.0% | 2,867 | 0.0% | 0 |
| | **553,037** | | 783 | | 379,611 | | 37,415 | | 15,539 | | 8,330 | | 10,249 | | 6,304 |
| Westbury Usage 2004, Materials: | 1,387,531 | | 27,220 | | 462,460 | | 103,807 | | 61,427 | | 40,147 | | 15,675 | | 18,257 |
| Westbury Usage 2004, Equipment: | | | 0 | | 177 | | N/a | | 903 | | N/a | | N/a | | 263,359 |
| **Total Westbury Usage, 2004:** | | | **27,220** | | **462,637** | | **103,807** | | **62,330** | | **40,147** | | **15,675** | | **281,616** |
| **Total Westbury Usage, 2003:** | | | | | | | | | | | | | | | **69,300** |
| **2004/2003** | | | | | | | | | | | | | | | |
| **Westbury Ratio:** | | | NA | | NA | | NA | | NA | | NA | | NA | | 4.06 |

Cr cpds = 55,822 lb.

Notes: Cladding production only took place in Westbury. Other production was assumed to be divided evenly between facilities since the Hicksville closure began in July 2004. Use of brass increased significantly and calculations were verified by Bill W.

Jan. - Dec. 2004

Prospect Avenue

| | |
|---|---|
| 8E85 RING CONTROL | 9 PC |
| 8E86 SPIDER ASSY | 10 PC |
| 8E86 SPIDER ASSY | 10 PC |
| 9MP14 MULTITUBE SOCKET PACKAGE | 8 PC |
| 9MP17 PILOTED RELIEF VALVE PACKAGE | 1 PC |
| 9MP70 LOAD CELL | 1 PC |
| 9MP70 LOAD CELL | 1 PC |
| ATC608 MULTITUBE PLUG PACKAGE (9MP) | 2 PC |
| CU195 O-RING .489 X .070 VITON (QTY 6) | 424 PAC |
| DJ2603 AIR CAP EXTENDED ASSEMBLY | 20 PC |
| DJ2606 NOZZLE NUT PACKAGE | 3 PC |
| DJCE50786 GAS LEAK DETECTOR HYDROGEN PKG | 1 PC |
| DJP436 PLUG DRAIN 1 | 1 PC |
| K115 INSERTING PIN | 3 PC |
| K49-15 GUIDE REAR WIRE 15 GA | 15 PC |
| K88 BEARING BALL .3937IDX1.1811ODX.3543W | 10 PC |
| MVG18-3 INSERT"V3" 1.598 L X .850 OD | 16 PC |
| N8-15 METERING VALVE ASSEMBLY #15 | 10 PC |
| P119 POWDERLUBE | 51 PC |
| P8581 SEAL,POLYPAK 2.50001D X .187CL | 4 PC |
| PPG50909 RETAINER UPPER DRIVE ROLLER | 8 PC |
| PPG51385 GUIDE (WIRE TUBE) | 44 PC |
| PPG51393 14GA/2.0 MM (UPPER-FLAT) | 2 PC |
| PPG51395 ROLLER 14 GA/2.0mm(UPPER SERR.) | 10 PAC |
| PPG51400 GEAR ASSY W/BUSHING (UPPER) | 16 PC |
| PPG51416 AIR CAP BODY (FINE) | 10 PC |
| PPG51417 ARC SHIELD | 1 PC |
| PPG51418 CENTERING POST | 9 PC |
| PPG51445 POST ELECTRODE(CONTACT TUBE) | 3 PC |
| PPG51496 CONTACT TIP 14GA SOFT (10 QTY) | 55 PAC |
| PPG51498 RETAINER (LOWER DRIVE ROLLER) | 4 PC |
| PPG51523 HARDWARE KIT CONTACT TIP 2.0 MM | 22 PAC |
| Y83 BALL BEARING PACKAGE | 15 PC |
| Y88 BALL BEARING PACKAGE | 15 PC |
| 7MC678 CAPACITOR .047 mFD PACKAGE | 1 PC |
| AR146 PLC RACK W/ POWER SUPPLY PACKAGE | 1 PC |
| C169 RELAY - 4PDT | 1 PC |
| DJ621 HOSE FUEL (RED) 25FT/7.6M | 2 PC |
| 3M391 AIR COOLER ASSEMBLY | 1 PC |
| B0141-160 1/4 STL SAE 1020/1018 C/F | 12 FT |
| B0141-240 3/8 STL SAE 1020/1018 C/F | 12 FT |
| B0141-480 3/4 STL 1020/1018 C/F | 48 FT |
| B0141-640 1 STL SAE 1020/1018 | 12 FT |
| B0144-128 3/16X1 1/4 STL SAE 1020/1018 | 12 FT |
| B0144-130 3/16X1-1/2 STL SAE 1020/1018 | 24 FT |
| B0144-138 3/16X4-1/2 STL 1020/1018 C/F | 24 FT |
| B0144-326 1/2X1 STL SAE 1020/1018 C/F | 84 FT |
| B0171-160 1/4 DRILL ROD DBL-2- | 24 FT |
| B0181-160 1/4 STL SAE 1113/1213/1215 C/F | 60 FT |
| B0181-320 1/2 STL SAE 1113/1213/1215 C/F | 12 FT |
| B0181-640 1 STL SAE 1113/1213/1215 C/F | 72 FT |
| B0183-640 1 STL SAE 1113/1213/1215 C/F | 24 FT |

.376

| | | |
|---|---|---|
| B0191-360 9/16 LEDLOY "A" S | 24 FT | |
| B0191-700 1-3/4 LEDLOY "A" | 24 FT | |
| B0192-560 7/8 LEDLOY "A" ST | 36 FT | |
| B0311-080 1/8 ST.STL TYPE 416 | 42 FT | |
| B0311-240 3/8 ST.STL TYPE 416 .3795 | 84 FT | |
| B0311-320 1/2 ST.STL TYPE 416 | 84 FT | |
| B0311-320 1/2 ST.STL TYPE 416 .6616 | 84 FT | |
| B0311-320 1/2 ST.STL TYPE 416 | 288 FT | |
| B0311-400 5/8 ST.STL TYPE 416 | 48 FT | |
| B0311-400 5/8 ST.STL TYPE 416 1.043 | 50.5 FT | |
| B0311-480 3/4 ST.STL TYPE 416 - 1.502 | 60 FT | |
| B0311-560 7/8 ST.STL TYPE 416 | 60 FT | |
| B0311-660 1-1/4 ST.STL TYPE 41 | 60 FT | |
| B0311-660 1-1/4 ST.STL TYPE 41 | 82 FT | |
| B0311-660 1-1/4 ST.STL TYPE 416 | 93 FT | |
| B0311-660 1-1/4 ST.STL TYPE 416 | 60 FT | |
| B0311-660 1-1/4 ST.STL TYPE 416 | 72 FT | |
| B0312-280 7/16 ST.STL TYPE 416 | 60 FT | |
| B0312-280 7/16 ST.STL TYPE 416 .514 | 96 FT | |
| B0312-280 7/16 ST.STL TYPE 416 | 144 FT | |
| B0312-320 1/2 ST.STL TYPE 416 | 207 FT | |
| B0312-320 1/2 ST.STL TYPE 416 .6616 | 60 FT | |
| B0312-360 9/16 ST.STL TYPE 416 | 12 FT | |
| B0312-400 5/8 ST.STL TYPE 416 1.043 | 12 FT | |
| B0313-722 2X2 ST.STL TYPE 416 | 11 FT | |
| B0314-082 1/8X1/4 ST.STL TYPE .25 | 12 FT | |
| B0314-650 1X2.5 ST.STL TYPE 41 | 13 FT | |
| B0314-650 1X2.5 ST.STL TYPE 416 | 48 FT | |
| B0325-083 1/8X.035 ST.STL TYPE 304 | 216 FT | |
| B0325-165 1/4X.049 ST.STL TYPE - .1052 | 20.5 FT | |
| B0325-167 1/4X.065 ST.STL TYPE .1284 | 160 FT | |
| B0325-205 5/16X.049 ST.STL TYPE 304 | 60 FT | |
| B0341-160 1/4 GRAPH-MO CENTLS GRD TL STL | 60 FT | |
| B0341-240 3/8 GRAPH-MO CENTLS GRD TL STL - | 23 FT | |
| B0341-320 1/2 GRAPH-MO CENTLS GRD TL STL | 144 FT | |
| B0351-240 3/8 GRAPH-MO CENTLS GRD TL STL | 49.5 FT | |
| B0381-320 1/2 ST.STL TYPE 440C - .671 | 48 FT | |
| B0381-360 9/16 ST.STL TYPE 440 | 24 FT | |
| B0381-440 11/16 ST.STL TYPE 44 | 12 FT | |
| B0501-160 1/4 BRS FR CUT 1/2 H | 800 FT | |
| B0501-160 1/4 BRS FR CUT 1/2 HARD .1875 | 72 FT | |
| B0501-240 3/8 BRS FR CUT 1/2 H | 48 FT | |
| B0501-240 3/8 BRS FR CUT 1/2 H .4241 | 800 FT | |
| B0501-320 1/2 BRS FR CUT 1/2 H | 144 FT | |
| B0501-320 1/2 BRS FR CUT 1/2 H .7234 | 8,000.00 FT | |
| B0501-400 5/8 BRS FR CUT 1/2 H 1.13 | 144 FT | |
| B0501-480 3/4 BRS FR CUT 1/2 H | 60 FT | |
| B0501-480 3/4 BRS FR CUT 1/2 H 1.628 | 1,200.00 FT | |
| B0501-560 7/8 BRS FR CUT 1/2 H | 72 FT | |
| B0501-560 7/8 BRS FR CUT 1/2 H 2.215 | 900 FT | |
| B0501-640 1 BRS FR CUT 1/2 HAR 2.892 | 300 FT | |
| B0501-650 1-1/8 BRS FR CUT 1/2 HARD 3.662 | 48 FT | |

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| B0501-650 1-1/8 BRS FR CUT 1/2 HARD | 1,200.00 FT |
| B0501-655 1-3/16 BRS FR CUT 1/2 HARD | 36 FT |
| B0501-655 1-3/16 BRS FR CUT 1/2 HARD | 1,200.00 FT |
| B0501-660 1-1/4 BRS FR CUT 1/2 HARD | 60 FT |
| B0501-660 1-1/4 BRS FR CUT 1/2 HARD | 1,200.00 FT |
| B0501-670 1-3/8 BRS FR CUT 1/2 HARD | 36 FT |
| B0501-670 1-3/8 BRS FR CUT 1/2 HARD | 1,200.00 FT |
| B0501-680 1-1/2 BRS FR CUT 1/2 HARD | 48 FT |
| B0501-690 1-5/8 BRS FR CUT 1/2 HARD | 12 FT |
| B0501-690 1-5/8 BRS FR CUT 1/2 HARD | 216 FT |
| B0501-700 1-3/4 BRS FR CUT 1/2 HARD | 300 FT |
| B0501-710 1-7/8 BRS FR CUT 1/2 HARD | 12 FT |
| B0501-710 1-7/8 BRS FR CUT 1/2 HARD | 300 FT |
| B0501-720 2 BRS FR CUT 1/2 HAR | 500 FT |
| B0501-730 2-1/8 BRS FR CUT 1/2 HARD | 96 FT |
| B0501-760 2-1/2 BRS FR CUT 1/2 HARD | 36 FT |
| B0501-760 2-1/2 BRS FR CUT 1/2 HARD | 36 FT |
| B0501-800 3 " BRS FR CUT 1/2 | 6 FT |
| B0501-800 3 " BRS FR CUT 1/2 | 60 FT |
| B0501-800 3 " BRS FR CUT 1/2 | 12 FT |
| B0501-840 3-1/2 BRS FR CUT 1/2 HARD | 6.87 FT |
| B0502-120 3/16 BRASS FR CUT 1/2 HARD | 96 FT |
| B0502-240 3/8 BRS FR CUT 1/2 HARD | 12 FT |
| B0502-240 3/8 BRS FR CUT 1/2 HARD | 96 FT |
| B0502-280 7/16 BRS FR CUT 1/2 HARD | 300 FT |
| B0502-320 1/2 BRS FR CUT 1/2 HARD | 300 FT |
| B0502-360 9/16 BRS FR CUT 1/2 HARD | 24 FT |
| B0502-360 9/16 BRS FR CUT 1/2 HARD | 244 FT |
| B0502-400 5/8 BRS FR CUT 1/2 HARD | 204 FT |
| B0502-440 11/16 BRS FR CUT 1/2 HARD | 204 FT |
| B0502-480 3/4 BRS FR CUT 1/2 HARD | 2,000.00 FT |
| B0502-520 13/16 BRS FR CUT 1/2 HARD | 24 FT |
| B0502-520 13/16 BRS FR CUT 1/2 HARD | 8,000.00 FT |
| B0502-560 7/8 BRS FR CUT 1/2 HARD | 36 FT |
| B0502-560 7/8 BRS FR CUT 1/2 HARD | 8,000.00 FT |
| B0502-640 1 BRS FR CUT 1/2 HA | 8,000.00 FT |
| B0502-645 1-1/16 BRS FR CUT 1/2 HARD | 300 FT |
| B0502-650 1-1/8 BRS FR CUT 1/2 HARD | 36 FT |
| B0502-650 1-1/8 BRS FR CUT 1/2 HARD | 48 FT |
| B0502-655 1-3/16 BRS FR CUT 1/2 HARD | 300 FT |
| B0502-670 1-3/8BRS FR CUT 1/2 HARD | 300 FT |
| B0502-680 1-1/2 BRS FR CUT 1/2 HARD | 24 FT |
| B0502-680 1-1/2 BRS FR CUT 1/2 HARD | 500 FT |
| B0502-700 1-3/4 BRS FR CUT 1/2 HARD | 1,200.00 FT |
| B0502-710 1-7/8 BRS FR CUT 1/2 HARD | 800 FT |
| B0503-480 3/4 BRS FR CUT 1/2 H | 12 FT |
| B0503-480 3/4 BRS FR CUT 1/2 H | 800 FT |
| B0503-650 1-1/8 BRS FR CUT 1/2 HARD | 24 FT |
| B0503-680 1-1/2 BRS FR CUT 1/2 HARD | 24 FT |
| B0503-690 1-5/8 BRASS FR CUT 1/2 HARD | 244 FT |
| B0503-720 2 BRS FR CUT 1/2 HAR | 144 FT |
| B0503-760 2-1/2 BRS FR CUT 1/2 HARD | 48 FT |

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| B0504-254 3/8X1-1/2 BRASS FR CUT 1/2HD | 3 FT |
| B0504-254 3/8X1-1/2 BRASS FR CUT 1/2HD | 12 FT |
| B0504-254 3/8X1-1/2 BRASS FR CUT 1/2HD | 12 FT |
| B0504-254 3/8X1-1/2 BRASS FR CUT 1/2HD | 24 FT |
| B0504-404 5/8X1 BRASS FR CUT 1/2 HARD | 208 FT |
| B0504-485 3/4X1-3/4 BRASS FR CUT 1/2HD | 12 FT |
| B0504-489 3/4X1-1/2 BRASS FR CUT 1/2HD | 36 FT |
| B0504-489 3/4X1-1/2 BRASS FR CUT 1/2HD | 48 FT |
| B0504-644 1X1-1/2 BRASS FR CUT 1/2 HARD | 44 FT |
| B0504-644 1X1-1/2 BRASS FR CUT 1/2 HARD | 208 FT |
| B0504-666 1-1/4X2 BRASS FR CUT 1/2 HARD | 12 FT |
| B0504-666 1-1/4X2 BRASS FR CUT 1/2 HARD | 208 FT |
| B0504-686 1-1/2X2 BRASS FR CUT 1/2 HARD | 24 FT |
| B0504-694 1-1/2X3-1/2 BRASS FR CUT 1/2HD | 84 FT |
| B0519-657 1X2X1/8 BRS HRD DRAW | 208 FT |
| B0525-123 3/16X.032 BRS HRD DRAWN | 60 FT |
| B0525-123 3/16X.032 BRS HRD DRAWN | 288 FT |
| B0525-126 3/16X.049 BRS HRD DRAWN | 24 FT |
| B0525-163 1/4 X .032 BRASS HRD DRAWN | 96 FT |
| B0525-164 1/4X.035 BRS HRD DRAWN | 96 FT |
| B0525-245 3/8X.042 BRS HRD DRAWN | 96 FT |
| B0525-288 7/16X.062 BRS HRD DRAWN | 500 FT |
| B0525-405 5/8X.042 BRS HRD DRAWN | 96 FT |
| B0525-676 1-3/8X.064 BRS HRD DRAWN | 96 FT |
| B0525-682 1-1/2X.125 BRS HARD DRAWN | 12 FT |
| B0525-691 1-5/8X.025 BRS HRD DRAWN | 208 FT |
| B0555-270 3/16X.032 BRS/COP 33 | 208 FT |
| B0555-281 7/16X.020 BRS/COP 33 | 24 FT |
| B0611-320 1/2 LEAD BRONZE/ COP 314 | 800 FT |
| B0611-400 5/8 LEAD BRONZE/ COP 314 | 144 FT |
| B0611-560 7/8 LEAD BRONZE/ COP 314 | 208 FT |
| B0611-640 1 LEAD BRONZE/ COP 314 | 96 FT |
| B0611-650 1-1/8 LEAD BRONZE/ COP 314 | 96 FT |
| B0611-660 1-1/4 LEAD BRONZE/ COP 314 | 96 FT |
| B0611-670 1-3/8" LEAD BRONZE/ COP 314 | 96 FT |
| B0611-680 1-1/2 LEAD BRONZE/ COP 314 | 96 FT |
| B0611-690 1-5/8 LEAD BRONZE/ COP 314 | 96 FT |
| B0611-700 1-3/4 LEAD BRONZE/ COP 314 | 600 FT |
| B0611-720 2" LEAD BRONZE/ COP 314 | 144 FT |
| B0611-760 2-1/2 LEAD BRONZE/ COP 314 | 24 FT |
| B0614-646 1X2 LEAD BRONZE/ COP 314 | 236 FT |
| B0641-320 1/2 DURONZE III COP | 208 FT |
| B0641-560 7/8 DURONZE III COP | 1,248.00 FT |
| B0641-640 1 DURONZE III COP 64 | 208 FT |
| B0641-660 1-1/4 DURONZE III COP 642 | 208 FT |
| B0691-650 1-1/8 POLYPROPYLENE | 4 FT |
| B0751-320 1/2 NATURAL DELRIN 5 | 16 FT |
| B0751-660 1-1/4 DELRIN 150 (EXTRUDED) | 16 FT |
| B0751-660 1-1/4 DELRIN 150 (EXTRUDED) | 20 FT |
| B0751-740 2-1/4 DELRIN 150 (EXTRUDED) | 64 FT |
| B0751-740 2-1/4 DELRIN 150 (EXTRUDED) | 8 FT |
| B0751-885 4-1/4 DELRIN 150 (EXTRUDED) | 12 FT |

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| B0751-885 4-1/4 NATURAL DELRIN 500 | 4 FT | |
| B0754-330 1/2X5 DELRIN 150 (EXTRUDED) | 12 FT | |
| B0754-480 3/4 x 5 NATURAL DELRIN 500 | 24 FT | |
| B0771-320 1/2 BLK DELRIN 507 | 8 FT | |
| B0781-640 1 BLK DELRIN 507 | 10 FT | |
| B0781-680 1-1/2 BLK DELRIN 507 | 16 FT | |
| B0781-690 1-5/8 BLK DELRIN 507 | 10 FT | |
| B0781-710 1-7/8 BLK DELRIN 507 | 16 FT | |
| B0781-720 2 BLK DELRIN 507 | 8 FT | |
| B0781-740 2-1/4 BLK DELRIN 507 | 20 FT | |
| B0783-740 2-1/4 BLK DELRIN 507 | 16 FT | |
| B0784-330 1/2X4 BLK DELRIN 507 | 20 FT | |
| B0784-405 5/8X1-5/8 BLK DELRIN | 8 FT | |
| B0784-405 5/8X1-5/8 BLK DELRIN | 20 FT | |
| B0784-414 5/8X3 BLK DELRIN 507 | 12 FT | |
| B0784-415 5/8X3-1/2 BLK DELRIN | 8 FT | |
| B0784-560 3/4X7/8 BLK DELRIN 5 | 12 FT | |
| B0784-560 3/4X7/8 BLK DELRIN 5 | 12 FT | |
| B0784-654 1 X 3 BLK DELRIN 507 | 12 FT | |
| B0784-654 1 X 3 BLK DELRIN 507 | 12 FT | |
| B0784-775 2 X 4 BLK DELRIN 507 | 12 FT | |
| B0784-780 2 1/2 X4 BLACK DELRI | 12 FT | |
| B0784-780 2 1/2 X4 BLACK DELRI | 12 FT | |
| B0813-480 3/4 COP ALLOY 110 | 12 FT | 26.082 |
| B0911-660 1-1/4 LEAD/COP ANACON 187 | 204 FT | 967 |
| B0921-480 3/4 DIA ALUM 2024-T | 24 FT | 13 |
| B0921-640 1 ALUM 2024-T4 | 24 FT | 22 |
| B0921-650 1-1/8 ALUM 2024-T4 | 288 FT | 343 |
| B0921-660 1-1/4 ALUM 2024-T4 | 24 FT | 35 |
| B0921-670 1-3/8 ALUM 2024-T4 | 12 FT | 21 |
| B0921-680 1-1/2 ALUM 2024-T4 | 48 FT | 102 |
| B0921-730 2-1/8 ALUM 2024-T4 | 12 FT | 51 |
| B0921-780 2-3/4 ALUM 2024-T4 | 12 FT | 86 |
| B0921-820 3-1/4 ALUM 2024-T4 | 12 FT | 119 |
| B0921-830 3-3/8 ALUM 2024-T4 | 12 FT | 129 |
| B0921-860 3-3/4 ALUM 2024-T4 | 24 FT | |
| B0921-860 3-3/4 ALUM 2024-T4 | 12 FT | 477 |
| B0921-965 6 " DIA ALUM 2024- | 12 FT | 407 |
| B0922-560 7/8 ALUM 2024-T4 | 24 FT | |
| B0922-560 7/8 ALUM 2024-T4 | 24 FT | 2,443 |
| B0922-560 7/8 ALUM 2024-T4 | 24 FT | |
| B0923-640 1 ALUM 2024-T4 | 24 FT | 29 |
| B0923-670 1-3/8 SQ. ALUM 2024 | 12 FT | 17 |
| B0923-700 1-3/4 SQ. ALUM 2024 | 24 FT | 88 |
| B0924-093 1/8X1/4 ALUM 2024-T4 | 84 FT | 3. |
| B0924-094 1/8X1 ALUM 2024-T4 | 24 FT | 4 |
| B0924-185 1/4 X 6 ALUM 2024-T4 | 36 FT | 65 |
| B0924-413 5/8X2 ALUM 2024-T4 | 12 FT | 18 |
| B0924-650 1X2-1/2 ALUM 2024-T4 | 24 FT | 72 |
| B0924-654 1 X 3 ALUM 2024-T4 | 24 FT | 86 |
| B0924-693 1-1/2X3 ALUM 2024-T4 | 36 FT | 194 |
| B0941-740 2-1/4 ALUM 6061-T6 | 24 FT | 141 |

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| B0941-850 4-1/2 ALUM 6061-T6 | 12 FT | 229 |
| B0941-967 7-1/2 ALUM 6061-T6 | 3 FT | 159 |
| B0945-745 2-1/4X.25 ALUM 6061- | 12 FT | 54 |
| B0945-966 8X1 " ALUM 6061-T6" | 12 FT | 678 |
| B0951-720 2 " ST.STL TYP 303" | 24 FT | 257 |
| B0951-730 2-1/8 ST.STL TYP 303 | 24 FT | 290 |
| B0952-560 7/8 ST.STL TYP 303 | 12 FT | 27 |
| B1015-161 1/4X..035 ALUM 3003- | 400 FT | 22 |
| B1015-240 3/8X.035 ALUM 3003-H | 600 FT | 77 |
| B1015-323 1/2X.049 ALUM 3003-H | 300 FT | 68 |
| B1021-640 1 TELLURIUM COPPER | 864 FT | |
| B1021-640 1 TELLURIUM COPPER | 72 FT | 21,049 |
| B1021-640 1 TELLURIUM COPPER | 6,000.00 FT | |
| B1021-760 2-1/2in TELLURIUM COPPER | 24 FT | 455 |
| B1024-409 5/8X2-1/4 TELLURIUM COPPER | 12 FT | 65 |
| B1051-320 1/2 OF HC COPPER | 22 FT | |
| B1051-320 1/2 OF HC COPPER | 60 FT | 98 |
| B1051-320 1/2 OF HC COPPER | 48 FT | |
| B1051-480 3/4 OF HC COPPER | 144 FT | |
| B1051-480 3/4 OF HC COPPER | 288 FT | 2 786 |
| B1051-480 3/4 OF HC COPPER | 1,200.00 FT | |
| B1051-560 7/8 OFHC COPPER | 180 FT | |
| B1051-560 7/8 OFHC COPPER | 4,000.00 FT | 9,712 |
| B1051-660 1-1/4 OF HC COPPER | 1,007.00 FT | |
| B1051-660 1-1/4 OF HC COPPER | 6,000.00 FT | 36,071 |
| B1051-660 1-1/4 OF HC COPPER | 600 FT | |
| B1051-670 1-3/8 OF HC COPPER | 48 FT | |
| B1051-670 1-3/8 OF HC COPPER | 1,000.00 FT | 6,013 |
| B1051-680 1-1/2 OF HC COPPER | 24 FT | |
| B1051-680 1-1/2 OF HC COPPER | 208 FT | 1,584 |
| B1051-720 2 " OF HC COPPER" | 72 FT | |
| B1051-720 2 " OF HC COPPER" | 488 FT | 6,798 |
| B1081-700 1-3/4 TEFLON PTFE | 6 FT | |
| B1091-400 5/8 GLASS FILLED DELRIN 570 | 10 FT | |
| B1091-660 1-1/4 GLASS FILLED DELRIN 570 | 5 FT | |
| B1091-660 1-1/4 GLASS FILLED DELRIN 570 | 85 FT | |
| B1091-675 1-1/2 GLASS FILLED DELRIN 570 | 32 FT | |
| B1091-800 3" GLASS FILLED DELRIN 570 | 10 FT | |
| B1091-800 3" GLASS FILLED DELRIN 570 | 10 FT | |
| B1094-646 1X1-1/2 GLASS FIL DELRIN 570 | 4 FT | |
| B1101-240 3/8 VESPEL SP-1 DUPO | 76 " | |
| B1101-640 1 VESPEL SP-1 DUPONT | 38 " | |
| B1101-640 1 VESPEL SP-1 DUPONT | 28.5 " | |
| B1135-243 3/8X.035 COP H/D PHOS 122 | 244 FT | ? |
| B1201-720 2 " PEEK MATERIAL" | 16 FT | |
| B1201-720 2 " PEEK MATERIAL" | 24 FT | |
| B1201-720 2 " PEEK MATERIAL" | 8 FT | |
| B1511-700 1 3/4 ERTAYTE(P.E.T.)NATURAL | 8 FT | |
| B1511-950 5 " DIA, ERTALYTE" | 12 FT | |
| B1511-950 5 " DIA, ERTALYTE" | 8 FT | |
| B1511-960 5-1/2 ERTALYTE PET-P | 8 FT | |
| B1511-960 5-1/2 ERTALYTE PET-P | 8 FT | |

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| G51453 BACK FERRULE 3/8 OD TUBE BRS | 100 PC |
| G51453 BACK FERRULE 3/8 OD TUBE BRS | 100 PC |
| G51759 SHAFT (TRIGGER SW PPG) OD .25 | 58 PC |
| G51923 CONTACT TUBE 11GA | 25 PC |
| G51923 CONTACT TUBE 11GA | 25 PC |
| G51923 CONTACT TUBE 11GA | 25 PC |
| G52079 6P-II GUN NAMEPLATE | 100 PC |
| NAMEPLATE | 100 PC |
| NAMEPLATE (G52235) | 103 PC |
| G54041 BUSHING TUNGSTEN .781 I.D. | 250 PC |
| G54336 VALVE HANDLE | 50 PC |
| G54336 VALVE HANDLE | 50 PC |
| G54336 VALVE HANDLE | 50 PC |
| G54336 VALVE HANDLE | 50 PC |
| NAMEPLATE | 100 PC |
| NAMEPLATE | 100 PC |
| G54902 LCAG WARNING LEGEND | 40 PC |
| SCREW CAPTIVE 5/8 X 10-24 ST.STL | 50 PC |
| G55801 PIN | 75 PC |
| G55801 PIN | 75 PC |
| NUT (3/8-24) & STEM (1/4 ID HOSE) BRS AS | 75 PC |
| NUT (3/8-24) & STEM (1/4 ID HOSE) BRS AS | 40 PC |
| NUT (3/8-24) & STEM (1/4 ID HOSE) BRS AS | 35 PC |
| NUT (3/8-24 LH) & STEM (1/4 ID HOSE) BRS | 25 PC |
| NUT (3/8-24 LH) & STEM (1/4 ID HOSE) BRS | 50 PC |
| NUT (3/8-24 LH) & STEM (1/4 ID HOSE) BRS | 50 PC |
| PIN ROLL 1/16 DIA X 3/8 LONG | 200 PC |
| G56212 BACK CONNECTOR (PPGT) | 20 PC |
| G56212 BACK CONNECTOR (PPGT) | 16 PC |
| G56969 PPGT, HIGH PROFILE RING | 7 PC |
| INTERNAL SNAP RING PLIERS | 100 PC |
| G57412 INSULATING SCREW M8 x 1 PEEK | 1,000 PC |
| G57412 INSULATING SCREW M8 x 1 PEEK | 600 PC |
| G57524 INSERT | 500 PC |
| G57613 COUPLING 1/2in BRS | 400 PC |
| PKG51113 IGNITOR ASSEMBLY (24 VAC) PKG | 1 PC |
| PPG14065 O-RING 1.364 X .070 (2 QTY) PKG | 8 PC |
| PB35238 TUBING 304 ST STL .148x.118x.015 | 50 FT |
| PB40847 TUBING ST STL SEAMLESS .0933 | 64.75 FT |
| PB42243 ESTRALON | 4 FT |
| PB42243 ESTRALON | 4 FT |
| PB42474 BRASS TUBING LENGTH 36" OD .375" | 500 FT |
| PB45038 PEEK 450G 3/8 | 16 FT |
| PB47458 ANNEALED BRASS ROD, 1-3/16" | 492 FT 2,007 |
| PB51954 ROD TUNGSTEN/COPPER ALLOY.3149 D | 253 PC 118 |
| PB51954 ROD TUNGSTEN/COPPER ALLOY.3149 D | 239 PC |
| PB56377 ROD 3/8 " DIA CHROMIUM COPPER | 800 FT |
| PB56377 ROD 3/8 " DIA CHROMIUM COPPER | 180 FT 418 |
| PB56386 ROD 5/8 " DIA SST 17-4 PH | 12 FT 13 |
| ROD 5/8 " DIA SST 17-4 PH" | 24 FT 26 |
| PB56388 BAR 1/2 " DIA SST 17-4 PH | 36 FT 24 |
| PB56628 .375 COPPER TUNGSTEN, GRADE K | 50 FT 19 |

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| PD00913 SPRING CLIP | 200 PC |
| PD00913 SPRING CLIP | 150 PC |
| 11PD00950 UPPER ROLL BEARING | 226 PC |
| 11PD00950 UPPER ROLL BEARING | 350 PC |
| PD00994 GEAR COVER CASTER | 52 PC |
| PD01535 HANDLE FRONT HALF CASTING | 260 PC |
| CASTING PIVOT ARM | 108 PC |
| PD03005 CASTING PIVOT ARM | 108 PC |
| PD03005 CASTING PIVOT ARM | 84 PC |
| PD06437 BEARING BRONZE CASTING | 250 PC |
| 11PD09231 GAS HEAD 6061 ALUMINUM | 298 PC |
| PD09235 BEARING COVER | 205 PC |
| PD09271 CAM INVESTMENT CASTING | 57 PC |
| PD09309 GOVERNOR SPRING | 250 PC |
| PD09309 GOVERNOR SPRING | 257 PC |
| PD09323 CENTRAL HOUSING WIRE GUN | 212 PC |
| PD09326 GUN HANDLE REAR HALF CASTER | 125 PC |
| PD09326 GUN HANDLE REAR HALF CASTER | 132 PC |
| PD09657 SNUBBER COVERS | 15 PC |
| PD09657 SNUBBER COVERS | 45 PC |
| PD09771 MANIFOLD FORGING | 106 PC |
| 11PD10017 LATCH CASTER | 33 PC |
| BRACKET SAND CASTER | 32 PC |
| PD10196 DRIVE ROLL CARRIER DIE CASTING | 285 PC |
| PD10318 INV. CASTING MOUNTING BRACKET | 55 PC |
| PD10569 MOUNTING CLAMP SAND CASTING | 66 PC |
| PD10615 MOUNTING BRACKET INV. CAST. | 56 PC |
| PD10876 CANNISTER IMPACT EXTRUSION 2.50 | 50 PC |
| PD11161 TOOL POST BAR SAND CASTING | 30 PC |
| PD12035 CAM PLATE INVESTMENT CASTING | 55 PC |
| PD12036 CAM PLATE INVESTMENT CASTING | 165 PC |
| PD12211 THUMB BAR INVESTMENT CAST | 110 PC |
| PD12211 THUMB BAR INVESTMENT CAST | 119 PC |
| THUMB BAR INVESTMENT CAST | 165 PC |
| PD12220 VALVE BLOCK INVESTMENT CAST | 110 PC |
| 11PD12770 COOLER BASE BLANK, 1 11/16 " | 26 PC |
| PD24891CASTING GEAR COVER GUN ALUM | 294 PC |
| PD34103 COVER CAP STAMPING | 13 PC |
| PD34103 COVER CAP STAMPING | 14 PC |
| HINGE MACHINING | 150 PC |
| PD34401 CONTACT BLOCK - LEFT CASTING | 110 PC |
| PD34402 CONTACT BLOCK-RIGHT CASTING | 40 PC |
| PD37165 CLAMP INVESTMENT CAST | 56 PC |
| PD37179 HOPPER WINDOW BLANK 7-7/8" D | 50 PC |
| PD37179 HOPPER WINDOW BLANK 7-7/8" D | 50 PC |
| PD37349 MOUNTING BRACKET INVESTMENT CAST | 61 PC |
| PD37349 MOUNTING BRACKET INVESTMENT CAST | 66 PC |
| PD37349 MOUNTING BRACKET INVESTMENT CAST | 66 PC |
| PD39032 PLUG INVESTMENT CAST | 130 PC |
| PD39032 PLUG INVESTMENT CAST | 113 PC |
| PD40901 HOPPER SUPPORT RING SAND CASTING | 25 PC |
| PD40901 HOPPER SUPPORT RING SAND CASTING | 25 PC |

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| PD40901 HOPPER SUPPORT RING SAND CASTING | 25 PC |
| PD40901 HOPPER SUPPORT RING SAND CASTING | 25 PC |
| PD40901 HOPPER SUPPORT RING SAND CASTING | 25 PC |
| PD40901 HOPPER SUPPORT RING SAND CASTING | 25 PC |
| PD40901 HOPPER SUPPORT RING SAND CASTING | 50 PC |
| PD40901 HOPPER SUPPORT RING SAND CASTING | 50 PC |
| PD44078 HOPPER COLLAR BLANK ALUM 7-1/2 D | 24 PC |
| PD44078 HOPPER COLLAR BLANK ALUM 7-1/2 D | 40 PC |
| 11PD45115 MAIN HOUSING PERMANENT MOLD | 75 PC |
| 11PD45115 MAIN HOUSING PERMANENT MOLD | 15 PC |
| 11PD45115 MAIN HOUSING PERMANENT MOLD | 15 PC |
| PD47406 HOPPER SPINNING | 25 PC |
| PD47406 HOPPER SPINNING | 16 PC |
| PD47406 HOPPER SPINNING | 16 PC |
| PD47406 HOPPER SPINNING | 16 PC |
| JIG PLATE,1/2" THK ALUM 5 1/8 x 6 1/8" | 50 PC |
| ALUMINUM BLANK 4" x 4" x 4 1/2" | 40 PC |
| 11PD51768 JIG PLATE 1/2 " ALUMINUM" | 50 PC |
| PD51818 PLATE-DELRIN 4.75 x 3.25 x 1.25 | 25 PC |
| PD51818 PLATE-DELRIN 4.75 x 3.25 x 1.25 | 50 PC |
| MANIFOLD BLANK (PPC ARC) | 50 PC |
| PD55830 HANDLE CASTING (LCAG ARC) | 100 PC |
| PD56955 COPPER ALLOY BLANK (10MB) | 20 PC |
| 11PD57604 PEEK BLANK, F210 INSULATOR | 74 PC |
| 11PR57058 TUNGSTEN BLANK | 25,000 PC |
| 11PR57059 TUNGSTEN BLANK | 5,000 PC |
| 11PR57060 TUNGSTEN BLANK | 500 PC |
| 11PR57061 TUNGSTEN BLANK | 425 PC |
| 11PR57062 TUNGSTEN BLANK | 293 PC |
| PR57063 TUNGSTEN BLANK | 975 PC |
| PR57063 TUNGSTEN BLANK | 5,500 PC |
| 11PR57138 COPPER BLANK | 2,600 PC |
| 11PR57138 COPPER BLANK | 2,600 PC |
| 11PR57138 COPPER BLANK | 2,600 PC |
| 11PR57138 COPPER BLANK | 3,332 PC |
| 11PR57138 COPPER BLANK | 1,250 PC |
| 11PR57138 COPPER BLANK | 1,250 PC |
| 11PR57138 COPPER BLANK | 1,250 PC |
| 11PR57138 COPPER BLANK | 1,614 PC |
| 11PR57138 COPPER BLANK | 1,406 PC |
| 11PR57138 COPPER BLANK | 1,405 PC |
| 11PR57138 COPPER BLANK | 1,334 PC |
| 11PR57138 COPPER BLANK | 1,338 PC |
| 11PR57138 COPPER BLANK | 1,500 PC |
| 11PR57139 COPPER BLANK | 1,000 PC |
| 11PR57139 COPPER BLANK | 1,030 PC |
| 11PR57139 COPPER BLANK | 1,030 PC |
| 11PR57139 COPPER BLANK | 500 PC |
| 11PR57139 COPPER BLANK | 510 PC |
| 11PR57139 COPPER BLANK | 515 PC |
| 11PR57140 COPPER BLANK | 544 PC |
| 11PR57140 COPPER BLANK | 250 PC |

.072 #/pc

2,086

.027 9170

798

.38 #/pc

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|---|---|
| 11PR57140 COPPER BLANK | 294 PC |
| 11PR57140 COPPER BLANK | 276 PC |
| 11PR57142 COPPER BLANK | 117 PC |
| 11PR57142 COPPER BLANK | 289 PC |
| 11PR57142 COPPER BLANK | 125 PC |
| 11PR57142 COPPER BLANK | 160 PC |
| 11PR57142 COPPER BLANK | 174 PC |
| PR57143 COPPER BLANK | 510 PC |
| PR57143 COPPER BLANK | 250 PC |
| PR57143 COPPER BLANK | 260 PC |
| PR57143 COPPER BLANK | 500 PC |
| PR57143 COPPER BLANK | 500 PC |
| PR57143 COPPER BLANK | 500 PC |
| PR57143 COPPER BLANK | 500 PC |
| PR57143 COPPER BLANK | 592 PC |
| PR57144 COPPER BLANK | 130 PC |
| PR57144 COPPER BLANK | 500 PC |
| PR57144 COPPER BLANK | 500 PC |
| PR57144 COPPER BLANK | 500 PC |
| PR57144 COPPER BLANK | 500 PC |
| PR57144 COPPER BLANK | 500 PC |
| PR57144 COPPER BLANK | 546 PC |
| COMPLETE 2DJRH HYDROGEN PRESS. REGULATOR | 1 PC |
| 4MP805 LOAD CELL ENCLOSURE PACKAGE | 1 PC |
| 9MCD551 CAPACITOR .001 F PACKAGE | 1 PC |
| 9MCD552 CAPACITOR .002 F PACKAGE | 3 PC |
| 9MCD553 CAPACITOR .05 mF PACKAGE | 1 PC |
| B0595-882 COPPER ALLOY 932 4in X 1/2in | 12 FT |
| B1021-740 2-1/4in TELLURIUM COPPER | 24 FT |
| B1201-640 1 " PEEK MATERIAL" | 16 " |
| B1201-640 1 " PEEK MATERIAL" | 384 " |
| G25694 COOLER BASE ASSY TOP | 2 PC |
| G27859 FIXED PIN HEAD WRENCH (10MB) | 100 PC |
| PD25596 SPARK GAP POINT | 100 PC |
| PD25596 SPARK GAP POINT | 100 PC |
| PD25596 SPARK GAP POINT | 100 PC |
| B0924-327 1/2X1-1/4 ALUM 2024-T4 | 36 FT |
| G41196 PLUG, .1562 DIA. x .245 LONG STL | 100 PC |
| G40602 TUBE BRS (3MBTD) | 25 PC |
| G40602 TUBE BRS (3MBTD) | 25 PC |
| G48819 MALE HOSE FITTING STEM | 40 PC |
| G52216 MOTOR GEAR | 5 PC |
| G52218 MOTOR PILOT PLATE | 11 PC |
| G57605 CAP SCREW 8-32X3/4 | 100 PC |
| G57606 SOCKET CAP SCREW 6-32 X 1/4 | 50 PC |
| 8MH57568 ASSY NOZZLE WATER COOL CABLE 8M | 1 PC |
| G57685 MTG BRACKET 3MB-II/3MB SWITCH | 11 PC |
| G57685 MTG BRACKET 3MB-II/3MB SWITCH | 11 PC |
| G57206 STEM SEAT ST STL 8MBT | 25 PC |
| B0781-790 3-1/4 BLK DELRIN 507 | 12 FT |
| W35000 MILLER PLACE MODIFIED 10MB287 | 69 PC |
| G57150 PLUG "1" 6.25mm OD x 3.81mm BRASS | 60 PC |

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|---|---|
| B0895-244 .375X.065 COPPER TUBING | 24 FT |
| B0895-244 .375X.065 COPPER TUBING | 36 FT |
| B0525-406 5/8X.125 BRASS HARD DRAWN | 96 FT |
| B0141-883 4-3/8 COLD ROLLED STEEL | 24 FT |
| G38539 GUN COVER 3MBM | 22 PC |
| G38539 GUN COVER 3MBM | 23 PC |
| G38539 GUN COVER 3MBM | 23 PC |
| G38539 GUN COVER 3MBM | 23 PC |
| B0504-120 Lead Brass Alloy 353 1/8 x 5 | 24 FT |
| B1021-720 2" TELLURIUM COPPER | 24 FT |
| B1021-720 2" TELLURIUM COPPER | 24 FT |
| B1021-720 2" TELLURIUM COPPER | 144 FT |
| G15308X1 HOSE FERRULE .975in ID X .844in | 2,500 PC |
| B0594-414 932 BRONZE 5/8in x 2-1/2in | 24 FT |
| G57832 MOUNTING INSULATOR DELRIN 1.250D. | 17 PC |
| G57832 MOUNTING INSULATOR DELRIN 1.250D. | 22 PC |
| PR57848 TUNGSTEN 1% BLANK .356D. x 1.585 | 170 PC |
| PR57848 TUNGSTEN 1% BLANK .356D. x 1.585 | 130 PC |
| G57737 10MB INSULATOR - FOR MILLER PLACE | 13 PC |
| B1021-480 3/4in TELLURIUM COPPER | 864 FT |
| B1021-480 3/4in TELLURIUM COPPER | 72 FT |
| B1021-480 3/4in TELLURIUM COPPER | 8,000.00 FT |
| G57975 GUN BRACKET PLATE (3MBTD) | 11 PC |
| B1021-700 TELLURIUM COPPER 1-3/4in | 208 FT |
| B1051-700 1-3/4 OFHC COPPER | 24 FT |
| B1051-700 1-3/4 OFHC COPPER | 191 FT |
| PR58114 TUNGSTEN 1% BLANK .356D. x 1.840 | 100 PC |
| PR58114 TUNGSTEN 1% BLANK .356D. x 1.840 | 100 PC |
| B0951-200 5/16 ST.STL TYP 303 | 12 FT |
| B0951-200 5/16 ST.STL TYP 303 | 48 FT |
| B1021-240 3/8in TELLURIUM COPPER | 408 FT |
| B1021-240 3/8in TELLURIUM COPPER | 5,000.00 FT |
| B1021-560 7/8in TELLURIUM COPPER | 288 FT |
| B1021-560 7/8in TELLURIUM COPPER | 1,200.00 FT |
| B1021-660 1-1/4in TELLURIUM COPPER | 144 FT |
| B1021-660 1-1/4in TELLURIUM COPPER | 984 FT |
| G58044 GUN BODY (WJ) | 20 PC |
| G58044 REAR GUN BODY (WOKAJET) | 20 PC |
| G58045 REAR COVER-MACHINED (WOKAJET) | 22 PC |
| B0311-760 2-1/2 ST.STL TYPE 41 | 24 FT |
| B0311-740 2-1/8 ST.STL TYPE 41 | 24 FT |
| B0941-700 1-3/4 ALUM 6061-T6 | 36 FT |
| B0941-700 1-3/4 ALUM 6061-T6 | 48 FT |
| B0944-660 1-1/4 X 2-1/4 ALUMINUM 6061-T6 | 24 FT |
| B0311-700 1-3/4 ST.STL TYPE 416 | 48 FT |
| B0311-700 1-3/4 ST.STL TYPE 416 | 49.5 FT |
| PD58312 ALUM. 6061 1/8 x 1-1/4 x 31-1/2 | 80 PC |
| PD58312 ALUM. 6061 1/8 x 1-1/4 x 31-1/2 | 80 PC |
| PR58289 TUNGSTEN BLANK, 7/16 Dia x 1.290 | 50 PC |
| PR58289 TUNGSTEN BLANK, 7/16 Dia x 1.290 | 500 PC |
| PR58292 TUNGSTEN BLANK, 5/16 Dia x 1.415 | 50 PC |
| PR58292 TUNGSTEN BLANK, 5/16 Dia x 1.415 | 100 PC |

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|---|---|
| B0911-640 1" LEAD/COP ANACON 187 | 24 FT |
| PR58291 COPPER BLANK, .500 Dia x 1.450 | 100 PC — 8.8 |
| PR58334 COPPER BLANK .500 x 1.560 | 100 PC — 9.9 |
| PR58335 TUNGSTEN BLANK .312 x .875 | 500 PC |
| PR58339 COPPER BLANK .500 x .745 | 50 PC — 3.1 |
| PR58340 TUNGSTEN BLANK .677 x .495 | 500 PC |
| B1021-710 1-7/8in TELLURIUM COPPER | 36 FT |
| G45555 PLUG SET .250 D. X .225 LONG | 100 PC |
| PR58349 TUNGSTEN 1% BLANK .247 x .615 | 500 PC |
| PR58363 TUNGSTEN 1% BLANK .750 x 1.090 | 500 PC |
| PD58413 CARBIDE BLANK-PICK-UP SHAFT-HOSP | 275 PC |

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| Short text | PO quantity | OUn |
|---|---|---|
| 1041539 OUT ANODIZE | 20 | PC |
| 1 X 2 LEADED BRONZE 932 ALLOY | 48 | FT |
| 1000237 OUT PLATE | 1 | PC |
| 1000257 OUT HEAT TRT | 20 | PC |
| 1000517 OUT PLATE | 18 | PC |
| 1000517 OUT PLATE | 7 | PC |
| 1000517 OUT PLATE | 19 | PC |
| 1000517 OUT PLATE | 13 | PC |
| 1000517 OUT PLATE | 24 | PC |
| 1000517 / G06134 | 25 | PC |
| 1000524 OUT PLATE | 20 | PC |
| 1000524 OUT PLATE | 25 | PC |
| 1001513 OUT EB WELD | 11 | PC |
| 1001812 OUT PLATE | 500 | PC |
| 1001812 OUT PLATE | 464 | PC |
| 1001812 OUT PLATE | 200 | PC |
| 1001812 OUT PLATE | 337 | PC |
| 1001825 OUT PLATE | 105 | PC |
| 1001825 OUT PLATE | 269 | PC |
| 1001835 OUT PLATE | 25 | PC |
| 1001967 OUT PLATE | 80 | PC |
| 1021104 OUT PLATE | 105 | PC |
| 1021106 OUT HEAT-TREAT | 115 | PC |
| 1021106 OUT HEAT-TREAT | 350 | PC |
| 1021106 OUT HEAT-TREAT | 275 | PC |
| 1021106 OUT SURFACE | 115 | PC |
| 1021106 OUT SURFACE | 350 | PC |
| 1021106 OUT SURFACE | 350 | PC |
| 1021106 OUT SURFACE | 275 | PC |
| 1021109 OUT HEAT-TREAT | 320 | PC |
| 1021109 OUT HEAT-TREAT | 166 | PC |
| 1021109 OUT SURFACE | 320 | PC |
| 1021109 OUT SURFACE | 166 | PC |
| 1021110 OUT SURFACE | 250 | PC |
| 1022367 OUT SURF FIN | 79 | PC |
| 1022367 OUT SURF FIN | 104 | PC |
| 1022367 OUT SURF FIN | 82 | PC |
| 1022439 OUT PLATE | 66 | PC |
| 1022439 OUT PLATE | 128 | PC |
| 1022481 OUT PLATE | 80 | PC |
| 1022481 OUT PLATE | 82 | PC |
| 1022522 OUT HEAT TREAT | 50 | PC |
| 1022546 OUT HEAT TRT | 35 | PC |
| 1022697 OUT HEAT TRT | 58 | PC |
| 1022697 OUT HEAT TRT | 51 | PC |
| 1022697 OUT HEAT TRT | 58 | PC |
| 1022697 OUT HEAT TRT | 58 | PC |
| 1022697 OUT HEAT TRT | 64 | PC |
| 1022697 OUT PLATING | 64 | PC |
| 1022753 OUT HEAT TREAT | 150 | PC |

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|---|---|
| 1022753 OUT MACHINE | 53 PC |
| 1022753 / G06399 | 150 PC |
| 1022787 OUT PLATE | 126 PC |
| 1022790 OUT HEAT TREAT | 111 PC |
| 1022790 OUT HEAT TREAT | 71 PC |
| 1022794 OUT PAINT | 77 PC |
| 1022794 OUT PAINT | 100 PC |
| 1022795 OUT HEAT-TREAT | 120 PC |
| 1022795 OUT HEAT-TREAT | 60 PC |
| 1022795 OUT HEAT-TREAT | 80 PC |
| 1022795 OUT HEAT-TREAT | 98 PC |
| 1022796 OUT HEAT TRT | 98 PC |
| 1022796 OUT HEAT TRT | 98 PC |
| 1022796 OUT HEAT TRT | 60 PC |
| 1022796 OUT HEAT TRT | 49 PC |
| 1022796 OUT HEAT TRT | 74 PC |
| 1022807 OUT SURF FIN | 45 PC |
| 1022807 OUT SURF FIN | 85 PC |
| 1022807 OUT SURF FIN | 70 PC |
| 1022807 OUT PAINT | 45 PC |
| 1022807 OUT PAINT | 85 PC |
| 1022811 OUT HEAT TRT | 31 PC |
| 1022812 OUT HEAT TREAT | 23 PC |
| 1022834 OUT HEATTREAT | 10 PC |
| 1022841 OUT PAINT | 28 PC |
| 1022842 OUT HEAT TRT | 51 PC |
| 1022843 OUT HEAT TRT | 134 PC |
| 1022843 OUT HEAT TRT | 103 PC |
| 1022856 OUT HEAT TRT | 72 PC |
| 1022856 OUT HEAT TRT | 72 PC |
| 1022856 OUT HEAT TRT | 70 PC |
| 1022903 OUT PAINT | 20 PC |
| 1022903 OUT PAINT | 15 PC |
| 1022917 OUT PAINT | 24 PC |
| 1022917 OUT PAINT | 15 PC |
| 1022990 OUT PLATE | 22 PC |
| 1023006 OUT HEAT TREAT | 95 PC |
| 1023006 OUT HEAT TREAT | 100 PC |
| 1023006 OUT HEAT TREAT | 164 PC |
| 1023006 OUT HEAT TREAT | 105 PC |
| 1023006 OUT HEAT TREAT | 100 PC |
| 1023015 OUT PLATE | 109 PC |
| 1023047 OUT HEAT TRT | 78 PC |
| 1023047 OUT HEAT TRT | 78 PC |
| 1023047 OUT HEAT TRT | 120 PC |
| 1023047 OUT HEAT TRT | 60 PC |
| 1023053 OUT HEAT TRT | 84 PC |
| 1023053 OUT HEAT TRT | 84 PC |
| 1023053 OUT HEAT TRT | 110 PC |
| 1023053 OUT HEAT TRT | 100 PC |
| 1023053 OUT HEAT TRT | 100 PC |
| 1023059 OUT PLATE | 40 PC |

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|---|---|
| 1023062 OUT PAINT | 32 PC |
| 1023062 OUT PAINT | 32 PC |
| 1023064 OUT HEAT TRT | 28 PC |
| 1023064 OUT HEAT TRT | 28 PC |
| 1023068 OUT PAINT | 60 PC |
| 1023068 OUT PAINT | 62 PC |
| 1023068 OUT PAINT | 75 PC |
| 1023068 OUT PAINT | 83 PC |
| 1023078 OUT HEAT TRT | 120 PC |
| 1023078 OUT HEAT TRT | 76 PC |
| 1023078 OUT HEAT TRT | 100 PC |
| 1023098 OUT PLATE | 50 PC |
| 1023098 OUT PLATE | 150 PC |
| 1023103 OUT PLATE | 18 PC |
| 1023103 OUT PLATE | 18 PC |
| 1023103 OUT PLATE | 21 PC |
| 1023108 OUT PLATE | 20 PC |
| 1023122 OUT HEAT TREAT | 50 PC |
| 1023122 OUT HEAT TREAT | 124 PC |
| 1023122 OUT HEAT TREAT | 70 PC |
| 1023123 OUT HEAT TREAT | 75 PC |
| 1023210 OUT PLATE G12210 | 254 PC |
| 1023279 OUT PLATE | 10 PC |
| 1023305 OUT PAINT | 15 PC |
| 1023305 OUT PAINT | 15 PC |
| 1023352 OUT HEAT TRT | 212 PC |
| 1023352 OUT HEAT TRT | 212 PC |
| 1023352 OUT HEAT TRT | 212 PC |
| 1023352 OUT HEAT TRT | 250 PC |
| 1023353 OUT HEAT TREAT | 50 PC |
| 1023353 OUT HEAT TREAT | 50 PC |
| 1023353 OUT HEAT TREAT | 200 PC |
| 1023395 OUT HEAT TREAT | 500 PC |
| 1023395 OUT HEAT TREAT | 400 PC |
| 1023395 OUT HEAT TREAT | 500 PC |
| 1023395 OUT HEAT TREAT | 650 PC |
| 1023395 OUT HEAT TREAT | 585 PC |
| 1023395 OUT HEAT TREAT | 750 PC |
| 1023395 OUT HEAT TREAT | 350 PC |
| 1023395 OUT HEAT TREAT | 500 PC |
| 1023395 OUT HEAT TREAT | 600 PC |
| 1023397 OUT HEAT-TREAT | 150 PC |
| 1023397 OUT HEAT-TREAT | 67 PC |
| 1023397 OUT HEAT-TREAT | 85 PC |
| 1023397 OUT HEAT-TREAT | 300 PC |
| 1023397 OUT HEAT-TREAT | 400 PC |
| 1023397 / G14359 | 100 PC |
| 1023429 OUT PAINT | 12 PC |
| 1023429 OUT PAINT | 21 PC |
| 1023430 OUT PAINT | 12 PC |
| 1023430 OUT PAINT | 24 PC |
| 1023430 OUT PAINT | 22 PC |

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|---|---|---|---|
| 1023463 | OUT | PLATE | 6 PC |
| 1023463 | OUT | PLATE | 4 PC |
| 1023752 | OUT | HEAT TRT | 75 PC |
| 1023772 | OUT | HEAT TRT | 107 PC |
| 1023782 | OUT | HEAT TREAT | 67 PC |
| 1023782 | OUT | HEAT TREAT | 55 PC |
| 1023782 | OUT | HEAT TREAT | 22 PC |
| 1023782 | OUT | HEAT TREAT | 62 PC |
| 1023797 | OUT | PAINT | 62 PC |
| 1023797 | OUT | PAINT | 105 PC |
| 1023900 | OUT | PAINT | 80 PC |
| 1023900 | OUT | PAINT | 60 PC |
| 1023900 | OUT | PAINT | 125 PC |
| 1023923 | OUT | HEAT TRT | 40 PC |
| 1023924 | OUT | HEAT TREAT | 36 PC |
| 1023924 | OUT | HEAT TREAT | 40 PC |
| 1023924 | OUT | HEAT TREAT | 42 PC |
| 1023931 | OUT | PLATE | 58 PC |
| 1023931 | OUT | PLATE | 47 PC |
| 1023938 | OUT | OTHER | 26 PC |
| 1023938 | OUT | OTHER | 26 PC |
| 1023938 | OUT | OTHER | 26 PC |
| 1023938 | OUT | PAINT | 26 PC |
| 1023962 | / | G25033 | 148 PC |
| 1023963 | OUT | HEAT TREAT | 58 PC |
| 1023973 | OUT | PLATE | 57 PC |
| 1023977 | OUT | PLATE | 10 PC |
| 1023977 | OUT | PLATE | 10 PC |
| 1023977 | OUT | PLATE | 16 PC |
| 1024017 | OUT | SURF.FIN. | 25 PC |
| 1024017 | OUT | SURF.FIN. | 30 PC |
| 1024018 | OUT | PAINT | 20 PC |
| 1024106 | OUT | PLATE | 25 PC |
| 1024106 | OUT | PLATE | 22 PC |
| 1024130 | OUT | HEAT TREAT | 36 PC |
| 1024132 | OUT | HEAT TREAT | 20 PC |
| 1024348 | OUT | PAINT | 29 PC |
| 1024515 | OUT | PLATE | 21 PC |
| 1024531 | / | G32026 | 18 PC |
| 1024543 | OUT | PAINT | 2 PC |
| 1024543 | OUT | PAINT | 8 PC |
| 1024543 | OUT | PAINT | 8 PC |
| 1024554 | OUT | PAINT | 6 PC |
| 1024568 | OUT | PLATE | 10 PC |
| 1024604 | OUT | PAINT | 3 PC |
| 1024604 | OUT | PAINT | 14 PC |
| 1024611 | OUT | HEAT TREAT | 10 PC |
| 1024611 | OUT | HEAT TREAT | 31 PC |
| 1024614 | OUT | PAINT | 14 PC |
| 1024617 | OUT | HEAT TRT | 240 PC |
| 1024617 | OUT | HEAT TRT | 140 PC |
| 1024617 | OUT | HEAT TRT | 77 PC |

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|---|---|
| 1024627 OUT PAINT | 25 PC |
| 1024627 OUT PAINT | 17 PC |
| 1024630 OUT PAINT | 69 PC |
| 1024630 OUT PAINT | 68 PC |
| 1024630 OUT PAINT | 68 PC |
| 1024741 OUT PAINT | 20 PC |
| 1024811 OUT PAINT | 2 PC |
| 1024811 OUT PAINT | 6 PC |
| 1024811 OUT PAINT | 6 PC |
| 1024812 OUT PAINT | 5 PC |
| 1024812 OUT PAINT | 5 PC |
| 1024935 OUT HEAT TRT | 111 PC |
| 1024935 OUT HEAT TREAT | 92 PC |
| 1024958 OUT HEAT TRT | 60 PC |
| 1024958 OUT HEAT TRT | 75 PC |
| 1025069 OUT PAINT | 20 PC |
| 1025098 / G36059 | 9 PC |
| 1025098 OUT PAINT | 10 PC |
| 1025098 OUT PAINT | 7 PC |
| 1025098 OUT PAINT | 8 PC |
| 1025155 OUT PAINT | 19 PC |
| 1025447 OUT PAINT | 20 PC |
| 1025447 OUT PAINT | 40 PC |
| 1025447 OUT PAINT | 38 PC |
| 1025527 OUT PAINT | 8 PC |
| 1025527 OUT PAINT | 4 PC |
| 1025527 OUT PAINT | 8 PC |
| 1025527 OUT PAINT | 2 PC |
| 1025528 OUT SURF FIN | 20 PC |
| 1025562 | 12 PC |
| 1025562 OUT PAINT | 8 PC |
| 1025562 OUT PAINT | 15 PC |
| 1025562 OUT PAINT | 12 PC |
| 1025612 OUT PAINT | 6 PC |
| 1025769 OUT PAINT | 12 PC |
| 1025769 OUT PAINT | 25 PC |
| 1025852 OUT PLATE | 21 PC |
| 1025852 OUT PLATE | 32 PC |
| 1025852 OUT PLATE | 13 PC |
| 1025915 OUT SURF FIN | 40 PC |
| 1026115 OUT SURF.FIN. | 14 PC |
| 1026115 OUT SURF.FIN. | 18 PC |
| 1026156 OUT PAINT | 40 PC |
| 1026156 OUT PAINT | 25 PC |
| 1026156 OUT PAINT | 25 PC |
| 1026156 OUT PAINT | 50 PC |
| 1026169 OUT SURF.FIN. | 100 PC |
| 1026169 OUT SURF.FIN. | 50 PC |
| 1026173 OUT SURF.FIN. | 64 PC |
| 1026173 OUT SURF.FIN. | 66 PC |
| 1026173 OUT SURF.FIN. | 64 PC |
| 1026173 OUT SURF.FIN. | 64 PC |

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|---|---|---|---|
| 1026187 | OUT | PAINT | 12 PC |
| 1026194 | OUT | PAINT | 6 PC |
| 1026194 | OUT | PAINT | 15 PC |
| 1026208 | OUT | PAINT | 15 PC |
| 1026212 | OUT | SURF.FIN. | 52 PC |
| 1026223 | OUT | PAINT | 26 PC |
| 1026223 | OUT | PAINT | 24 PC |
| 1026233 | OUT | HEAT TREAT | 92 PC |
| 1026233 | OUT | HEAT TREAT | 94 PC |
| 1026233 | OUT | HEAT TREAT | 112 PC |
| 1026234 | OUT | HEAT TRT | 163 PC |
| 1026234 | OUT | HEAT TRT | 201 PC |
| 1026234 | OUT | HEAT TRT | 320 PC |
| 1026234 | OUT | HEAT TRT | 163 PC |
| 1026412 | OUT | PAINT | 15 PC |
| 1026412 | OUT | PAINT | 20 PC |
| 1026417 | OUT | PAINT | 29 PC |
| 1026417 | OUT | PAINT | 31 PC |
| 1026417 | OUT | PAINT | 20 PC |
| 1026450 | OUT | PLATE | 10 PC |
| 1026450 | OUT | PLATE | 10 PC |
| 1026531 | OUT | PAINT | 16 PC |
| 1026531 | OUT | PAINT | 25 PC |
| 1026531 | OUT | PAINT | 4 PC |
| 1026531 | OUT | PAINT | 60 PC |
| 1026531 | OUT | PAINT | 59 PC |
| 1026573 | OUT | PAINT | 20 PC |
| 1026573 | OUT | PAINT | 20 PC |
| 1026573 | OUT | PAINT | 30 PC |
| 1026573 | OUT | PAINT | 20 PC |
| 1026573 | OUT | PAINT | 45 PC |
| 1026574 | OUT | PAINT | 20 PC |
| 1026574 | OUT | PAINT | 18 PC |
| 1026574 | OUT | PAINT | 40 PC |
| 1026574 | OUT | PAINT | 19 PC |
| 1026574 | OUT | PAINT | 45 PC |
| 1026575 | OUT | PAINT | 23 PC |
| 1026575 | OUT | PAINT | 20 PC |
| 1026575 | OUT | PAINT | 20 PC |
| 1026575 | OUT | PAINT | 30 PC |
| 1026575 | OUT | PAINT | 41 PC |
| 1026581 | OUT | PAINT | 25 PC |
| 1026581 | OUT | PAINT | 40 PC |
| 1026594 | OUT | OTHER | 150 PC |
| 1026594 | OUT | OTHER | 100 PC |
| 1026594 | OUT | OTHER | 66 PC |
| 1026594 | OUT | OTHER | 184 PC |
| 1026594 | OUT | OTHER | 250 PC |
| 1026594 | OUT | OTHER | 100 PC |
| 1026594 | OUT | OTHER | 153 PC |
| 1026594 | OUT | OTHER | 97 PC |
| 1026692 | OUT | CALIBRATE | 2 PC |

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|---|---|---|---|
| 1026693 | OUT | CALIBRATE | 2 PC |
| 1026729 | OUT | PAINT | 20 PC |
| 1026729 | OUT | PAINT | 20 PC |
| 1026755 | OUT | PLATE | 85 PC |
| 1026755 | OUT | PLATE | 183 PC |
| 1026768 | OUT | PAINT | 47 PC |
| 1026768 | OUT | PAINT | 44 PC |
| 1026770 | OUT | PAINT | 48 PC |
| 1026829 | OUT | HEAT TREAT | 70 PC |
| 1026840 | OUT | HEAT TREAT | 52 PC |
| 1026840 | OUT | HEAT TREAT | 60 PC |
| 1026840 | OUT | HEAT TREAT | 45 PC |
| 1026840 | OUT | HEAT TREAT | 35 PC |
| 1026840 | OUT | HEAT TREAT | 35 PC |
| 1026840 | OUT | HEAT TREAT | 75 PC |
| 1026840 | OUT | HEAT TREAT | 50 PC |
| 1026841 | OUT | PAINT | 65 PC |
| 1026841 | OUT | PAINT | 65 PC |
| 1026841 | OUT | PAINT | 64 PC |
| 1026861 | OUT | PAINT | 9 PC |
| 1026861 | OUT | PAINT | 20 PC |
| 1026861 | OUT | PAINT | 20 PC |
| 1026873 | OUT | PAINT | 20 PC |
| 1026873 | OUT | PAINT | 14 PC |
| 1026875 | OUT | PAINT | 16 PC |
| 1026875 | OUT | PAINT | 20 PC |
| 1026876 | OUT | PAINT | 14 PC |
| 1026876 | OUT | PAINT | 28 PC |
| 1027011 | OUT | HEAT TREAT | 86 PC |
| 1027011 | OUT | HEAT TREAT | 84 PC |
| 1027011 | OUT | HEAT TREAT | 200 PC |
| 1027107 | OUT | HEAT-TREAT | 52 PC |
| 1027107 | OUT | HEAT-TREAT | 45 PC |
| 1027107 | OUT | HEAT-TREAT | 50 PC |
| 1027112 | OUT | PAINT | 5 PC |
| 1027112 | OUT | PAINT | 12 PC |
| 1027126 | OUT | HEAT-TREAT | 58 PC |
| 1027126 | OUT | HEAT-TREAT | 32 PC |
| 1027387 | OUT | HEAT-TREAT | 50 PC |
| 1027387 | OUT | HEAT-TREAT | 70 PC |
| 1027387 | OUT | HEAT-TREAT | 68 PC |
| 1027387 | OUT | HEAT-TREAT | 68 PC |
| 1027403 | OUT | HEAT TREAT | 40 PC |
| 1027403 | OUT | HEAT TREAT | 24 PC |
| 1027403 | OUT | HEAT TREAT | 60 PC |
| 1027403 | OUT | HEAT TREAT | 13 PC |
| 1027403 | OUT | HEAT TREAT | 30 PC |
| 1027404 | OUT | HEAT TREAT | 13 PC |
| 1027422 | OUT | SURF.FIN. | 53 PC |
| 1027422 | OUT | SURF.FIN. | 114 PC |
| 1027422 | OUT | SURF.FIN. | 95 PC |
| 1027587 | OUT | PAINT | 3 PC |

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|---|---|
| 1027589 OUT PAINT | 72 PC |
| 1027589 OUT PAINT | 34 PC |
| 1027589 OUT PAINT | 34 PC |
| 1027610 OUT HEAT-TREAT | 76 PC |
| 1027610 / G51736 | 13 PC |
| 1027610 OUT HEAT TREAT | 200 PC |
| 1028191 OUT PAINT | 24 PC |
| 1028205 OUT PLATE | 18 PC |
| 1028205 OUT PLATE | 9 PC |
| 1028205 OUT PLATE | 13 PC |
| 1028205 / G55866 | 29 PC |
| 1028332 OUT PAINT | 18 PC |
| 1028332 OUT PAINT | 13 PC |
| 1028332 OUT PAINT | 12 PC |
| 1029090 OUT HEAT-TREAT | 20 PC |
| 1029090 OUT HEAT-TREAT | 29 PC |
| 1029926 OUT HEAT TREAT | 100 PC |
| 1029926 OUT HEAT TREAT | 50 PC |
| 1029927 OUT HEAT TREAT | 100 PC |
| 1030613 OUT PLATE | 2 PC |
| 1032996 OUT HEAT-TREAT | 12 PC |
| 1033985 OUT SURF.FIN. | 2 PC |
| 1034161 OUT HEAT-TREAT | 10 PC |
| 1034939 OUT WELD | 5 PC |
| 1036428 OUT PLATE | 8 PC |
| 1036428 OUT PLATE | 7 PC |
| 1036428 OUT PLATE | 3 PC |
| 1037279 OUT HEAT-TREAT | 110 PC |
| 1037279 OUT SURFACE | 110 PC |
| 1037280 OUT HEAT-TREAT | 150 PC |
| 1037280 OUT SURFACE | 150 PC |
| 1037281 OUT HEAT-TREAT | 100 PC |
| 1037281 OUT SURFACE | 100 PC |
| 1038736 OUT HEAT-TREAT | 45 PC |
| 1038736 OUT SURFACE | 45 PC |
| 1038736 / G58245 | 45 PC |
| 1039214 OUT HEAT-TREAT | 10 PC |
| 1039214 OUT SURFACE | 13 PC |
| 1041380 OUT ANODIZE | 21 PC |
| 1041386 OUT ANODIZE | 19 PC |
| 1041468 OUT BLUE ANODIZE | 9 PC |
| 1041468--G58241 | 9 PC |
| 1041538 OUT BLUE ANODIZE | 10 PC |
| 1041538--G58242 | 10 PC |
| 1041539 OUT ANODIZE (BLUE) | 25 PC |
| 1042877 OUT ANODIZE | 17 PC |
| 2nd REPAIR OF DIE CASTING MOLD | 1 PC |
| BLUE ANODIZE | 1 PC |
| CASTING SET- UP CHARGE | 1 PC |
| CASTING SET UP CHARGE | 1 PC |
| ENVIRONMENTAL CHARGE | 1 PC |
| ENVIRONMENTAL CHARGE | 1 PC |

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|---|---|
| ENVIRONMENTAL CHARGE | 1 PC |
| ENVIRONMENTAL CHARGE | 1 PC |
| ENVIRONMENTAL CHARGE | 1 PC |
| ENVIRONMENTAL SURCHARGE | 1 PC |
| ENVIRONMENTAL SURCHARGE | 1 PC |
| ENVIRONMENTAL SURCHARGE | 1 PC |
| ENVIRONMENTAL SURCHARGES | 1 PC |
| MACHINING SET-UP CHARGE | 1 PC |
| MASTER MOLD SET-UP FEE | 1 PC |
| MASTER MOLD SET-UP FEE | 1 PC |
| METAL SURCHARGE | 1 PC |
| out paint | 26 PC |
| REPAIR DIE CASTING EJECTOR SLEEVE | 1 PC |
| REWORK SET-UP CHARGE | 1 PC |
| Set Up | 1 PC |
| SET UP | 1 PC |
| SET UP | 1 PC |
| SET UP CHARGE | 1 EA |
| SET UP CHARGE | 1 PC |
| SET UP CHARGE | 1 PC |
| SET UP CHARGE | 1 PC |
| SET UP CHARGE | 1 PC |
| set-up charge | 1 PC |
| SET-UP CHARGE | 1 PC |
| SET-UP CHARGE | 1 PC |
| SET-UP CHARGE | 1 PC |
| SET-UP CHARGE | 1 PC |
| SET-UP CHARGE | 1 PC |
| Steel Tool Room | 4 PC |
| 11E84 NUT M5 X .80MM X 4.0MM (5 QTY) PKG | 1 PAC |
| 3K145 DOOR LATCH ASSEMBLY PACKAGE | 3 PC |
| 3K248 AIR TUBE FITTING (MOTOR) PACKAGE | 5 PC |
| 3M331 STEM ASSEMBLY | 70 PC |
| 3M531 O-RING 2.234 X .139 (2 QTY) PKG | 2 PAC |
| 4E101 LIGHTER ASSEMBLY ROUND FILE | 28 PC |
| 4E51 COUNTERSHAFT BEARING RETAINER(REAR) | 7 PC |
| 4E52 COUNTERSHAFT PLUG | 5 PC |
| 4MP123 O-RING 1.2 MMX4MM BUNAN DURO70 5 | 1 PAC |
| 4MP123 O-RING 1.2 MMX4MM BUNAN DURO70 5 | 1 PAC |
| 4MP209 TETRASEAL RING 5.234 x.134 PKG | 2 PC |
| 4RC55 GAUGE-AIR PRESSURE 100PSI PACKAGE | 1 PC |
| 5K634 FRONT WIRE GUIDE 15GA | 10 PC |
| 5P164 RETAINING RING PLIERS PACKAGE | 2 PC |
| 5P184 O-RING .145 X .070 (5 QTY) PACKAGE | 114 PAC |
| 5P186 VALVE BLOCK ASSEMBLY | 3 PC |
| 6C101 POTENTIOMETER PACKAGE | 3 PC |
| SHAFT SPRING | 2 PC |
| 6RG875 SCREW 8-32 X .736 PACKAGE | 17 PC |
| 7M55 INSULATOR FRONT ASSY | 5 PC |
| 7M601 ELECTRODE(-NEG) HOSE ELBOW FITTING | 12 PC |
| 7MC622 WATER SUPPLY HOSE ASSEMBLY | 2 PC |
| 8E30 PIVOT PIN ASSEMBLY (CARRIER ROLL) | 6 PC |

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|---|---|
| B1514-350 1/2X6 ERTALYTE PET-P | 20 FT |
| B1520-320 1/2 " ERTALYTE TX" | 87 FT |
| DJ623 HOSE ASSY SUPPLY AIR 25FT | 1 PC |
| G03117 SEAL SHAFT DIA.375 OD.756 W.25 | 71 PC |
| G06137 WRENCH PIN .254D | 75 PC |
| G06137 WRENCH PIN .254D | 77 PC |
| G06137 WRENCH PIN .254D | 75 PC |
| G06272 INSULATOR 3/4D NYLON | 15 PC |
| G06272 INSULATOR 3/4D NYLON | 23 PC |
| G06272 INSULATOR 3/4D NYLON | 28 PC |
| G06272 INSULATOR 3/4D NYLON | 20 PC |
| G06399 CAM FOLLOWER | 150 PC |
| G06827 STUD TOOL POST 1/4-20X1.250 L SS | 20 PC |
| G06827 STUD TOOL POST 1/4-20X1.250 L SS | 20 PC |
| G06827 STUD TOOL POST 1/4-20X1.250 L SS | 20 PC |
| G09149 AIR RISER SLEEVE (1-27/32) | 150 PC |
| G09150 BUSHING (.654 I.D. X .690 OD) | 100 PC |
| G09244 MOUNTING STUD 1-5/8" LONG (14E) | 80 PC |
| G09284 SPACER WASHER ID1/8 " X 7/16 | 400 PC |
| G09357 BUSHING 1/8 NOZZLE STL | 340 PC |
| G09357 BUSHING 1/8 NOZZLE STL | 925 PC |
| G09357 BUSHING 1/8 NOZZLE STL | 1,000 PC |
| G09357 BUSHING 1/8 NOZZLE STL | 1,050 PC |
| BUSHING .060 I.D. X .097 OD | 500 PC |
| BUSHING .060 I.D. X .097 OD | 524 PC |
| BUSHING .060 I.D. X .097 OD | 500 PC |
| BUSHING .060 I.D. X .097 OD | 585 PC |
| G09739 EXTENSION HEAD-ANGULAR 80 | 14 PC |
| G09743 TUBE AIR 1.0 X .035 X18-21/32 AL. | 16 PC |
| DOWEL PIN 3/16 L X .0628 OD ST | 150 PC |
| G09780 GAS CONNECTING TUBE 3/32 ID x .50 | 160 PC |
| G09806 AIR TUBE 6-29/32 x 3/16OD BRS | 10 PC |
| G09806 AIR TUBE 6-29/32 x 3/16OD BRS | 11 PC |
| G09808 GAS TUBE 3/16 OD x 6-29/32L BRS | 55 PC |
| G10130 BOX ALUM 3-1/4 x 5-1/4 x 2-1/4 | 20 PC |
| DISC BRAKE 2.437 DIA | 275 PC |
| G10879 GAS TUBE - 6 " | 85 PC |
| G10880 WIRE TUBE - 6 " | 25 PC |
| G10880 WIRE TUBE - 6 " | 25 PC |
| G10880 WIRE TUBE - 6 " | 25 PC |
| G10953 COUPLING BRS 1.125 x 1/2 (3M562) | 12 PC |
| G11017 VALVE HANDLE | 50 PC |
| G11017 VALVE HANDLE | 50 PC |
| G11017 VALVE HANDLE | 50 PC |
| G11076 BUSHING (3/16" WIRE NOZZLE) | 250 PC |
| G11076 BUSHING (3/16" WIRE NOZZLE) | 505 PC |
| G11076 BUSHING (3/16" WIRE NOZZLE) | 750 PC |
| G11076 BUSHING (3/16" WIRE NOZZLE) | 562 PC |
| G11084 CONN BLOCK 2 HOSE 3/8-24X3/8-24 | 32 PC |
| G11350 ROLLER | 27 PC |
| G11350 ROLLER | 175 PC |
| G11711 NUT 9/16 HEX7/16-20X 9/64 TH S.S. | 47 PC |

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|---|---|
| G11711 NUT 9/16 HEX7/16-20X 9/64 TH S.S. | 110 PC |
| G11711 NUT 9/16 HEX7/16-20X 9/64 TH S.S. | 140 PC |
| G11711 NUT 9/16 HEX7/16-20X 9/64 TH S.S. | 250 PC |
| G11711 NUT 9/16 HEX7/16-20X 9/64 TH S.S. | 250 PC |
| G12503 STEM, 3/8" DIA. BAR SIZE x 3/4" L | 63 PC |
| G12744 ADAPTER 7/16BAR STOCK X 15/16 | 31 PC |
| G12896 ADPT .352 X.812 X 5/8 TUBE BRZ | 22 PC |
| G13120 SCREW 8-32 X 1/4 SLOT FIL HD | 150 PC |
| G13196 TIP 7/16 BAR STOCK X 15/64"L S.S. | 17 PC |
| G13197 JET TUBE 1/4 "OD TUBE X 3-3/4 | 17 PC |
| G13324 POWDER PORT (4MBT) | 5 PC |
| G13697 PORT POWDER #3 | 22 PC |
| G14359 PORT POWDER #4. | 93 PC |
| G14754 REAR INSULATOR 31/64 ID | 17 PC |
| G14851 ELECTRODE HOLDER EXTENSION | 10 PC |
| G14851 ELECTRODE HOLDER EXTENSION | 10 PC |
| G14900 POWDER PORT #5 (3MB) | 234 PC |
| G14928 SCREW 8-32 X 5/32 SHLD SLOT HD | 50 PC |
| G14930 WATER TUBE 3/8D x .042 WALL BRS | 22 PC |
| G14981 JUNCTION BOX | 6 PC |
| G14981 JUNCTION BOX | 6 PC |
| G14981 JUNCTION BOX | 12 PC |
| G15048 COVER GASKET AND SCREWS | 10 PC |
| G15889 TAG - YELLOW CAUTION | 2,750 PC |
| G15958 TUBE | 55 PC |
| G20296 SCREW 10-32 X 3/16 HEX SOC HD STL | 250 PC |
| G21338 BUSHING .785 I.D. X .975 OD | 25 PC |
| G21404 SEE MANUAL-STOP LEGEND | 500 PC |
| G21606 VALVE BLOCK | 52 PC |
| G22478 SCREW 1/4-20 X 9/16(ELECT HOLDER) | 40 PC |
| G24674 HEAD GAS SUBASSY 12E | 72 PC |
| G24748 ELECTRODE PULLER PLIERS | 26 PC |
| G25094 BODY VALVE CORE | 163 PC |
| G25258 AIR TUBE 1 FT | 22 PC |
| G25258 AIR TUBE 1 FT | 22 PC |
| G25262 GAS TUBE, 1 FT EXTENSION. | 26 PC |
| G25262 GAS TUBE, 1 FT EXTENSION. | 33 PC |
| G25263 GAS TUBE 21-23/32 x 3/16D BRS | 55 PC |
| G25715 BUSHING (1/8 WIRE NOZZLE) | 2,556 PC |
| G25715 BUSHING (1/8 WIRE NOZZLE) | 2,600 PC |
| G25715 BUSHING (1/8 WIRE NOZZLE) | 2,500 PC |
| G25715 BUSHING (1/8 WIRE NOZZLE) | 2,500 PC |
| G25715 BUSHING (1/8 WIRE NOZZLE) | 2,590 PC |
| G25959 BUSHING .1918 I.D. X .219 OD S | 506 PC |
| G25959 BUSHING .1918 I.D. X .219 OD S | 500 PC |
| G25959 BUSHING .1918 I.D. X .219 OD S | 160 PC |
| G25959 BUSHING .1918 I.D. X .219 OD S | 540 PC |
| G26419 HANDLE VALVE | 150 PC |
| G26419 HANDLE VALVE | 150 PC |
| G26419 HANDLE VALVE | 150 PC |
| STRAINER SCREEN | 15 PC |
| G28160 HOSE FITTING 5/8-18 X 7/8-14-10MB | 28 PC |

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|---|---|
| BUSHING ID .884 X OD 1" | 30 PC |
| BUSHING ID .884 X OD 1" | 34 PC |
| BUSHING ID .884 X OD 1" | 34 PC |
| BUSHING ID .884 X OD 1" | 34 PC |
| G29505 BUSHING ID .884 X OD 1" | 50 PC |
| G29509 ELECTRODE HOLDER TIP | 204 PC |
| G29509 ELECTRODE HOLDER TIP | 300 PC |
| G30230 CHECK VALVE HOUSING BRS (10MB) | 55 PC |
| G30883 FRONT GUN BODY | 16 PC |
| G30883 FRONT GUN BODY | 16 PC |
| G30977 PLUG, .3475" DIA. x .203 | 31 PC |
| G30977 PLUG, .3475" DIA. x .203 | 50 PC |
| BUSHING .884 I.D. X 1" | 150 PC |
| BUSHING .884 I.D. X 1" | 150 PC |
| G31101 BUSHING .884 I.D. X 1" | 150 PC |
| G31101 BUSHING .884 I.D. X 1" | 150 PC |
| G31130 BUSHING (ARGON 2 JET) | 200 PC |
| G31130 BUSHING (ARGON 2 JET) | 223 PC |
| G32013 FRONT GUN BODY TUBE 3/8OD Cu | 30 PC |
| G32017 CONNECTING BLOCK AIR HOSE FITTING | 17 PC |
| G32021 INSULATOR RING | 50 PC |
| G32021 INSULATOR RING | 30 PC |
| G32032 REAR GUN BODY TUBE 24.06x1/4D Cu | 23 PC |
| G32048 INSERT INSULATOR DELRIN | 11 PC |
| G32048 INSERT INSULATOR DELRIN | 10 PC |
| G32048 INSERT INSULATOR DELRIN | 14 PC |
| G32048 INSERT INSULATOR DELRIN | 12 PC |
| G32061 COVER RETAINER (11MB) | 10 PC |
| INSERT 19/16-24M X 3/8 L X M5-.8F ST.STL | 50 PC |
| NAME PLATE 11MB | 25 PC |
| G32072 INSULATOR RING 2 D x 2-1/8 DELRIN | 22 PC |
| G32073 GASKET COVER 1.57 I.D. | 50 PC |
| G32139 BUSHING .095 I.D. X .160 OD STL | 230 PC |
| G32139 BUSHING .095 I.D. X .160 OD STL | 770 PC |
| G32139 BUSHING .095 I.D. X .160 OD STL | 1,257 PC |
| G32139 BUSHING .095 I.D. X .160 OD STL | 800 PC |
| G32139 BUSHING .095 I.D. X .160 OD STL | 910 PC |
| SCREW JET 4-40 X .212 ST.STL | 50 PC |
| G32350 HOUSING | 14 PC |
| G32989 FILTER HOPPER BASE | 250 PC |
| G32989 FILTER HOPPER BASE | 250 PC |
| G32989 FILTER HOPPER BASE | 250 PC |
| G32989 FILTER HOPPER BASE | 250 PC |
| G32989 FILTER HOPPER BASE | 250 PC |
| G32989 FILTER HOPPER BASE | 250 PC |
| G33288 EXTERNAL POWDER PORT | 50 PC |
| G33288 EXTERNAL POWDER PORT | 60 PC |
| G33288 EXTERNAL POWDER PORT | 50 PC |
| G34029 HOSE FITTING BARBED 1/8 | 25 PC |
| G34222 ELECTRODE TUBE (10MB) | 8 PC |
| G34222 ELECTRODE TUBE (10MB) | 7 PC |
| G34412 PLUG .3437DIA x .307LONG ALUM | 150 PC |

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| G34412 PLUG .3437DIA x .307LONG ALUM | 200 PC |
| G34423 METRIC INSERT M4 | 1,000 PC |
| METRIC INSERT M4 | 500 PC |
| G34432 HEAT TRT | 92 PC |
| G34461 GEAR HELICAL .559 O.D. | 45 PC |
| G34509 DUAL POWDER PORT CLAMP | 11 PC |
| G34509 DUAL POWDER PORT CLAMP | 10 PC |
| G34659 PLUG INSULATOR 1/2-20 (10MB) | 11 PC |
| G34659 PLUG INSULATOR 1/2-20 (10MB) | 22 PC |
| G36524 SCREW 10-24 X 1-5/8L X 3/4(THUMB) | 44 PC |
| G36763 SCREW INSULATOR 1/2-20 (10MB) | 103 PC |
| G36873 HANDLE ASSEMBLY | 14 PC |
| G37386 SEAT 1/4in OD ST STL | 30 PC |
| G37388 Coupling | 42 PC |
| G37388 Coupling | 42 PC |
| G37388 Coupling | 42 PC |
| G37388 Coupling | 42 PC |
| G39569 WIRE GUIDE (STRAIGHTENER) | 16 PC |
| G39633 GAGE SUPPORT PLATE (4MP) | 25 PC |
| G39633 GAGE SUPPORT PLATE (4MP) | 65 PC |
| G39885 SCREW 1/4-20 X 7/8 HEX SOC STL | 75 PC |
| G39885 SCREW 1/4-20 X 7/8 HEX SOC STL | 150 PC |
| G40535 POWDER FEED FITTING ADAPTER | 50 PC |
| G40535 POWDER FEED FITTING ADAPTER | 50 PC |
| G40535 POWDER FEED FITTING ADAPTER | 100 PC |
| G40857 POWDER TUBE | 57 PC |
| G40857 POWDER TUBE | 50 PC |
| G40857 POWDER TUBE | 50 PC |
| G42260 VIBRATOR | 75 PC |
| G42260 VIBRATOR | 75 PC |
| G42260 VIBRATOR | 75 PC |
| G42260 VIBRATOR | 75 PC |
| G42537 TOOL REMOVAL HANDLE | 11 PC |
| OPTIC CABLE 0'-12" | 5 PC |
| SCREW 8-32 X 7/8 SLOT FIL HD ST.STL | 75 PC |
| G43107 HANDLE 3MB-II | 6 PC |
| G43107 HANDLE 3MB-II | 25 PC |
| G44208 RING HOPPER SUPPORT | 29 PC |
| G44262 DISTRIBUTION RING-NITROGEN | 22 PC |
| G44262 DISTRIBUTION RING-NITROGEN | 22 PC |
| G44828 INSULATOR PLATE (DJ-A GUN) | 12 PC |
| DOWEL PIN, OD. .1251 " x LEN | 50 PC |
| G45768 ELECTRODE HOLDER TIP | 52 PC |
| G46154 PLUG .1875 DIA. x .114 STL (3MB) | 100 PC |
| G46742 CLAMP-POWDER PORT BRNZ (3MB-II) | 16 PC |
| COVER | 30 PC |
| COVER | 30 PC |
| G46836 ENCLOSURE 5K/5KCE | 25 PC |
| G46939 SCREEN METAL | 110 PC |
| G46939 SCREEN METAL | 110 PC |
| G47217 TOOL POST INSULATOR | 11 PC |
| G47217 TOOL POST INSULATOR | 23 PC |

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| G47219 INSULATOR (3MB-II) | 11 PC |
| G47219 INSULATOR (3MB-II) | 23 PC |
| G47322 INSERT 8-32UNC OBSOLETE | 150 PC |
| VALVE NEEDLE VALVE KNOB | 20 PC |
| SET PLUG .3428D X .300L | 50 PC |
| G47685 TUBE | 275 PC |
| G47685 TUBE | 245 PC |
| G47685 TUBE | 250 PC |
| G47685 TUBE | 257 PC |
| G47685 TUBE | 282 PC |
| G47685 TUBE | 266 PC |
| G47790 MOUNTING STUD | 50 PC |
| G47948 SHELL #8 ASSEMBLY | 271 PC |
| PLUG 3/8 NPT | 150 PC |
| PLUG 3/8 NPT | 150 PC |
| G48712 RING DISTRIBUTION | 16 PC |
| G49051 TUBE | 266 PC |
| G49051 TUBE | 261 PC |
| G49051 TUBE | 250 PC |
| G49051 TUBE | 280 PC |
| G49051 TUBE | 263 PC |
| G49051 TUBE | 268 PC |
| AIR CAP BODY | 16 PC |
| G49412 INSERT #9 .890 L X .068 OD BRS | 1,300 PC |
| G49412 INSERT #9 .890 L X .068 OD BRS | 1,300 PC |
| G49412 INSERT #9 .890 L X .068 OD BRS | 1,300 PC |
| DJ2701 AIR CAP 9/32 PROPYLENE | 86 PC |
| G49414 AIR CAP 9/32 PROPYLENE | 85 PC |
| INSERT TUBE 2.187 L X .4093 OD TUNGSTEN | 26 PC |
| G50730 LEGEND WARNING-ELEC. MULTILINGUAL | 100 PC |
| G50730 LEGEND WARNING-ELEC. MULTILINGUAL | 100 PC |
| GEAR SPIRAL MITER RH 1PD 18DP | 50 PC |
| G50831 GEAR SPIRAL MITER LH 1 PD 18DP | 49 PC |
| G50831 GEAR SPIRAL MITER LH 1 PD 18DP | 105 PC |
| G50908 SHAFT | 100 PC |
| G51171 BODY VALVE | 12 PC |
| BARBED ID. 24 | 20 PC |
| G51376 PLUG SET 13/32D x 23/64L ST STL | 150 PC |
| G51376 PLUG SET 13/32D x 23/64L ST STL | 150 PC |
| G51376 PLUG SET 13/32D x 23/64L ST STL | 150 PC |
| G51376 PLUG SET 13/32D x 23/64L ST STL | 150 PC |
| BEARING .252 X .439 X .500 BRONZE | 182 PC |
| BEARING .252 X .439 X .500 BRONZE | 100 PC |
| BEARING .252 X .439 X .500 BRONZE | 200 PC |
| SPRING .21 X 1/2 " 4LBS" | 100 PC |
| SPRING .21 X 1/2 " 4LBS" | 100 PC |
| G51451 NUT 3/8 OD TUBE X 11/16 HEX BRS | 100 PC |
| NUT 3/8 OD TUBE X 11/16 HEX BRS | 35 PC |
| NUT 3/8 OD TUBE X 11/16 HEX BRS | 35 PC |
| FERRULE FRONT 3/8 OD TUBE BRS | 35 PC |
| FERRULE FRONT 3/8 OD TUBE BRS | 35 PC |
| G51452 FRONT FERRULE 3/8 OD TUBE BRS | 100 PC |

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:ENV COMP & CTRL/FACL ( FEB 24 '94 09:55AM )

| DATE | START TIME | REMOTE TERMINAL IDENTIFICATION | MODE | TIME | RESULTS | TOTAL PAGES | DEPT. CODE | FILE NO. |
|---|---|---|---|---|---|---|---|---|
| FEB 02 | 11:21AM | ENVIRONMENTAL H&S | G3ESR | 00'46" | OK | 02 | | |
| | 11:25AM | 516 789 9064 | G3ST | 00'41" | OK | 01 | 0837 | |
| | 12:55PM | 5162497610 | G3ST | 01'32" | OK | 03 | 0569 | |
| FEB 03 | 02:35PM | 2074875842 219031281 | G3EST | 04'15" | OK | 10 | 0837 | |
| | 02:59PM | 5162497610 | G3ST | 02'28" | OK | 04 | 0569 | |
| FEB 04 | 11:18AM | METCO INC | G3EST | 00'40" | OK | 02 | 0569 | |
| | 12:24PM | ADT-SECURITY564 9575 | G3EST | 00'58" | OK | 02 | 0837 | |
| | 02:33PM | IPCO GARDINER | G3ST | 01'46" | OK | 04 | 0837 | |
| FEB 07 | 10:43AM | | G3ESR | 00'57" | OK | 01 | | |
| | 11:21AM | 203 762 1557 | G3EST | 00'40" | OK | 02 | 0837 | |
| FEB 08 | 01:12PM | | G3SR | 01'01" | OK | 01 | | |
| | 03:22PM | ENVIR0N_HYGIENE_INC. | G3SR | 02'33" | OK | 01 | | |
| | 03:26PM | ENVIR0N_HYGIENE_INC. | G3SR | 00'40" | OK | 01 | | |
| | 03:27PM | ENVIR0N_HYGIENE_INC. | G3SR | 01'15" | OK | 01 | | |
| FEB 09 | 11:58AM | | G3EDR | 06'54" | OK | 07 | | |
| FEB 10 | 10:25AM | | G3SR | 01'31" | OK | 03 | | |
| | 11:24AM | 516 227 1126 | G3ESR | 00'49" | OK | 01 | | |
| | 12:34PM | 203 643 8429 | G3ST | 01'09" | OK | 02 | 0837 | |
| | 03:43PM | 919 767 5229 | G3ST | 03'58" | OK | 09 | 0837 | |
| FEB 14 | 12:39PM | 6036668143 | G3ST | 04'03" | OK | 09 | 0837 | |
| FEB 15 | 12:13PM | | G3SR | 01'32" | OK | 03 | | |
| | 02:16PM | OLSTEN CORP | G3ST | 01'20" | OK | 02 | 0569 | |
| FEB 16 | 10:54AM | 506 412943 | G3EST | 00'28" | OK | 01 | 0525 | |
| | 04:18PM | | G3ESR | 00'50" | OK | 02 | | |
| | 05:16PM | | G3ESR | 03'55" | OK | 09 | | |
| FEB 18 | 02:29PM | 2192681101 | G3ST | 02'51" | OK | 05 | 0837 | |
| | 03:06PM | | G3ESR | 03'27" | OK | 07 | | |
| | 05:16PM | 2039658226 | G3ST | 01'09" | OK | 02 | 0569 | |
| FEB 22 | 12:54PM | 202 219 3085 | G3ESR | 01'37" | OK | 03 | | |
| | 03:52PM | 804 396 0410 | G3ST | 01'46" | OK | 04 | 0837 | |
| | 04:36PM | FRE COMPOSITES | G3EST | 02'15" | OK | 05 | 0837 | |
| FEB 23 | 12:01PM | ENVIRONMENTAL H&S | G3ST | 04'04" | OK | 05 | 0837 | |
| | 01:16PM | | G3ST | 01'15" | OK | 02 | 0569 | |
| FEB 24 | 08:02AM | 5666166 | G3ST | 01'14" | OK | 02 | 0837 | |
| | 09:52AM | | G3ST | 02'45" | OK | 04 | 0569 | |

TX:003993 RX:001433

**ADF SYSTEMS, LTD.**
**P.O. Box 278**
**Humboldt, IA 50548**
**(515) 332-5400**

PRODUCT NAME: **PC EXTRA**

# MATERIAL SAFETY DATA SHEET ESSENTIALLY SIMILAR TO OSHA-20

NE = NOT ESTABLISHED NA = NOT APPLICABLE

## SECTION 1 - GENERAL INFORMATION

CHEMICAL FAMILY: Alkaline Cleaner

HAZARD CLASSIFICATION: Not regulated

SHIPPING NAME: Not regulated, use product name.

HAZARD SIGNALS:

HEALTH 1 INSTABILITY 0

FIRE 0 OTHER

(0 = insignificant; 1 = slight; 2 = moderate 3 = high; 4 = extreme. Describes short term hazards only)

## SECTION 2 - HAZARDOUS INGREDIENTS

| HAZARDOUS COMPONENTS | CAS # | TLV | OSHA PEL | Section 313? | % (optional) |
|---|---|---|---|---|---|
| Sodium metasilicate | 6834-92-0 | 2mg/$m^3$ | 2mg/$m^3$ | no | <50% |

## SECTION 3 - PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling point | NA. | Vapor pressure | NA. |
| Specific gravity | NA. | Vapor density | NA. |
| Percent volatile | NA. | Evaporation rate | NA. |
| Solubility in water | complete | | |
| Appearance and odor | dedusted granular white solid, essentially odorless | | |

## SECTION 4 - FIRE AND EXPLOSION

FLASH POINT(temp at which it gives off combustible vapors) n.a.

Flammable limits– lower: n.a.

Flammable limits– upper: n.a.

EXTINGUISHING MEDIA: No restrictions. (Product dissolves in water)

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus. Use protective clothing to avoid skin contact with product.

UNUSUAL FIRE & EXPLOSION HAZARDS: None (non-combustible solid)

## SECTION 5 - REACTIVITY DATA

STABLE: yes conditions to avoid: none.

INCOMPATIBILITY: Strong acids and oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: oxides of carbon

HAZARDOUS POLYMERIZATION: will not occur.

Date Prepared: September 29, 1991

Date printed September 29, 1991

## SECTION 6 - HEALTH HAZARD DATA

Threshold limit value: NA. (blended product)

Health hazards - Chronic unknown.

This product has not been identified as a carcinogen or probable carcinogen by: NTP, IARC Monographs, or OSHA.

Medical conditions generally aggravated by exposure: unknown

EFFECTS OF OVEREXPOSURE

EYES Burns

SKIN possible irritation or burns upon prolonged contact.

INHALATION (of dust) irritation of nose and throat. Note, inhalation of dust is an unlikely route of exposure. The product is dedusted and non-volatile.

INGESTION Burns of mouth and mucous membranes.

EMERGENCY AND FIRST AID PROCEDURES

EYES Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if applicable. Contact a physician.

SKIN Rinse thoroughly with water. Contact a physician if irritation persists.

INHALATION Remove to fresh air. If breathing dificulties occur seek medical attention.

INGESTION Drink large quantities of milk or water. Do not induce vomiting. Call a physician. (MEDICAL EMERGENCY HOTLINE NUMBER AT TOP OF THIS FORM)

## SECTION 7 - PROTECTIVE EQUIPMENT

RESPIRATOR TYPE: none normally required.

VENTILATION Use with adequate ventilation to avoid breathing dust. (product is dedusted). Avoid breathing concentrated mists or sprays.

EYE PROTECTION safety goggles and/or face shield where conditions warrant.

PROTECTIVE GLOVES rubber gauntlet type.

OTHER PROTECTIVE EQUIPMENT Eyewash stations. Rubber protective clothing as required to avoid prolonged or repeated skin contact.

## SECTION 8-PRECAUTIONS FOR HANDLING AND USE

HANDLING AND STORING:Incidental contact with this product normally causes no harm. However, as with any industrial cleaner, some basic safety measures should be observed. Guard against ingestion of dusts, etc. and wash thoroughly after handling. Do not get in eyes, on skin, or leave on clothing.

OTHER PRECAUTIONS: Store in a cool dry , place away from sources of contamination. Keep container closed to avoid caking or contamination.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up or shovel spills and contain for possible re-use.

WASTE DISPOSAL METHODS : Dispose of waste as allowed by local, state and federal regulations.

DISCLAIMER: The above information is, to the best of our knowledge, current, accurate, and complete based on information reasonably available to us as of the date of preparation of this form. However, it is the user's responsibility to determine the safety, toxicity and suitability for his or her own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by us as to the effects of such use or on the safety or toxicity of this product. Nor do we assume any liability arising out of use by others of the product. Nor is the information herein to be construed as absolutely complete, since additional information may be necessary or desirable when exceptional conditions or circumstances exist or because of applicable laws or regulations.

| | | |
|---|---|---|
| Prepared by | WRC/CBG | //14RMODIF |
| Supersedes Previous Shee. | yes: September 10, 1991 | |
| Date Prepared: | September 29, 1991 | |
| Date printed | September 29, 1991 | |

ADF CHEMICALS

# PC EXTRA

**PC EXTRA** is a biodegradable, non-caustic detergent designed for use in ADF parts washers. This alkaline detergent contains a unique blend of surfactants that provide a low foaming cleaner that is very effective in removing grease, oil, and other types of contamination. **PC EXTRA** is recommended for use on steel, stainless steel, brass, aluminum, and copper parts.

**PC EXTRA** contains a rust inhibitor to provide in-process protection of steel parts and inhibit darkening of brass parts. If your mixture does not provide sufficient rust inhibiting, use a stronger mix.

**DIRECTIONS FOR USE:** Mixing concentrations will vary with the cleaning requirements. For a light to medium grease or oil buildup, such as cutting and manufacturing oil on new parts, use 1 to 3 ounces of detergent per gallon of water in the cleaning solution tank. For parts with heavy layers of dirt and grease, such as automotive parts, use 3 to 9 ounces of detergent per gallon of water.

It is recommended that **PC EXTRA** be premixed for faster and more consistent dissolving into a solution. Warm water further aids this process.

**CAUTION:** Contains sodium metasilicate. Harmful if swallowed or splashed in eyes.

**FIRST AID:** If swallowed, do not induce vomiting. Drink large quantities of water and call physician immediately. If splashed in eyes, flush with water for at least 15 minutes and call physician immediately. Avoid prolonged or repeated contact with skin.

FOR INDUSTRIAL USE ONLY
**CAUTION**
KEEP OUT OF REACH OF CHILDREN

| PART NO. | DESCRIPTION |
|---|---|
| 552102 | PC EXTRA 20# |
| 552103 | PC EXTRA 45# |
| 552105 | PC EXTRA 450# |

MADE IN U.S.A.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: NYD131318651
2. Page 1 of 1
3. Emergency Response Phone: (908) 334-0710
4. Manifest Tracking Number: 001028640 JJK

5. Generator's Name and Mailing Address: SULZER METCO US INC
1101 PROSPECT AVE
WESTBURY, NY 11590
Generator's Phone: (516) 338-2417

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: CLEAN VENTURE INC.
U.S. EPA ID Number: NJ0000027195

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Waste Control Specialists, LLC
9998 W. Hwy 176
Andrew, TX 79714
Facility's Phone: (575) 394-4300
U.S. EPA ID Number: TXD988088464

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes |
|---|---|---|---|---|---|---|
| X | 1. RADIOACTIVE MATERIAL EXCEPTED PACKAGE LIMITED QUANTITY OF MATERIAL 7 UN2910 ERG# 161 | 24 | C F | 23000 | P | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

14. Special Handling Instructions and Additional Information: 945948/-1/67783/235660 (1)DIRECT-53 NORM waste WCS Profile Number: WP-019571 CCI PO number: 52184
seal OB 0062949

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Jim Kourkoumelis
Signature:
Month 09 Day 02 Year 08

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Kevin J Gross
Signature:
Month 9 Day 2 Year 08

Transporter 2 Printed/Typed Name: X
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| | | | |

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

**GENERATOR'S INITIAL COPY**

## U.S. EPA Form 8700-22

Read all instructions before completing this form.

1. This form has been designed for use on a 12-pitch (elite) typewriter which is also compatible with standard computer printers; a firm point pen may also be used—press down hard.
2. Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, and disposal facilities to complete this form (EPA Form 8700–22) and, if necessary, the continuation sheet (EPA Form 8700–22A) for both inter- and intrastate transportation of hazardous waste.

Public reporting burden for this collection of information is estimated to average: 30 minutes for generators, 10 minutes for transporters, and 25 minutes for owners or operators of treatment, storage, and disposal facilities. This includes time for reviewing instructions, gathering data, completing, reviewing and transmitting the form. Any correspondence regarding the PRA burden statement for the manifest must be sent to the Director of the Collection Strategies Division in EPA's Office of Information Collection at the following address: U.S. Environmental Protection Agency (2822T); 1200 Pennsylvania Ave., NW., Washington, DC 20460. Do not send the completed form to this address.

### I. Instructions for Generators

*Item 1. Generator's U.S. EPA Identification Number*

Enter the generator's U.S. EPA twelve digit identification number, or the State generator identification number if the generator site does not have an EPA identification number.

*Item 2. Page 1 of ___*

Enter the total number of pages used to complete this Manifest (*i.e.*, the first page (EPA Form 8700-22) plus the number of Continuation Sheets (EPA Form 8700-22A), if any).

*Item 3. Emergency Response Phone Number*

Enter a phone number for which emergency response information can be obtained in the event of an incident during transportation. The emergency response phone number must:

1. Be the number of the generator or the number of an agency or organization who is capable of and accepts responsibility for providing detailed information about the shipment;
2. Reach a phone that is monitored 24 hours a day at all times the waste is in transportation (including transportation related storage); and
3. Reach someone who is either knowledgeable of the hazardous waste being shipped and has comprehensive emergency response and spill cleanup/incident mitigation information for the material being shipped or has immediate access to a person who has that knowledge and information about the shipment.

**Note:** Emergency Response phone number information should only be entered in Item 3 when there is one phone number that applies to all the waste materials described in Item 9b. If a situation (*e.g.*, consolidated shipments) arises where more than one Emergency Response phone number applies to the various wastes listed on the manifest, the phone numbers associated with each specific material should be entered after its description in Item 9b.

*Item 4. Manifest Tracking Number*

This unique tracking number must be pre-printed on the manifest by the forms printer.

*Item 5. Generator's Mailing Address, Phone Number and Site Address*

Enter the name of the generator, the mailing address to which the completed manifest signed by the designated facility should be mailed, and the generator's telephone number. Note, the telephone number (including area code) should be the normal business number for the generator, or the number where the generator or his authorized agent may be reached to provide instructions in the event the designated and/or alternate (if any) facility rejects some or all of the shipment. Also enter the physical site address from which the shipment originates only if this address is different than the mailing address.

*Item 6. Transporter 1 Company Name, and U.S. EPA ID Number*

Enter the company name and U.S. EPA ID number of the first transporter who will transport the waste. Vehicle or driver information may not be entered here.

*Item 7. Transporter 2 Company Name and U.S. EPA ID Number*

If applicable, enter the company name and U.S. EPA ID number of the second transporter who will transport the waste. Vehicle or driver information may not be entered here.

If more than two transporters are needed, use a Continuation Sheet(s) (EPA Form 8700-22A).

*Item 8. Designated Facility Name, Site Address, and U.S. EPA ID Number*

Enter the company name and site address of the facility designated to receive the waste listed on this manifest. Also enter the facility's phone number and the U.S. EPA twelve digit identification number of the facility.

*Item 9. U.S. DOT Description (Including Proper Shipping Name, Hazard Class or Division, Identification Number, and Packing Group)*

*Item 9a.* If the wastes identified in Item 9b consist of both hazardous and nonhazardous materials, then identify the hazardous materials by entering an "X" in this Item next to the corresponding hazardous material identified in Item 9b.

*Item 9b.* Enter the U.S. DOT Proper Shipping Name, Hazard Class or Division, Identification Number (UN/NA) and Packing Group for each waste as identified in 49 CFR 172. Include technical name(s) and reportable quantity references, if applicable.

**Note:** If additional space is needed for waste descriptions, enter these additional descriptions in Item 27 on the Continuation Sheet (EPA Form 8700-22A). Also, if more than one Emergency Response phone number applies to the various wastes described in either Item 9b or Item 27, enter applicable Emergency Response phone numbers immediately following the shipping descriptions for those Items.

*Item 10. Containers (Number and Type)*

Enter the number of containers for each waste and the appropriate abbreviation from Table I (below) for the type of container.

TABLE I.--TYPES OF CONTAINERS

| | |
|---|---|
| BA = Burlap, cloth, paper, or plastic bags. | DT = Dump truck. |
| CF = Fiber or plastic boxes, cartons, cases. | DW = Wooden drums, barrels, kegs. |
| CM = Metal boxes, cartons, cases (including roll-offs). | HG = Hopper or gondola cars. |
| CW = Wooden boxes, cartons, cases. | TC = Tank cars. |
| CY = Cylinders. | TP = Portable tanks. |
| DF = Fiberboard or plastic drums, barrels, kegs. | TT = Cargo tanks (tank trucks). |
| DM = Metal drums, barrels, kegs. | |

*Item 11. Total Quantity*

Enter, in designated boxes, the total quantity of waste. Round partial units to the nearest whole unit, and *do not* enter decimals or fractions. To the extent practical, report quantities using appropriate units of measure that will allow you to report quantities with precision. Waste quantities entered should be based on actual measurements or reasonably accurate estimates of actual quantities shipped. Container capacities are not acceptable as estimates.

*Item 12. Units of Measure (Weight/Volume)*

Enter, in designated boxes, the appropriate abbreviation from Table II (below) for the unit of measure.

TABLE II.--UNITS OF MEASURE

| | |
|---|---|
| G = Gallons (liquids only). | N = Cubic Meters. |
| K = Kilograms. | P = Pounds. |
| L = Liters (liquids only). | T = Tons (2000 Pounds). |
| M = Metric Tons (1000 kilograms). | Y = Cubic Yards. |

**Note:** Tons, Metric Tons, Cubic Meters, and Cubic Yards should only be reported in connection with very large bulk shipments, such as rail cars, tank trucks, or barges.

*Item 13. Waste Codes*

Enter up to six federal and state waste codes to describe each waste stream identified in Item 9b. State waste codes that are not redundant with federal codes must be entered here, in addition to the federal waste codes which are most representative of the properties of the waste.

*Item 14. Special Handling Instructions and Additional Information*

1. Generators may enter any special handling or shipment-specific information necessary for the proper management or tracking of the materials under the generator's or other handler's business processes, such as waste profile numbers, container codes, bar codes, or response guide numbers. Generators also may use this space to enter additional descriptive information about their shipped materials, such as chemical names, constituent percentages, physical state, or specific gravity of wastes identified with volume units in Item 12.
2. This space may be used to record limited types of federally required information for which there is no specific space provided on the manifest, including any alternate facility designations; the manifest tracking number of the original manifest for rejected wastes and residues that are re-shipped under a second manifest; and the specification of PCB waste descriptions and PCB out-of-service dates required under 40 CFR 761.207. Generators, however, cannot be required to enter information in this space to meet state regulatory requirements.

*Item 15. Generator's/Offeror's Certifications*

1. The generator must read, sign, and date the waste minimization certification statement. In signing the waste minimization certification statement, those generators who have not been exempted by statute or regulation from the duty to make a waste minimization certification under section 3002(b) of RCRA are also certifying that they have complied with the waste minimization requirements. The Generator's Certification also contains the required attestation that the shipment has been properly prepared and is in proper condition for transportation (the shipper's certification). The content of the shipper's certification statement is as follows: "I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent." When a party other than the generator prepares the shipment for transportation, this party may also sign the shipper's certification statement as the offeror of the shipment.
2. Generator or Offeror personnel may preprint the words, "On behalf of" in the signature block or may hand write this statement in the signature block prior to signing the generator/offeror certification, to indicate that the individual signs as the employee or agent of the named principal.

**Note:** All of the above information except the handwritten signature required in Item 15 may be pre-printed.

08-44700-
TRUCK 158 Box 63082 99756 #10968

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: NYD131318651
2. Page 1 of: 1
3. Emergency Response Phone: (908) 354-0210
4. Manifest Tracking Number: 001028640 JJK

5. Generator's Name and Mailing Address: SULZER METCO US INC
1101 PROSPECT AVE
WESTBURY, NY 11590
Generator's Phone: (516) 338-2417

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: CLEAN VENTURE INC. — U.S. EPA ID Number: NJ0000027193

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Waste Control Specialists, LLC
9998 W. Hwy 176
Andrew, TX 79714
Facility's Phone: (575) 394-4300
U.S. EPA ID Number: TXD988088464

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes |
|---|---|---|---|---|---|---|
| X | 1. RADIOACTIVE MATERIAL EXCEPTED PACKAGE LIMITED QUANTITY OF MATERIAL 7 UN2910 ERG# 161 | 24 | C F | 23000 | P | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

SULZER METCO (US) INC
SEP 17 2008
EHS DEPARTMENT

14. Special Handling Instructions and Additional Information: 945948/-1/89783/235660 (1)DIRECT-53 NORM waste WCS Profile Number: WP-019571 CCI PO number: 52184
seal OB 0062949

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: + Jim Kourkoumelis — Signature: [signature] — Month 09 Day 02 Year 08

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Kevin J Gross — Signature: [signature] — Month 9 Day 2 Year 08
Transporter 2 Printed/Typed Name: X — Signature: — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Jim Crawford — Signature: [signature] — Month 09 Day 04 Year 08

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

# STRAIGHT BILL OF LADING
# ORIGINAL-NOT NEGOTIABLE

BOL# 7912397

GSN TRUCKING INC (GSNK)
(CARRIER)

(DELIVERING CARRIER, IF DIFFERENT)

## SHIPPER

CASTLE ROCK STORAGE LLC
2060 9TH AVENUE
RONKONKOMA NY 11779

## CONSIGNEE

SULZER/METCO (516) 338-2372
1101 PROSPECT AVE
WESTBURY NY 11590

## REFERENCE

TRIP/SEQ: 0121577-001
REF#: 7912397-50
DRIVER:
DATE: 2008/09/02
CUST: 13550
SHIP TO: 1
PRO:
LOADER: ROBERT

DELIVERY DATES
NOT EARLIER THAN:
NOT LATER THAN:

DIRECTIONS

HRS OF OPERATION:
CONTACT NAME: RICH SALVATORE

| CUST PO | INVOICE | DESCRIPTION | CLASS | HM | CASES | WT | MESSAGE |
|---|---|---|---|---|---|---|---|
| ternet | | 1 TOTAL | | | 24 | 1272 | |

LIST DETAILS OF ANY DISCREPANCIES BELOW

| INVOICE | ITEM# | ITEM DESCRIPTION | CS-QTY | REASON / R.A. |
|---|---|---|---|---|

MUST sign for CASES. Do NOT accept "subject to count" nor "said to contain" (STC)

Pallet Exchange Requir

| SIGNATURE | DATE | CASES | CORRECTED CASES | INIT | CHEP IN | PLTS IN | PI OI |
|---|---|---|---|---|---|---|---|
| | | 24 | | | | | |

Freight Paid by CASTLE ROCK STORAGE LLC 2060 9TH AVENUE RONKONKOMA NY 11779

Carrier agrees to carry to the usual place of delivery at destination above described property in apparent good order, ma consigned, & destined as indicated. It is mutually agreed, each carrier of any or all of said property over any or all c route, that every service to be performed hereunder is subject to all terms and conditions of the Uniform Domestic Strai Bill of Lading. Shipper hereby certifies that he is familiar with all the terms&conditions of the bill of lading, set fc

# STRAIGHT BILL OF LADING
# ORIGINAL-NOT NEGOTIABLE

BOL# 7912397

GSN TRUCKING INC (GSNK)
(CARRIER)

(DELIVERING CARRIER, IF DIFFERENT)

## SHIPPER

'ASTLE ROCK STORAGE LLC
:060 9TH AVENUE
:ONKONKOMA NY 11779

## CONSIGNEE

SULZER/METCO (516) 338-2372
1101 PROSPECT AVE
WESTBURY NY 11590

## REFERENCE

TRIP/SEQ: 0121577-001
REF#: 7912397-50
DRIVER:
DATE: 2008/09/02
CUST: 13550
SHIP TO: 1
PRO:
LOADER: ROBERT

)ELIVERY DATES
IOT EARLIER THAN:
IOT LATER THAN:

DIRECTIONS

IRS OF OPERATION:
:ONTACT NAME: RICH SALVATORE

| CUST PO | INVOICE | DESCRIPTION | CLASS | HM | CASES | WT | MESSAGE |
|---|---|---|---|---|---|---|---|
| :ernet | | 1 TOTAL | | | 24 | 1272 | |

LIST DETAILS OF ANY DISCREPANCIES BELOW

| INVOICE | ITEM# | ITEM DESCRIPTION | CS-QTY | REASON / R.A. |
|---|---|---|---|---|

MUST sign for CASES. Do NOT accept "subject to count" nor "said to contain" (STC)

Pallet Exchange Requir

| SIGNATURE | DATE | 24 CASES | CORRECTED CASES | INIT | CHEP IN | PLTS IN | PI OI |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

Freight Paid by CASTLE ROCK STORAGE LLC 2060 9TH AVENUE RONKONKOMA NY 11779

Carrier agrees to carry to the usual place of delivery at destination above described property in apparent good order, ma consigned, & destined as indicated. It is mutually agreed, each carrier of any or all of said property over any or all c route, that every service to be performed hereunder is subject to all terms and conditions of the Uniform Domestic Strai Bill of Lading. Shipper hereby certifies that he is familiar with all the terms&conditions of the bill of lading, set fc

# CASTLE ROCK STORAGE LLC

2060 9TH AVENUE

RONKONKOMA NY 11779

# PACKING SLIP

7912397

## REMIT TO

CASTLE ROCK STORAGE LLC
35 SAWGRASS DRIVE SUITE 1
BELLPORT, NY 11713

## SOLD TO

SULZER METCO (US) INC
RICH SALVATORE
1101 PROSPECT AVE
WESTBURY NY 11590

## SHIP TO

SULZER/METCO
(516) 338-2372
1101 PROSPECT AVE
WESTBURY NY 11590

## REFERENCE

INVOICE 7912397 PG
PO/DPT Internet
DATE 9/02/08
SLS HOUSE (21)
TERMS Net 15 Days
ACCT 13550/00001/0000
VIA RONKONKOMA
AR
AR PHN (000) 000-0000
AR FAX (000) 000-0000
AR EM

**DELIVERY DATE:**
NOT EARLIER THAN:
NOT LATER THAN:
DEA# 0000000

**MESSAGES**
INV: by: sulzer@crstorage.com

| LINE | QTY | UM | ITEM | DESCRIPTION | UPC | BOX# | STOCK | CD | YOUR # |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | EA | 203 | PALLET OUT | 203 | 36283 | | | 203 |
| 2 | 1 | EA | 203 | PALLET OUT | 203 | 36276 | | | 203 |
| 3 | 1 | EA | 203 | PALLET OUT | 203 | 36269 | | | 203 |
| 4 | 1 | EA | 203 | PALLET OUT | 203 | 36252 | | | 203 |
| 5 | 1 | EA | 203 | PALLET OUT | 203 | 36245 | | | 203 |
| 6 | 1 | EA | 203 | PALLET OUT | 203 | 36238 | | | 203 |
| 7 | 1 | EA | 203 | PALLET OUT | 203 | 36221 | | | 203 |
| 8 | 1 | EA | 203 | PALLET OUT | 203 | 36214 | | | 203 |
| 9 | 1 | EA | 203 | PALLET OUT | 203 | 36207 | | | 203 |
| 10 | 1 | EA | 203 | PALLET OUT | 203 | 36191 | | | 203 |
| 11 | 1 | EA | 203 | PALLET OUT | 203 | 36184 | | | 203 |
| 12 | 1 | EA | 203 | PALLET OUT | 203 | 36177 | | | 203 |
| 13 | 1 | EA | 203 | PALLET OUT | 203 | 36092 | | | 203 |
| 14 | 1 | EA | 203 | PALLET OUT | 203 | 36047 | | | 203 |
| 15 | 1 | EA | 203 | PALLET OUT | 203 | 36023 | | | 203 |
| 16 | 1 | EA | 203 | PALLET OUT | 203 | 36016 | | | 203 |
| 17 | 1 | EA | 203 | PALLET OUT | 203 | 36009 | | | 203 |
| 18 | 1 | EA | 203 | PALLET OUT | 203 | 35996 | | | 203 |
| 19 | 1 | EA | 203 | PALLET OUT | 203 | 35989 | | | 203 |
| 20 | 1 | EA | 203 | PALLET OUT | 203 | 35972 | | | 203 |
| 21 | 1 | EA | 203 | PALLET OUT | 203 | 35965 | | | 203 |
| 22 | 1 | EA | 203 | PALLET OUT | 203 | 35958 | | | 203 |
| 23 | 1 | EA | 203 | PALLET OUT | 203 | 35941 | | | 203 |
| 24 | 1 | EA | 203 | PALLET OUT | 203 | 35934 | | | 203 |
| * | 24 | | 203 | **** ITEM SUB TOTAL **** | | | | | |
| 25 | 1 | EA | 99915 | PICKUP/DELV TO WH (NO CHARGE) | 99915 | | | | |

SUB TOTAL

Page.....Totals Job Run.....Parameters
25EA ROBERT PACKSLIP N 1080902 1016 000
PT 5.0CT 25PL 25CL 7912397

Volume....Measurement
1272LB 12.0000V
84HWT

TRIP121577 LOADER-ROBERT

INVOICE CASE TOTAL

U.S. Environmental Protection Agency
Office of Prevention, Pesticides and Toxic Substances
Office of Pollution Prevention and Toxics
Information Management Division

TRI ID #: 11590-PRKNL-1101P 12/22/97
MICHAEL S. LYDON
SULZER METCO (US) INC.
1101 PROSPECT AVE.
WESTBURY, NY 11590-0020

## T O X I C R E L E A S E I N V E N T O R Y (T R I)

## N O T I C E O F T E C H N I C A L E R R O R (N O T E)

The errors noted in the attached error reports were identified in your TRI Form R submissions.

It has come to EPA's attention that in some cases, the Automated Form R for Reporting Year 1996 has caused the omission/misrepresentation of receiving stream, POTW/Off-site and/or On-site Waste Treatment data. As a result, the Notice of Technical Error (NOTE) message(s) referenced in the attached report(s) may have been mistakenly generated.

EPA wishes to represent accurately the data reported by your facility; therefore, it is important that you verify the attached report(s) against your own Form R records.

**Please correct the attached report as necessary within 21 days of receipt and return it to both EPA and to the same state organization to which you sent a copy of the original submission.**

- **EPA Address**

**The EPCRA Reporting Center**
**P.O. Box 3348**
**Merrifield, VA 22116-3348**
**Attn: TRI NOTE**

or if you are sending by overnight delivery, return the corrected report to:

**The EPRCA Reporting Center**
**c/o Computer Based Systems Inc.**
**Suite 300**
**4600 North Fairfax Drive**
**Arlington, VA 22203**
**Attn: TRI NOTE**

o **State Address**

**SITANSU GHOSH**
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CO**
**POLLUTION PREVENTION UNIT**
**50 WOLF ROAD/ROOM 298**
**ALBANY, NY 12233-8010**

EPA recommends that Government-Owned Contractor-Operated (GOCO) facilities send copies of their corrections to their associated Federal Facilities.

If you prefer, you may submit a complete Form R for each submission in error.

If you have any questions about this NOTE, please call the Automated Form R User Support Hotline at (703) 816-4434. Thank you.

/s/ Janette Petersen, Chief
Toxic Release inventory Information
Management Branch (7407)

Enclosure(s)

# N O T I C E  O F  T E C H N I C A L  E R R O R (N O T E)

TRIF-ID: 11590PRKNL1101P
DCN: 13-96-10601661-9-NY
12/22/97

SULZER METCO (US) INC.
1101 PROSPECT AVE.
WESTBURY, NY 11590-0020

CAS NUMBER/CATEGORY CODE: N090 - -
CHEMICAL/CATEGORY NAME: CHROMIUM COMPOUNDS

---

PART I, SECTION 3
CERTIFICATION
VALUE: N** NO CERTIFICATION SIGNATURE **
ERROR: YOU MUST SIGN THE FORM AND DATE THE SIGNATURE, PART I, SECTION 3.

PART I, SECTION 4.6
LATITUDE AND LONGITUDE
VALUE: LATITUDE =404550,LONGITUDE =1733310
ERROR: YOU DID NOT CORRECTLY COMPLETE PART I, SECTION 4.6, LATITUDE AND LONGITUDE FOR YOUR FACILITY. "NA" IS NOT AN ACCEPTABLE ENTRY. LATITUDE AND LONGITUDE SHOULD BE SEVEN DIGITS WITH LEADING AND/OR TRAILING ZEROES. THE 48 CONTIGUOUS U.S. STATES HAVE LATITUDES RANGING (SOUTH TO NORTH) FROM 24 DEGREES 33 MINUTES 00 SECONDS TO 48 DEGREES 23 MINUTES 00 SECONDS AND LONGITUDES (EAST TO WEST) FROM 66 DEGREES 57 MINUTES 00 SECONDS TO 124 DEGREES 44 MINUTES 00 SECONDS RESPECTIVELY. PLEASE CONSULT FORM R, APPENDIX E AND INSTRUCTIONS.

*(Important: Type or print; read instructions before completing form.)*



EPA

# EPA FORM R
## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

## ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Release (pounds/yr) A.1 Reporting Ranges 1-10 / 11-499 / 500-999 | A. Total Release (pounds/yr) A.2 Enter Estimate | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|
| 5.3 Discharges to receiving streams or water bodies 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| (Enter letter code from Part I Section 3.10 for stream(s) in the box provided.) 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

## ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/yr) A.1 Reporting Ranges 1-10 / 11-499 / 500-999 | A. Total Transfers (pounds/yr) A.2 Enter Estimate | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 ☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |

## ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

# PC EXTRA

MATERIAL SAFETY DATA SHEET ESSENTIALLY SIMILAR TO OSHA-20
NE=NOT ESTABLISHED NA=NOT APPLICABLE

## SECTION 1 - GENERAL INFORMATION

ADF SYSTEMS, LTD.
1302 19th St. N, PO Box 278,
Humboldt, IA 50548
EMERGENCY TELEPHONE: 800-228-5635 ext. 005

TRADE NAME: PC EXTRA
CHEMICAL FAMILY: Alkaline Detergent
PRODUCT DESCRIPTION: Granular, white solid, little odor

## SECTION 2 – COMPOSITION, INFORMATION ON INGREDIENTS

| HAZARDOUS COMPONENTS | CAS # | % | SECTION 313? | TLV (UNITS) |
|---|---|---|---|---|
| Sodium metasilicate | 6834-92-0 | <50% | NO | 2mg/m$^3$ |

NOTE 1-Section 313 Supplier Notification: "1" identifies chemical ingredients subject to reporting requirements of Section 313 of the Emergency Planning & Community Right-To-Know Act of 1986. This information should be included in all MSDS's that are copies & distributed for this material.

## SECTION 3 – HAZARDS IDENTIFICATION

HAZARD SIGNAL: (short term contact or inhalation only):
Health – 2 Instability – 0 Fire – 0 Other – x (0=insignificant; 1=slight; 2=moderate; 3=high; 4=extreme)
THRESHOLD LIMIT VALUE: NE, blended product. See section 2 for information on listed ingredients.
PRIMARY ROUTES OF ENTRY: Eye contact, skin contact, inhalation of dust or spray.

EFFECTS OF ACUTE OVEREXPOSURE
EYES: Severe irritation, or burns possible.
SKIN: Irritation or burns possible with prolonged contact.
INHALATION of dust of product or mist of solution - Irritation of respiratory tract.
INGESTION: Irritation or burns of mouth, throat and stomach. Stomach upset.
EFFECTS OF CHRONIC OVEREXPOSURE: None expected beyond acute effects. Contains less than 5% amines. There could possibly be liver or kidney effects with extensive over exposure, based on animal studies of amines. Additionally, some people develop skin sensitization to amines.

CARCINOGENICITY: This product or its ingredients have not been identified as a carcinogen or probable carcinogen by: NTP, IARC Monographs, or OSHA.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Dermatitis & similar skin disorders.

## SECTION 4 – FIRST AID MEASURES

EYES: Immediately flush with cool running water holding eye lids apart. Remove contact lenses if applicable and continue flushing for 15 minutes. Contact a physician.
SKIN: Immediately flush with cool running water for 15 minutes. Remove contaminated clothing & wash before reuse. If irritation or burn develops & persists, get medical advice or assistance.
INHALATION: Remove to fresh air. If breathing difficulties occur, seek medical attention.
INGESTION: Rinse mouth with large amounts of water. Drink water, milk or other fluids to dilute. Do not induce vomiting unless directed by medical personnel. Immediately call for medical advise or assistance.

## SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: As needed for surrounding fire.
SPECIAL FIRE FIGHTING PROCEDURES: For any chemical fire, wear self contained breathing apparatus, & protective clothing to prevent contact.
UNUSUAL FIRE & EXPLOSION HAZARDS: None
HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon & nitrogen.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

SMALL SPILLS, less than 2 pounds: Recover as practical. Flush spill area to drain with excess water.
LARGE SPILLS: Only knowledgeable & properly protected people should work with a large spill. Get professional assistance if necessary. Stop source of discharge if safe to do so. Evacuate unprotected personnel from the immediate area. Keep material dry. Contain spilled material, & keep from discharging to surface waters. Recover to drum for later use, treatment or disposal. Flush residual to drain. Notify local, state or national authorities if required.
DISPOSAL: Product & un-neutralized solutions are alkaline. Normally sewer disposable in dilute solutions. Check with local authorities about any possible restrictions.

**SECTION 7 – HANDLING AND STORAGE**

HANDLING: Avoid unnecessary contact with product. Avoid breathing product dust, or mists of solution of product. Wash immediately after contact. Wash after use. Clean up spills promptly to prevent accidental contact. Prevent contact with incompatible materials; see Section 10.

STORAGE: Keep containers tightly closed. Keep product dry to prevent caking.

**SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION**

RESPIRATOR TYPE: None normally required. NIOSH/MSHA approved respirator where conditions may cause exposure limits to be exceeded from dust of product or mists of solutions.

VENTILATION: General or local to avoid exposure to irritating product dust or mists of solutions.

EYE PROTECTION: Glasses, Safety goggles and/or face shield to prevent eye exposure.

PROTECTIVE CLOTHING: Chemical resistant, impermeable gloves as needed to prevent excessive contact. Full body covering and shoes as needed to prevent excessive contact.

OTHER PROTECTIVE EQUIPMENT: Eyewash stations in the work area.

**SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES**

| | | |
|---|---|---|
| BOILING POINT: NE | SPECIFIC GRAVITY: NE | VAPOR PRESSURE: NE |
| PERCENT VOLATILE: Nil | VAPOR DENSITY: NE | EVAPORATION RATE: NA |
| SOLUBILITY IN WATER: complete | pH: 12 ± .5 (2% solution) | V.O.C.: Nil |

**SECTION 10 – STABILITY & REACTIVITY**

STABLE: Yes Hazardous polymerization will not occur

CONDITIONS TO AVOID: Contact with incompatible materials (see below)

INCOMPATIBILITY: Strong oxidizing agents.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

No Data

**SECTION 12 – ECOLOGICAL INFORMATION**

No Data

**SECTION 13 – DISPOSAL INFORMATION**

WASTE MANAGEMENT: Dispose of in accordance with all applicable local, state & federal regulations.

**SECTION 14 – TRANSPORT INFORMATION**

DOT INFORMATION: 49 CFR 172.101 DOT DESCRIPTION: Non-regulated by D.O.T.

**SECTION 15 – REGULATORY INFORMATION**

US FEDERAL REGULATIONS: (TSCA Toxic Substances Control Act) Status TSCA (United States) The intentional ingredients of this product are listed.

CERCLA RQ-40 CFR 302.4 (a): none listed

SARA 302 Components – 40 CFR 355 Appendix A: None

Section 311/312 Hazard Class – 40 CFR 370.2

SARA 313 Components – 40 CFR 372.65: None

International Regulations Inventory Status: not determined.

State & Local Regulations: California Proposition 65: None

**SECTION 16 – OTHER INFORMATION**

DISCLAIMER: The above information is, to the best of our knowledge, current, accurate, and complete based on information reasonably available to us as of the date of preparation of this form. However, it is the user's responsibility to determine the safety, toxicity and suitability for his or her own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by ADF Systems, Ltd. as to the effects of such use or on the safety or toxicity of this product. Nor does ADF assume any liability arising out of use by others of the product. Nor is the information herein to be construed as absolutely complete, since additional information may be necessary or desirable when exceptional conditions or circumstances exist or because of applicable laws or regulations.

DATE PREPARED May 1, 1998

Supersedes November 5, 1997

# SULZER METCO

914-737-9244

**Sulzer Metco (US) Inc.**
325 Duffy Avenue
Hicksville, NY 11801
Phone: (516) 338-2550 • Fax: (516) 338-2576

## PURCHASE ORDER PAGE OF

| ORDER DATE | PO NUMBER | AMENDMENT |
|---|---|---|
| 11/22/96 | 204059 | |

DIRECT CORRESPONDENCE TO

| BUYER | TELEPHONE NUMBER |
|---|---|
| MARILYNN BLOCH | 516-3381300 |

TO: NDL ORGANIZATION INC.
P.O. BOX 791
PEEKSKILL NY 10566
914-737-7200

INVOICE TO ADDRESS: P.O. BOX 1006., WESTBURY, N.Y. 11590

DO NOT DUPLICATE ORDER CONFIRMED TO

| NAME | DATE |
|---|---|
| PETER PASTORELL | 11/22/96 |

SHIP TO ADDRESS: 1101 PROSPECT AVE.,WESTBURY,NY 11590

| TERMS | VENDOR NO. | SHIP VIA | FOB |
|---|---|---|---|
| NET 30 | 50923 | VEND TRUCK | SP |

| METCO INSPEC | TAXABLE | NOT SUBJECT TO SALES TAX (SEE PAR 21 UNDER "TERMS & COND".) | SPECIAL TERMS, CONDITIONS OR INSTRUCTIONS ATTACHED | METCO SOURCE INSPECTION | TO AVOID REJECTION OF SHIPMENT, MATERIAL MUST BE ACCOMPANIED BY THESE CERTIFICATES. | CERTIFICATE OF COMPLIANCE | MATERIAL CERTIFICATION |
|---|---|---|---|---|---|---|---|
| | X | | | | | | |

THESE ITEMS ARE APPLICABLE WHEN CHECKED (X)

| ITEM | METCO PART NUMBER | REV | DESCRIPTION | ORDER QUANTITY | UM | SHIP TO ARRIVE MO | DAY | YR | BILLING UNIT PRICE | UM |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | USHA Material Safety Sheet shall be completed as per attached instructions or Purchase Specification if required. We reserve the right to Refuse & Return collect any item under this order that is received more than one (1) week ahead of specified Delivery Date. | | | | | | | |
| 1 | Z95000 | | ENVIRONMENTAL SDUTH REMOVAL AND DISPOSAL AT BARNWELL, ~~NORTH~~ CAROLINA OR WASTE THORIATED TUNGSTEN IN FIVE (5) GALLON CONTAINERS CATEGORY D, DRUM WEIGHT GREATER THAN 50 POUNDS | 9 | EA | 12 | 31 | 96 | 830.0000 | E |
| 2 | Z95000 | | ENVIRONMENTAL GAS PROPORTIONAL COUNTING (WINDOWLESS) WIPES | 9 | EA | 12 | 31 | 96 | 12.5000 | EA |
| 3 | Z95000 | | ENVIRONMENTAL ZONE CHARGE OUTSIDE SERVICE AREA | 1 | EA | 12 | 31 | 96 | 25.0000 | EA |
| | | | Total Order Amount | | | | | | 7507.50 | |
| | | | REQUISITION# 10203 REQUESTOR CONNIE CONROY, PROSPECT | | | | | | | |

## INSTRUCTIONS TO VENDOR

**INSURANCE**

- IF TERMS ARE F.O.B. SHIPPING POINT, INSURE PARCEL POST SHIPMENTS OF $50 OR MORE AT $50.
- RELEASE OTHER SHIPMENTS TO CARRIER WITH NO VALUATION.

**CERTIFICATION**

- WHEN SPECIFIED ABOVE, ASSURE THAT CERTIFICATE ACCOMPANIES MATERIAL BEING SHIPPED.

**INVOICES & PACKING LIST**

- SHOW PURCHASE ORDER NO. ON ALL DOCUMENTS AND PACKAGES.
- ENCLOSE PACKING LIST WITH EACH SHIPMENT.
- MAIL INVOICE IN DUPLICATE TO ADDRESS SPECIFIED.

By accepting this order, you agree to comply with and be bound by the terms appearing on the face and reverse side hereof and/or attachments hereto. In the event of conflict, the term in conflict appearing on the face or attachment shall apply.

Sulzer Metco

BY Marilynn Block

**Sign and Return Acceptance Copy Immediately and Confirm "Ship To Arrive" Date(s)**

VENDOR

To PURCHASING DEPT.

Date NOVEMBER 20, 1996

To be used for WASTE REMOVAL

Date required

# SULZER METCO

## REQUEST FOR PURCHASE

| REQUISITION NUMBER |
|---|
| 10203 |

THE NDL ORGANIZATION, INC.
POST OFFICE BOX 791
PEEKSKILL, NY 10566

PURCHASE ORDER NO 204059.
CONTACT PETER PASTORELLE
TEL NO (914) 737-7200

| SHIP VIA | F.O.B. | TERMS | PROMISED DELIVERY DATE |
|---|---|---|---|
| | | | 12/5/96 |

GRAY AREAS FOR PURCHASING USE ONLY

| ITEM | QUANTITY | DESCRIPTION | TAX | PRICE |
|---|---|---|---|---|
| 1 | 9 | REMOVAL AND DISPOSAL AT BARNWELL, ~~NORTH~~ South. CAROLINA | | $830.00/EACH |
| | | OF WASTE THORIATED TUNGSTEN IN 5 GALLON CONTAINERS | | |
| | | CATEGORY D, DRUM WEIGHT GREATER THAN 50 POUNDS | | |
| 2 | 9 | GAS PROPORTIONAL COUNTING (WINDOWLESS) WIPES | | $12.50/EACH |
| 3 | 1 | ZONE CHARGE - OUTSIDE SERVICE AREA | | $25.00 |

NOV 21

SUGGESTED SOURCE OF SUPPLY: fax 914-737-9244

TOTAL 7607.5

| WORK ORDER NUMBER | CHARGE NUMBER | REQUESTED BY | APPROVED BY | APPROVED BY |
|---|---|---|---|---|
| | 2849.00660 | C.L. CONROY CLConroy EMP# 121569 | Jane Zanet 102725 | |

BUYER Marilyn Block

DELIVER TO: PLANT DUFFY AVENUE
DEPT. FACILITIES - E, H & S
ATTN.

PURCHASING
P2SUL001529

the NDL rganization, inc.

post office box 79
peekskill, new york 105
(914) 737-720
fax (914) 737-92

**FAX TRANSMITTAL**

Date 11/22/96

Time 11:45 (AM) PM

TO: Marilynn Block

Number of Pages 19 [including this one]

FROM: Peter Mastorelli

Comments:

-NEW-

**THE NDL ORGANIZATION, INC.**
P.O. Box 791
Peekskill, NY 10566
(914)737-7200 FAX (914)737-9244

Printed 10-28-96

## RADIOACTIVE WASTE DISPOSAL PRICE LIST

**Effective :** November 11, 1996

| DESCRIPTION | CATEGORY | ITEM | $ COST | TOTAL |
|---|---|---|---|---|
| **SCINTILLATION MEDIA:** | | | | |
| ( NO CREDIT GIVEN FOR NON-NDL DRUMS - IN AND OUT PRICE CHARGED ON REMOVAL .) | | | | |
| *NOTE: Costs for scintillation media (other than bulk liquids) include cost of container. **Removal costs of all scintillation media (including bulk liquid and beta plates) are subject to the 6% Peekskill Assessment** (not a sales tax). | | | | |
| 30Gal Vials on Delivery | SR | DEL-30G-SR | 115.00 | |
| 30Gal Vials on Removal | SR | REM-30G-SR | 222.85 | 337.85 |
| 30Gal Vials on Delivery | SX (non-radioactive) | DEL-30G-SX | 115.00 | |
| 30Gal Vials on Removal | SX (non-radioactive) | REM-30G-SX | 113.50 | 228.50 |
| 55Gal Vials on Delivery | SR | DEL-55G-SR | 195.00 | |
| 55Gal Vials on Removal | SR | REM-55G-SR | 275.60 | 470.60 |
| 55Gal Vials on Delivery | SX (non-radioactive) | DEL-55G-SX | 195.00 | |
| 55Gal Vials on Removal | SX (non-radioactive) | REM-55G-SX | 114.50 | 309.50 |
| **FOR BETA PLATES:** | | | | |
| (ADDED TO ABOVE TOTAL COSTS): | | | | |
| 30Gal on Removal | SR | ADD-30G-SR-BETA | 220.00 | |
| 30Gal on Removal | SX(non-radioactive) | ADD-30G-SX-BETA | 195.00 | |
| 55Gal on Removal | SR | ADD-55G-SR-BETA | 400.00 | |
| 55Gal on Removal | SX(non-radioactive) | ADD-55G-SX-BETA | 350.00 | |
| **BULK LIQUIDS: (Pricing is based on outer container)** | | | | |
| Bulk SR Removal | SR | REM-BULK-SR | 9.43/GAL | |
| Bulk SX Removal | SX(non-radioactive) | REM-BULK-SX | 8.90/GAL | |
| ***Peekskill Scintillation Assessment on Removal** | | | | 6.00% OF COST |

**TARIFF NOTES (NON-RADIOACTIVE & NON-HAZARDOUS RATES):**

1- **Overweight shipments:** Small Vehicle: if over 70 lbs., add $0.50/lb. or fraction
Straight Truck: if over 300 lbs., add $ 0.02/lb. or fraction
Tractor Trailer: if over 42,000 lbs., add $ 0.75/CWT or fraction, to a 45,000 lb. max.

2- Mileage travelled from NDL's terminal in Peekskill, NY, to point of pick-up or delivery.

3- Mileage travelled from point of origin of shipment to point of destination

4 - **Exclusive use shipments:**
Small Vehicle: additional charge of $35.00/shipment
Straight Truck: additional charge of $ 125.00/shipment
Tractor Trailer: additional charge of $ 175.00/shipment. On truckload shipments, NDL will provide exclusive use service where requested by shipper or consignee. No special notation will be required on the shipping documents. For less that truckload, exclusive use will apply, unless otherwise specified by the shipper or consignee.

5- **Detention of vehicle & driver:**
Small Vehicle: After 30 minutes, fee is $35.00/20 minute period or part thereof
Straight Truck: After 1 hour, fee is $40.00/hour
Tractor Trailer: After 4 hours, fee is $50.00/hour.

6- **Vehicle ordered and not used:** If the shipper requests service and a vehicle is dispatched, and the order for service is cancelled after arrival of vehicle at origin point, the carrier will assess the applicable minimum charge or pick-up and delivery charge, but no line-haul rate. No charge will be assessed if the request for service is cancelled prior to the vehicle being dispatched.

7- **Re-Delivery:** When, through no fault of the carrier, a shipment cannot be delivered when tendered, or after the carrier has made reasonable efforts to effect delivery, and re-delivery is requested, charges for each additional delivery will be assessed at the rates named in the above schedules, applicable from point of origin to final destination, in addition to accrued freight and other lawful charges.

8- **Multiple Stops:** Where the shipper of consignee request to perform multiple stops, such service will be performed subject to the following:
A) The line-haul transportation rate will be assessed from the point of origin to the most distant point of destination.
B) Each stop-off will be charged as follows (excluding origin & final destination):
Small Vehicle: $25.00/stop
Straight Truck: $ 45.00/stop
Tractor Trailer: $ 60.00/stop
C) Point of origin, destination, and all intermediate stops must be listed on one bill of lading

9- **Refused or undelivered shipments:** All shipments refused by the consignee, for any reason beyond the carrier's control, will be returned to the shipper. The charge for such shipment will be the applicable rate from origin to destination, plus 2/3 of the applicable rate from the refused destination to the shipper's original point of origin. The carrier will notify the shipper within 16 normal business hours of such non-delivery for refusal to accept the shipment. Normal business hours are defined as the hours between 9:00 AM and 5:00 PM, Mon. through Fri., excluding national and carrier holidays. If re-delivery is requested, the charges will be as specified in item 7.

## NDL TRANSPORT TARIFF, CONT'D
## NON-RADIOACTIVE AND/OR NON-HAZARDOUS RATES

**ITEM 5 - TRACTOR TRAILER - (Truckload):**

| MILES (see note 1) | PICK-UP & DELIVERY CHARGE (see note 2) | + | LINE-HAUL RATE PER MILE (see note 3) |
|---|---|---|---|
| 1 TO 50 | $ 279.65 | + | $ 1.05 |
| 51 TO 100 | 349.65 | + | 1.10 |
| 101 TO 150 | 535.27 | + | 1.15 |
| 151 TO 200 | 722.84 | + | 1.20 |
| 201 TO 250 | 910.40 | + | 1.25 |
| 251 TO 300 | 1129.72 | + | 1.30 |
| 301 TO 350 | 1347.45 | + | 1.35 |
| 351 TO 400 | 1555.30 | + | 1.40 |
| 401 TO 450 | 1750.01 | + | 1.45 |
| 451 TO 500 | 1771.52 | + | 1.50 |
| 501 TO 550 | 1806.95 | + | 1.55 |
| 551 TO 600 | 1859.45 | + | 1.60 |
| 601 TO 650 | 1915.10 | + | 1.65 |
| 651 TO 700 | 1969.43 | + | 1.70 |
| 701 TO 750 | 2023.07 | + | 1.75 |
| 751 TO 800 | 2077.48 | + | 1.80 |
| 801 TO 850 | 2124.84 | + | 1.85 |
| 851 TO 900 | 2179.54 | + | 1.90 |
| 901 TO 950 | 2236.82 | + | 1.95 |
| 951 + | 2294.46 | + | 2.00 |

**MINIMUM CHARGE PER SHIPMENT IS $ 500.00**

## NDL TRANSPORT TARIFF, CONT'D
## NON-RADIOACTIVE AND/OR NON-HAZARDOUS RATES

**ITEM 4 - STRAIGHT TRUCK - (Less than Truckload):**

| MILES (see note 1) | PICK-UP & DELIVERY CHARGE (see note 2) | + | LINE-HAUL RATE PER MILE (see note 3) |
|---|---|---|---|
| 1 TO 50 | $ 90.25 | + | $ 0.75 |
| 51 TO 100 | 112.86 | + | 0.80 |
| 101 TO 150 | 181.59 | + | 0.85 |
| 151 TO 200 | 233.47 | + | 0.90 |
| 201 TO 250 | 313.80 | + | 0.95 |
| 251 TO 300 | 394.32 | + | 1.00 |
| 301 TO 350 | 476.03 | + | 1.05 |
| 351 TO 400 | 555.68 | + | 1.10 |
| 401 TO 450 | 632.85 | + | 1.15 |
| 451 TO 500 | 647.31 | + | 1.20 |
| 501 TO 550 | 666.73 | + | 1.25 |
| 551 TO 600 | 686.24 | + | 1.30 |
| 601 TO 650 | 712.41 | + | 1.35 |
| 651 TO 700 | 738.54 | + | 1.40 |
| 701 TO 750 | 764.63 | + | 1.45 |
| 751 TO 800 | 791.07 | + | 1.50 |
| 801 TO 850 | 804.19 | + | 1.55 |
| 851 TO 900 | 817.30 | + | 1.60 |
| 901 TO 950 | 843.70 | + | 1.65 |
| 951 + | 870.11 | + | 1.70 |

**MINIMUM CHARGE PER SHIPMENT IS $ 276.00**

# NDL TRANSPORT TARIFF
## Contract Carriage
## NON-RADIOACTIVE AND/OR NON-HAZARDOUS RATES

**ITEM 3 - SMALL VEHICLE (Maximum Weight/Shipment = 70 lbs):**

| MILES (see note 1) | PICK-UP & DELIVERY CHARGE (see note 2) | + | LINE-HAUL RATE PER MILE (see note 3) |
|---|---|---|---|
| 1 TO 50 | $ 85.92 | + | $ 0.65 |
| 51 TO 100 | 107.99 | + | 0.70 |
| 101 TO 150 | 175.64 | + | 0.75 |
| 151 TO 200 | 226.44 | + | 0.80 |
| 201 TO 250 | 305.69 | + | 0.85 |
| 251 TO 300 | 385.13 | + | 0.90 |
| 301 TO 350 | 465.75 | + | 0.95 |
| 351 TO 400 | 544.32 | + | 1.00 |
| 401 TO 450 | 620.40 | + | 1.05 |
| 451 TO 500 | 633.80 | + | 1.10 |
| 501 TO 550 | 652.81 | + | 1.15 |
| 551 TO 600 | 679.61 | + | 1.20 |
| 601 TO 650 | 728.07 | + | 1.20 |
| 651 TO 700 | 779.26 | + | 1.20 |
| 701 TO 750 | 829.63 | + | 1.20 |
| 751 TO 800 | 877.34 | + | 1.20 |
| 801 TO 850 | 903.49 | + | 1.20 |
| 851 TO 900 | 929.60 | + | 1.20 |
| 901 TO 950 | 985.50 | + | 1.20 |
| 951 + | 1032.38 | + | 1.20 |

**MINIMUM CHARGE PER SHIPMENT IS $ 50.00**

**TARIFF NOTES (RADIOACTIVE & HAZARDOUS RATES):** **ITEM**

1- Overweight shipments:
Straight Truck: if over 300 lbs., add $ 0.10/lb. or fraction — ADD-TAR-S-301+
Tractor Trailer: if over 42,000 lbs., add $ 1.75/CWT or fraction, up to a maximum of 45,000 lbs. — ADD-TAR-T-42001

2- Mileage travelled from NDL's terminal in Peekskill, NY, to point of pick-up or delivery. — *****

3- Mileage travelled from point of origin of shipment to point of destination — *****

4 - **Exclusive use shipments:**
Straight Truck: additional charge of $ 125.00/shipment — ADD-TAR-S-EXCL
Tractor Trailer: additional charge of $ 300.00/shipment — ADD-TAR-T-EXCL

5- **Detention of vehicle:** after 1 hr., detention of vehicle & driver are:
Straight Truck: $ 40.00/hr. — ADD-S-DEMURAGE
Tractor Trailer: $ 50.00/hr. — ADD-T-DEMURAGE

6- **Vehicle ordered and not used:** If the shipper requests service and a vehicle is dispatched, and the order for service is cancelled after arrival of vehicle at origin point, the carrier will assess the applicable minimum charge or pick-up and delivery charge, but no line-haul rate. No charge will be assessed if the request for service is cancelled prior to the vehicle being dispatched. — *****

7- **Re-Delivery:** When, through no fault of the carrier, a shipment cannot be delivered when tendered, or after the carrier has made reasonable efforts to effect delivery, and re-delivery is requested, charges for each additional delivery will be assessed at the rates named in the above schedules, applicable from point of origin to final destination, in addition to accrued freight and other lawful charges. — *****

8- **Multiple Stops:** Where the shipper of consignee request to perform multiple stops, such service will be performed subject to the following:
A) The line-haul transportation rate will be assessed from the point of origin to the most distant point of destination.
B) Each stop-off will be charged as follows (excluding origin & final destination):
Straight Truck: $ 45.00/stop — ADD-S-MULTIPLE
Tractor Trailer: $ 60.00/stop — ADD-T-MULTIPLE
C) Point of origin, destination, and all intermediate stops must be listed on one bill of lading

9- **Refused or undelivered shipments:** All shipments refused by the consignee, for any reason beyond the carrier's control, will be returned to the shipper. The charge for such shipment will be the applicable rate from origin to destination, plus 2/3 of the applicable rate from the refused destination to the shipper's original point of origin. The carrier will notify the shipper within 16 normal business hours of such non-delivery for refusal to accept the shipment. Normal business hours are defined as the hours between 9:00 AM and 5:00 PM, Mon. through Fri., excluding national and carrier holidays. If re-delivery is requested, the charge will be as specified in item 7. — ADD-S-REFUSED / ADD-T-REFUSED

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## NDL TRANSPORT TARIFF, CONT'D
## RADIOACTIVE AND/OR HAZARDOUS RATES

**ITEM 2 - TRACTOR TRAILER - (Truckload):**
(MAXIMUM WEIGHT PER SHIPMENT = 42,000 LBS):

| MILES | ITEM | PICK-UP & DELIVERY CHARGE (see note 2) | + | ITEM | LINE-HAUL RATE PER MILE (see note 3) |
|---|---|---|---|---|---|
| 1 TO 50 | TAR-TPD-1-50 | $ 472.88 | + | TAR-TLH-1-50 | $ 1.15 |
| 51 TO 100 | TAR-TPD-51-100 | 594.09 | + | TAR-TLH-51-100 | 1.20 |
| 101 TO 150 | TAR-TPD-101-150 | 711.03 | + | TAR-TLH-101-150 | 1.25 |
| 151 TO 200 | TAR-TPD-151-200 | 820.70 | + | TAR-TLH-151-200 | 1.30 |
| 201 TO 250 | TAR-TPD-201-250 | 927.21 | + | TAR-TLH-201-250 | 1.35 |
| 251 TO 300 | TAR-TPD-251-300 | 1045.03 | + | TAR-TLH-251-300 | 1.40 |
| 301 TO 350 | TAR-TPD-301-350 | 1156.89 | + | TAR-TLH-301-350 | 1.45 |
| 351 TO 400 | TAR-TPD-351-400 | 1232.50 | + | TAR-TLH-351-400 | 1.50 |
| 401 TO 450 | TAR-TPD-401-451 | 1285.71 | + | TAR-TLH-401-450 | 1.55 |
| 451 TO 500 | TAR-TPD-451-500 | 1444.06 | + | TAR-TLH-451-500 | 1.60 |
| 501 TO 550 | TAR-TPD-501-550 | 1458.86 | + | TAR-TLH-501-550 | 1.65 |
| 551 TO 600 | TAR-TPD-551-600 | 1539.74 | + | TAR-TLH-551-600 | 1.70 |
| 601 TO 650 | TAR-TPD-601-650 | 1584.45 | + | TAR-TLH-601-650 | 1.75 |
| 651 TO 700 | TAR-TPD-651-700 | 1663.31 | + | TAR-TLH-651-700 | 1.80 |
| 701 TO 750 | TAR-TPD-701-750 | 1747.57 | + | TAR-TLH-701-750 | 1.85 |
| 751 TO 800 | TAR-TPD-751-800 | 1796.78 | + | TAR-TLH-751-800 | 1.90 |
| 801 TO 850 | TAR-TPD-801-850 | 1896.60 | + | TAR-TLH-801-850 | 1.95 |
| 851 TO 900 | TAR-TPD-851-900 | 1986.02 | + | TAR-TLH-851-900 | 2.00 |
| 901 TO 950 | TAR-TPD-901-950 | 2075.12 | + | TAR-TLH-901-950 | 2.05 |
| 951 + | TAR-TPD-951+ | 2122.58 | + | TAR-TLH-951+ | 2.10 |

**MINIMUM CHARGE PER SHIPMENT IS $ 640.00** TAR-T- MINIMUM

# NDL TRANSPORT TARIFF
## Contract Carriage
## RADIOACTIVE AND/OR HAZARDOUS RATES

**ITEM 1 - STRAIGHT TRUCK - (Less than Truckload):**

| MILES | ITEM | PICK-UP & DELIVERY CHARGE (see note 2) | + | ITEM | LINE-HAUL RATE PER MILE (see note 3) |
|---|---|---|---|---|---|
| 1 TO 50 | TAR-SPD-1-50 | $ 97.29 | + | TAR-SLH-1-50 | $ 0.80 |
| 51 TO 100 | TAR-SPD-51-100 | 121.91 | + | TAR-SLH-51-100 | 0.85 |
| 101 TO 150 | TAR-SPD-101-150 | 193.11 | + | TAR-SLH-101-150 | 0.90 |
| 151 TO 200 | TAR-SPD-151-200 | 244.74 | + | TAR-SLH-151-200 | 0.95 |
| 201 TO 250 | TAR-SPD-201-250 | 330.09 | + | TAR-SLH-201-250 | 1.00 |
| 251 TO 300 | TAR-SPD-251-300 | 413.28 | + | TAR-SLH-251-300 | 1.05 |
| 301 TO 350 | TAR-SPD-301-350 | 497.28 | + | TAR-SLH-301-350 | 1.10 |
| 351 TO 400 | TAR-SPD-351-400 | 580.25 | + | TAR-SLH-351-400 | 1.15 |
| 401 TO 450 | TAR-SPD-401-450 | 659.74 | + | TAR-SLH-401-450 | 1.20 |
| 451 TO 500 | TAR-SPD-451-500 | 675.59 | + | TAR-SLH-451-500 | 1.25 |
| 501 TO 550 | TAR-SPD-501-550 | 691.45 | + | TAR-SLH-501-550 | 1.30 |
| 551 TO 600 | TAR-SPD-551-600 | 705.29 | + | TAR-SLH-551-600 | 1.35 |
| 601 TO 650 | TAR-SPD-601-650 | 719.40 | + | TAR-SLH-601-650 | 1.40 |
| 651 TO 700 | TAR-SPD-651-700 | 733.79 | + | TAR-SLH-651-700 | 1.45 |
| 701 TO 750 | TAR-SPD-701-750 | 750.57 | + | TAR-SLH-701-750 | 1.50 |
| 751 TO 800 | TAR-SPD-751-800 | 773.09 | + | TAR-SLH-751-800 | 1.55 |
| 801 TO 850 | TAR-SPD-801-850 | 804.03 | + | TAR-SLH-801-850 | 1.60 |
| 851 TO 900 | TAR-SPD-851-900 | 836.19 | + | TAR-SLH-851-900 | 1.65 |
| 901 TO 950 | TAR-SPD-901-950 | 861.28 | + | TAR-SLH-901-950 | 1.70 |
| 951 + | TAR-SPD-951+ | 887.12 | + | TAR-SLH-951+ | 1.75 |

**MINIMUM CHARGE PER SHIPMENT IS $ 340.00** TAR-S- MINIMUM

P29U1001538

| DESCRIPTION | ITEM | $ COST |
|---|---|---|
| **MISCELLANEOUS SUPPLIES:** | | |
| 5Gal Ring & Bolt | SUP-5G-RING/BLT | 9.75/EACH |
| Slaked Lime (50 lbs) | SUP-LIME | 11.55/BAG |
| Rad-lite (vermiculite) | SUP-RADLITE | 12.40/BAG |
| Cement Solidification Bottles (solidifies 1 liter): | | |
| 1 - 12 Bottles | SUP-CMNT-1TO12 | 10.25/EACH |
| 13 - 24 Bottles | SUP-CMNT-13TO24 | 9.45/EACH |
| 25 + Bottles | SUP-CMNT-25+ | 8.65/EACH |
| 5Gal 7A Steel Drum Lid | SUP-5G-LID | 5.25/EACH |
| 55Gal 7A Steel Drum Lid | SUP-55G-LID | 13.15/EACH |
| 30Gal 7A Steel Drum Lid | SUP-30G-LID | 10.50/EACH |
| 55/30 Gal Rings for 7A Steel Drums | SUP-55/30G-RING | 10.50/EACH |
| Bolts & Nuts for 7A 55/30 rings | SUP-55/30G-N/B | 0.75/EACH |
| 5Gal Roll 4 mil Polybags | SUP-5G-POLY | VARIES |
| 55/30Gal Roll 4 mil Polybags | SUP-55/30G-POLY | VARIES |
| **LABELS:** | | |
| Fragile This End Up (Roll of 500) | SUP-LAB-FRAGILE | 54.10/ROLL |
| Category SP (Roll of 500) | SUP-LAB-CATSP | 68.25/ROLL |
| Category D (Roll of 500) | SUP-LAB-CATD | 68.25/ROLL |
| Category R (Roll of 500) | SUP-LAB-CATR | 68.25/ROLL |
| Radioactive Material, Low Specific Activity UN2912 (Roll of 500) | SUP-LAB-UN2912 | 63.00/ROLL |
| Radioactive Material, Instruments & Articles UN2911 (Roll of 500) | SUP-LAB-UN2911 | 63.00/ROLL |
| Radioactive Material, Limited Quantity, N.O.S. UN2910 (Roll of 500) | SUP-LAB-UN2910 | 63.00/ROLL |
| Radioactive Material, Special Form, N.O.S. UN2974 (Roll of 500) | SUP-LAB-UN2974 | 63.00/ROLL |
| Radioactive Material N.O.S. UN2982 (Roll of 500) | SUP-LAB-UN2982 | 63.00/ROLL |
| Radioactive White I Labels - UN2982 (Roll of 500) | SUP-LAB-UN2982W | 63.00/ROLL |
| Class A Unstable (Roll of 500) | SUP-LAB-CLA | 63.00/ROLL |
| EMPTY (Roll of 500) | SUP-LAB-EMPTY | 63.00/ROLL |
| CAUTION-RADIOACTIVE MATERIALS (w/SYMBOL) 6" x 6" | SUP-LAB-CAUTION | 0.35/EACH |
| CAUTION-RADIOACTIVE MATERIALS (INCIN) | SUP-LAB-INCIN | 0.70/EACH |
| Medical Waste (Roll of 500) | SUP-LAB-MEDICAL | 105.00/ROLL |

| DESCRIPTION | ITEM | $ COST |
|---|---|---|
| **CONTAINERS FOR WASTE:** | | |
| **B-25 Metal Box (95 cu. ft.)** | DEL-B-25-BOX | 675.00/EACH |
| **SDC (Storage/Decay/Collection) Containers:** | | |
| OPEN HEAD -(can also used for liquid overpacks): | | |
| 1Gal Steel SDC Pail (Not For Disposal) | DEL-1G-SDC | 10.75/EACH |
| 5Gal Steel SDC Pail (Not For Disposal) | DEL-5G-SDC | 13.50/EACH |
| 30Gal Steel SDC Drum (Not For Disposal) | DEL-30G-SDC | 61.15/EACH |
| 55Gal Steel SDC Drum (Not For Disposal) | DEL-55G-SDC | 79.75/EACH |
| 85Gal Steel SDC Drum (Not For Disposal) | DEL-85G-SDC | 109.65/EACH |
| CLOSED HEAD -(can also used for scintillation bulk liquids and inners for liquid overpacks): | | |
| 5Gal Steel SDC Pail with spout | DEL-5G-SDC-S | 13.50/EACH |
| 30Gal Steel SDC Drum with spout | DEL-30G-SDC-S | 61.15/EACH |
| **2R Containers:** | | |
| 6" X 14" | DEL-2R-6X14 | 395.36/EACH |
| 6" X 10" | DEL-2R-6X10 | 283.58/EACH |
| 4 X 6" | DEL-2R-4X6 | 210.20/EACH |
| 4 X 6" with 1" thick lead shield | DEL-2R-4X6X1 | 509.85/EACH |
| **37.5 Gal GRT-3 Fiber Container:** | | |
| Category D | DEL-37.5-FIBR-D | 27.30/EACH |
| **19.5 Gal ERT Fiber Container:** | | |
| Category D | DEL-19.5-FIBR-D | 17.05/EACH |
| **5 Gal YRT-1 Fiber Container:** | | |
| Category D | DEL-5G-FIBR-D | 12.80/EACH |

| DESCRIPTION | ITEM | $ COST |
|---|---|---|
| **CALIBRATION SERVICES:** | | |
| Pick up or delivery of Radiation Survey Meters WITH SERVICE: | | |
| Picked up with service | CAL-PU-N/C | NO CHARGE |
| Delivered with service | CAL-DEL-N/C | NO CHARGE |
| Pick up or delivery of Radiation Survey Meters WITH NO OTHER SERVICE: (**NOTE**: Pick up and delivery billed separately. Applicable zone charges billed extra.) | | |
| Per meter charge - on pick up | CAL-PU | 5.00/METER |
| Per meter charge - on delivery | CAL-DEL | 5.00/METER |
| Minimum Charge - on pick up | CAL-PU-MIN | 50.00/TRIP |
| Minimum Charge - on delivery | CAL-DEL-MIN | 50.00/TRIP |
| Calibration of Radiation Survey Meters (to 4 scales, shipping and/or pick up or delivery charges extra) | CAL-RECD | 65.00/METER |
| Calibration of Meters While Waiting (to 4 scales) | CAL-WAIT | 90.00/METER |
| Additional Scales, after 4 | ADD-SCALES | 12.00/SCALE |
| Meter Bench Charge/Estimate Inspection (If meter is repaired, bench charge is credited to repair) | CAL-BENCH | 30.00/METER |
| Labor Charge for Repair of Meter (Minimum labor charge is 1/2 hour) | CAL-LABOR | 60.00/HOUR |
| **CALIBRATION REPAIR PARTS:** (Parts billed extra - Cost of parts depend on manufacturer & availablilty) | | |

| DESCRIPTION | ITEM | $ COST |
|---|---|---|
| **HEALTH PHYSICS SERVICES:** | | |
| NDL Leak Test (includes two leak tests) | HPS-LEAKTST-TO2 | 120.00 MINIMUM |
| Each additional after two leak tests | HPS-LEAKTST-ADD | 60.00/TEST |
| Leak Test Kit | HPS-LEAKTST-KIT | 25.00/KIT |
| Gas Proportional Counting (windowless) wipes: | | |
| 1 to 10 | HPS-GAS-1TO10 | 12.50/SAMPLE |
| 11 to 20 | HPS-GAS-11TO20 | 11.50/SAMPLE |
| 21 + | HPS-GAS-21+ | 10.00/SAMPLE |
| Gross Alpha/Beta (water and soil) | HPS-ALP/BET-WS | 65.00/SAMPLE |
| Liquid Scintillation Spectrometry: | | |
| 1 to 5 | HPS-LSS-1TO5 | 20.00/SAMPLE |
| 6 to 10 | HPS-LSS-6TO10 | 18.50/SAMPLE |
| 11 to 15 | HPS-LSS-11TO15 | 14.50/SAMPLE |
| 16 to 20 | HPS-LSS-16TO20 | 12.50/SAMPLE |
| 21 to 30 | HPS-LSS-21TO30 | 10.00/SAMPLE |
| 31 to 50 | HPS-LSS-31TO50 | 9.50/SAMPLE |
| 51 + | HPS-LSS-51+ | 9.00/SAMPLE |
| Air Sampling Collection (plus analysis/field labor) | HPS-AIR | 65.00/SAMPLE |
| Germanium Gamma Spectroscopy (HPGe) | HPS-GSS-NONFLD | 110.00/SAMPLE |
| Germanium Gamma Spectroscopy (HPGe) Field Svc | HPS-GGS-FLD-1 | 550.00/1 SAMPLE |
| Additional Samples | HPS-GGS-FLD-ADD | 125.00/SAMPLE |
| Gamma Check on Equipment | HPS-GAMMACHECK | 10.00/EACH |
| G-M Ionization Chamber (per unit): | | |
| Survey meter rental fee - day | HPS-METER-DAY | 25.00/DAY |
| Survey meter rental fee- week | HPS-METER-WEEK | 75.00/WEEK |
| Survey meter rental fee - month | HPS-METER-MONTH | 195.00/MONTH |
| Class C or D Personal Protective Equipment | HPS-C/D-PPE | 40.00/OUTFIT/DAY |
| *Senior Health Physicist | HPS-LABOR-SHP | 110.00/HR |
| *Health Physicist | HPS-LABOR-HP | 95.00/HR |
| *Senior HP Tech | HPS-LABOR-SHPT | 65.00/HR |
| *HP Tech | HPS-LABOR-HPT | 50.00/HR |
| *Decon Tech | HPS-LABOR-DT | 40.00/HR |
| ***NOTE:** HP Services - For Holidays, Weekends, after working hrs, or on an Emergency Basis, charges are Time plus 1/2. Hourly rates are based on portal to portal. | HPS-LABOR-ADD | TIME PLUS 1/2 |

| DESCRIPTION | ITEM | $ COST |
|---|---|---|
| **SURCHARGES AND OTHER CHARGES:** (Surcharges and other charges may be billed separately after the container has been received by NDL) | | |
| **Additional Removal Charge on Conversion of previously purchased SDC drum:** | | |
| 5Gal Converted to SR/SX | ADD-5G-TOSCINT | 72.49/DRUM |
| 5Gal Converted to D or R | ADD-5G-TOD/R | 146.50/DRUM |
| 30Gal Converted to SR/SX | ADD-30G-TOSCINT | 73.85/DRUM |
| 30Gal Converted to D or R | ADD-30G-TOD/R | 308.85/DRUM |
| 55Gal Converted to SR/SX | ADD-55G-TOSCINT | 145.25/DRUM |
| 55Gal Converted to D or R | ADD-55G-TOD/R | 500.25/DRUM |
| 85Gal Converted to D or R | ADD-85G-TOD/R | 780.25/DRUM |
| **Additional Service Charge on Non-SDC drums purchased prior to 1996:** | | |
| 5Gal D or R | ADD-5G-NDLD | 125.00/DRUM |
| 30Gal D or R | ADD-30G-NDLD | 260.00/DRUM |
| 30 Gal SR/SX | ADD-30G-NDLS | 20.00/DRUM |
| 55Gal D or R | ADD-55G-NDLD | 415.00/DRUM |
| 55Gal SR/SX | ADD-55G-NDLS | 40.00/DRUM |
| **Zone Charges:** | | |
| Outside Service Area | ADD-ZONE | 25.00/ZONE |
| **Shipping & Handling Charges:** | | |
| For meters and/or NDL containers shipped via UPS or Common Carrier | ADD-SHIPPING | AS APPLICABLE |
| **Return Drum Charge:** | ADD-RETURN | 50.00/DRUM |
| **Intercompany Transfer (on site) Charge With Other Service (with no other service will be charged tariff rates):** | | |
| MAN WITH VEHICLE | ADD-TRANS | 60.00/HR/MAN |
| MINIMUM CHARGE | ADD-TRANS-MIN | 60.00/TRANSFER |
| **Travel Expenses** | ADD-TRAVEL | AS APPLICABLE |

| DESCRIPTION | CATEGORY | ITEM | $ COST |
|---|---|---|---|
| **NARM/NORM WASTE CONT'D:** | | | |
| **Class C, Sealed Sources:** | | | |
| 5Gal | W | REM-5G-CS-NARM | 1110.20/PAIL |
| 2 X 5Gal | W | REM-5G-CS-NM2X | 1097.75/PAIL |
| 3 X 5Gal | W | REM-5G-CS-NM3X | 1083.22/PAIL |
| 4 X 5Gal | W | REM-5G-CS-NM4X | 1070.70/PAIL |
| 5 X 5Gal | W | REM-5G-CS-NM5X | 1057.56/PAIL |
| >= 6 X 5Gal | W | REM-5G-CS-NM6+ | 1045.06/PAIL |
| 30Gal | W | REM-30G-CS-NARM | 2078.76/DRUM |
| 2 X 30Gal | W | REM-30G-CS-NM2X | 1969.50/DRUM |
| 3 X 30Gal | W | REM-30G-CS-NM3X | 1887.22/DRUM |
| 4 X 30Gal | W | REM-30G-CS-NM4X | 1832.35/DRUM |
| 5 X 30Gal | W | REM-30G-CS-NM5X | 1796.70/DRUM |
| >= 6 X 30Gal | W | REM-30G-CS-NM6+ | 1768.38/DRUM |
| 55Gal | W | REM-55G-CS-NARM | 3809.34/DRUM |
| 2 X 55Gal | W | REM-55G-CS-NM2X | 3510.85/DRUM |
| 3 X 55Gal | W | REM-55G-CS-NM3X | 3260.90/DRUM |
| 4 X 55Gal | W | REM-55G-CS-NM4X | 3089.55/DRUM |
| 5 X 55Gal | W | REM-55G-CS-NM5X | 2093.93/DRUM |
| >= 6 X 55Gal | W | REM-55G-CS-NM6+ | 1985.10/DRUM |

**SITE USE PERMITS**:

All eligible customers utilizing the NDL Radioactive Categories of D and/or R for land burial at the Barnwell, SC site must obtain a Transport Permit from the SC Dept.of Health & Environmental Control. Permits are to be obtained directly from the permitting agencies (i.e.NDL does not bill for permits). NDL has blank applications and will provide requested assistance at no charge. The Richland, WA site is also available to out-of-compact generators for radium disposal, on a case-by-case basis.

| | |
|---|---|
| **Barnwell, SC: Permit up to a max of 75 cu.ft.** | 200.00 |
| **Barnwell, SC: Permit for 75+ cu.ft.** | 1500.00 |
| **Richland, WA: Permit for < 50 cu. ft.** | 375.00 |
| **Richland, WA: Permit for > 50 cu. ft. < 500 cu.ft.** | 750.00 |
| **Richland, WA: Permit for > 500 cu. ft. < 1000 cu.ft.** | 1875.00 |

## NARM/NORM WASTE FOR DISPOSAL AT THE RICHLAND, WASHINGTON, SITE:

**Class A, Unstable:**

| | | | |
|---|---|---|---|
| 5Gal | W | REM-5G-AU-NARM | 738.00/PAIL |
| 2 X 5Gal | W | REM-5G-AU-NM2X | 725.50/PAIL |
| 3 X 5Gal | W | REM-5G-AU-NM3X | 713.20/PAIL |
| 4 X 5Gal | W | REM-5G-AU-NM4X | 700.84/PAIL |
| 5 X 5Gal | W | REM-5G-AU-NM5X | 688.16/PAIL |
| >= 6 X 5Gal | W | REM-5G-AU-NM6+ | 675.45/PAIL |
| 30Gal | W | REM-30G-AU-NARM | 1333.36/DRUM |
| 2 X 30Gal | W | REM-30G-AU-NM2X | 1208.77/DRUM |
| 3 X 30Gal | W | REM-30G-AU-NM3X | 1184.50/DRUM |
| 4 X 30Gal | W | REM-30G-AU-NM4X | 1157.95/DRUM |
| 5 X 30Gal | W | REM-30G-AU-NM5X | 1124.20/DRUM |
| >= 6 X 30Gal | W | REM-30G-AU-NM6+ | 1099.78/DRUM |
| 55Gal | W | REM-55G-AU-NARM | 2288.10/DRUM |
| 2 X 55Gal | W | REM-55G-AU-NM2X | 2138.80/DRUM |
| 3 X 55Gal | W | REM-55G-AU-NM3X | 2042.55/DRUM |
| 4 X 55Gal | W | REM-55G-AU-NM4X | 1987.40/DRUM |
| 5 X 55Gal | W | REM-55G-AU-NM5X | 1933.76/DRUM |
| >= 6 X 55Gal | W | REM-55G-AU-NM6+ | 1882.40/DRUM |

**Class A, Sealed Sources:**

| | | | |
|---|---|---|---|
| 5Gal | W | REM-5G-AS-NARM | 873.40/PAIL |
| 2 X 5Gal | W | REM-5G-AS-NM2X | 860.91/PAIL |
| 3 X 5Gal | W | REM-5G-AS-NM3X | 848.41/PAIL |
| 4 X 5Gal | W | REM-5G-AS-NM4X | 835.75/PAIL |
| 5 X 5Gal | W | REM-5G-AS-NM5X | 823.22/PAIL |
| >= 6 X 5Gal | W | REM-5G-AS-NM6+ | 810.55/PAIL |
| 30Gal | W | REM-30G-AS-NARM | 1428.76/DRUM |
| 2 X 30Gal | W | REM-30G-AS-NM2X | 1336.02/DRUM |
| 3 X 30Gal | W | REM-30G-AS-NM3X | 1261.15/DRUM |
| 4 X 30Gal | W | REM-30G-AS-NM4X | 1112.45/DRUM |
| 5 X 30Gal | W | REM-30G-AS-NM5X | 1086.45/DRUM |
| >= 6 X 30Gal | W | REM-30G-AS-NM6+ | 1061.45/DRUM |
| 55Gal | W | REM-55G-AS-NARM | 2614.34/DRUM |
| 2 X 55Gal | W | REM-55G-AS-NM2X | 2464.25/DRUM |
| 3 X 55Gal | W | REM-55G-AS-NM3X | 2359.10/DRUM |
| 4 X 55Gal | W | REM-55G-AS-NM4X | 2284.35/DRUM |
| 5 X 55Gal | W | REM-55G-AS-NM5X | 2236.12/DRUM |
| >= 6 X 55Gal | W | REM-55G-AS-NM6+ | 2201.75/DRUM |

## RADIOACTIVE WASTE DISPOSAL AT BARNWELL SITE, CONT'D.:

| DESCRIPTION | ITEM | $ COST |
|---|---|---|
| **CATEGORY R:** | | |
| **NOTE: CATEGORY R (BIOLOGICAL WASTE) SUBJECT TO $1.25 PER POUND REMOVAL CHARGE IN ADDITION TO CATEGORY D DISPOSAL COSTS. DELIVERY PRICES ARE THE SAME AS CATEGORY D, PLUS ADDITIONAL CHARGE FOR OVERPACK KIT (SHOWN BELOW).** | | |
| Category R on Delivery - SAME AS CATEGORY D PRICING, PLUS OVERPACK KITS AS FOLLOWS: | | |
| OVERPACK KITS: (NOTE: LIME MUST BE ORDERED SEPARATELY) | | |
| 5Gal Kit (1 polyliner) | ***** | NO CHARGE |
| 55Gal Kit (30Gal SDC drum, 1 bag of vermiculite, 2 polyliners) | SUP-55G-R | 73.55 PER KIT |
| 85Gal Kit (55Gal SDC drum, 2 bags of vermiculite, 2 polyliners) | SUP-85G-R | 104.55 PER KIT |
| Category R on Removal - FOR ALL WEIGHTS: | REM-R-ADD | (SAME AS CAT D ON REMOVAL- PLUS ADDITONAL CHARGE OF $ 1.25 PER POUND) |
| **SURCHARGES: ALL CATEGORIES:** | | |
| Millicurie Surcharge - All Weights - Per Manifest | ADD-MILLI | 0.45/MILLICURIE |
| Dose Rate Surcharge - Dose level 200 mR/hr - 1 R/hr | ADD-DOSE | 0.40/LB |
| Asbestos - All Weights | ADD-ASBESTOS | 7.50/LB |
| **HIGH INTEGRITY CONTAINERS & DISPOSAL COSTS FOR BARNWELL SITE:** | ***** | CALL FOR QUOTE |
| **BULK DAW DISPOSAL:** | ***** | CALL FOR QUOTE |

**RADIOACTIVE WASTE DISPOSAL AT BARNWELL SITE:**
( NO CREDIT GIVEN FOR NON-NDL DRUMS - IN AND OUT PRICE CHARGED ON REMOVAL .)

NOTE: DISPOSAL COSTS BASED ON WEIGHT OF CONTAINER PLUS MILLICURIE SURCHARGE. TOTAL COST BASED ON CURRENT PRICING AND SUBJECT TO ADDITIONAL INCREMENTAL CHARGES FOR OLDER OR NON-NDL CONTAINERS (SEE PAGE 6 - SURCHARGES AND OTHER CHARGES).

| DESCRIPTION | WEIGHT | ITEM | $ COST | $TOTAL |
|---|---|---|---|---|
| **CATEGORY D:** | | | | |
| 5Gal on Delivery | ----- | DEL-5G-D | 150.00 | |
| 5Gal on Removal: | <= 50 | REM-5G-D | 530.00 | 680.00 |
| | > 50 | REM-5G-D1 | 830.00 | 980.00 |
| 30Gal on Delivery | ----- | DEL-30G-D | 350.00 | |
| 30Gal on Removal: | <= 200 | REM-30G-D | 1515.00 | 1865.00 |
| | 201-400 | REM-30G-D1 | 1980.00 | 2330.00 |
| | 401-600 | REM-30G-D2 | 2810.00 | 3160.00 |
| | 601-800 | REM-30G-D3 | 3850.00 | 4200.00 |
| | > 800 | ***** | CALL FOR QUOTE | |
| 55Gal on Delivery | ----- | DEL-55G-D | 550.00 | |
| 55Gal on Removal: | <= 200 | REM-55G-D | 2570.00 | 3120.00 |
| | 201-400 | REM-55G-D1 | 2950.00 | 3500.00 |
| | 401-600 | REM-55G-D2 | 3450.00 | 4000.00 |
| | 601-800 | REM-55G-D3 | 3950.00 | 4500.00 |
| | 801-1000 | REM-55G-D4 | 4700.00 | 5250.00 |
| | > 1000 | ADD-55G-D-1000+ | $ 5.20/LB OVER 1000 (REMOVAL OF $4700.00 PLUS ADDITONAL CHARGE OF $ 5.20 PER POUND OVER 1000 LIMIT) | |
| 85Gal on Delivery | ----- | DEL-85G-D | 850.00 | |
| 85Gal on Removal: | ALL | REM-85G-D | 4000.00 | 4850.00 |

| DESCRIPTION | CATEGORY | ITEM | $ COST |
|---|---|---|---|
| **OIL & AQUEOUS LIQUIDS FOR INCINERATION:** | | | |
| **(Must be double walled. Pricing based on gross weight of contianers and includes metal melt of inner & outer container):** | | REM-OIL | 7.75/LB |
| | | REM-AQL | 7.75/LB |
| **METAL MELT** | | MELT-METAL | 6.25/LB |
| **DRY & BIOLOGICAL WASTE FOR INCINERATION / STEAM REFORMING & DISPOSAL :** | | | |
| Dry Waste for Incineration & Disposal (fiber boxes, based on gross weight of package) | D | REM-D-INCIN/D | 10.80/LB |
| Dry Waste for Steam Reforming & Disposal (metal containers, based on net weight of material, cost of metal melt of container additional) | D | REM-D-STEAM/D | 25.00/LB |
| Biological Waste for Steam Reforming & Disposal (metal containers, based on net weight of material, cost of metal melt of container additional) | R | REM-R-STEAM/D | 42.00/LB |
| **LEAD DECON:** < 20K dpm and/or < 25 mR/hr: | | REM-LEAD | 6.00/LB |
| Higher levels: | | ***** | CALL FOR QUOTE |
| **WASTE STORAGE:** Generators utilizing NDL's waste storage services must be pre-approved and have a signed contract in place | | | |
| **Monthly Charge** | | STORAGE | 13.90/CU.FT/MO. |
| **Minimum Charge** | | STORAGE-MIN | 10.00/MO. |

**SULZER METCO**

Sulzer Metco (US) Inc.
325 Duffy Avenue
Hicksville, NY 11801
Phone: (516) 338-2572
Fax: (516) 338-2590

## Telefax

Place, date: 11/25/96

To: Peter Pastorelli

From: Marilynn Block

Total pages:

Subject: PO 204059

Please forward item 2 (wipes) attn: C. Conroy at address listed on P.O.

Contact Ms Conroy 516-338-2337 to arrange for drum pick up -

# SULZER METCO

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone: (516) 334-1300
Fax: (516) 338-2488

July 31, 1995

EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348

Subject: Toxic Chemical Release Inventory
Reporting Form R

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our Prospect Avenue and Miller Place facilities.

Please note that as of September 30, 1994, the three properties on Long Island owned by the Perkin-Elmer Corporation, doing business as the Metco division of Perkin-Elmer, were sold by Perkin-Elmer to Sulzer Metco (US), Inc., a Delaware Corporation having a principal place of business at the Prospect Avenue facility. We hope that our delayed reporting has not caused any inconvenience.

Please call me if you have any questions or require clarification.

Very truly yours,

Joseph D. Reardon, Ph.D.
Global Quality
Phone: (516) 338-2316
FAX: (516) 338-2336

JR/clc
Enclosure

c: Mario H. Kyd, Sulzer Metco
Daniel Moraschetti, Sulzer Metco
Constance L. Conroy, Sulzer Metco



METCO AMDRY

# METCO *PERKIN ELMER*

## Material Safety Data Sheet


**METCO PERKIN-ELMER**

**1101 Prospect Avenue**
**PO Box 1006**
**Westbury, NY 11590-0201**
**Phone: (516) 334-1300**


**Product:** METCO SPRASTEEL LS WIRE

**MSDS No.:** METCO / 50-227
**Revision No.:** 3
**Revision Date:** June 8, 1993
**Original Date of Issue:** September 7, 1987

**EMERGENCY CONTACT: CHEMTREC** 800-424-9300
**CALLS OUTSIDE THE UNITED STATES:** 202-483-7616

## SECTION 1 MATERIAL IDENTIFICATION

**Trade/Material Name:** METCO SPRASTEEL LS WIRE

**Description:** Thermal Spray Metallic Wire

**Other Designation:** ALLOY STEEL WIRE

## SECTION II COMPOSITION AND TOXICITY

| Composition | % | CAS# | OSHA PEL | ACGIH TLV | Toxicity |
|---|---|---|---|---|---|
| Iron | 91 | 7439-89-6 | 10 mg/m³ TWA total particulate $Fe_2O_3$ fume, as Fe | 5 mg/m³ TWA $Fe_2O_3$ fume, as Fe | |
| Manganese * | 2 | 7439-96-5 | 5 mg/m³ CEIL compounds 1 mg/m³ TWA fume 3 mg/m³ STEL fume, as Mn | 5 mg/m³ TWA compounds 1 mg/m³ TWA fume 3 mg/m³ STEL fume, as Mn | |
| Nickel * | 4 | 7440-02-0 | 1 mg/m³ TWA | 1 mg/m³ TWA | |
| Chromium * | 1.5 | 7440-47-3 | 1 mg/m³ TWA | 0.5 mg/m³ TWA | |
| Molybdenum | 1.5 | 7439-98-7 | 10 mg/m³ TWA total dust Insoluble as Mo | 10 mg/m³ TWA Insoluble as Mo | |

* Indicates toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments & Reauthorization Act (SARA) & supplier notification requirements (40CFR Part 372).

** Contains no asbestos and <1% crystalline silica.

## SECTION III — PHYSICAL DATA

| | | | |
|---|---|---|---|
| **Boiling Point:** | N/A | **Specific Gravity ($H_2O$ = 1):** | 7.8 |
| **Vapor Pressure (mmHg):** | N/A | **Melting Point:** | 2800 - 2850° F |
| **Vapor Density (Air=1):** | N/A | **Percentage Volatiles:** | N/A |
| **Solubility in water (%):** | Negative | **Evaporation Rate:** | N/A |
| **Appearance and Odor:** | Wire, no odor | **pH of Solution:** | N/A |

## SECTION IV — FIRE AND EXPLOSION HAZARD DATA

**Flash Point (Method Used):** NONE

**Flammable Limits:** **LEL %:** N/A **UEL%:** N/A

**Extinguishing Media:** $CO_2$ or dry chemical extinguisher, do not use water.

**Special Fire Fighting Procedures:** Treat as a metallic fire. Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing if involved in a fire.

**Unusual Fire and Explosive Hazards:** Moderate fire hazard in the form of dust when exposed to flame. Iron and chromium may ignite if airborne in the presence of an ignition source. Fine metal dusts of molybdenum are flammable and may explode if exposed to heat, flame or oxidizers.

## SECTION V — REACTIVITY DATA

**Material is stable. Hazardous polymerization will not occur.**

**Incompatibility (Materials to Avoid):** Chlorine, turpentine, oxidizers, acetylene, magnesium, active metals. Molybdenum may react with water to form explosive hydrogen gas.

**Hazardous Decomposition Products:** Ozone and nitric acid are formed by the plasma flame (similar to welding fumes). This action is independent of the metal powder. When molybdenum is heated to decomposition, toxic fumes of molybdenum are emitted.

## SECTION VI — HEALTH HAZARD DATA

| COMPONENTS | SUMMARY OF RISKS |
|---|---|
| IRON: | Hazard by inhalation. Inhalation may cause Siderosis (benign pneumoconiosis). |
| | Target Organ(s): Lungs. |
| MANGANESE: | Hazard by inhalation. Chronic inhalation may cause manganism characterized by psychosis and neurological impairment. |
| | Target Organ(s): Central Nervous System. |

## SECTION VI — HEALTH HAZARD DATA — CONTINUED

NICKEL: Hazard by inhalation and skin contact. Inhalation may cause cancers of the lung and nasal sinuses. Skin contact may cause dermatitis. Nickel is found to be a potential carcinogen in IARC Monographs. Nickel is listed in the NTP Annual Report on Carcinogens.

Target Organ(s): Respiratory tract, skin.

CHROMIUM: Hazard by inhalation and skin contact. Inhalation may cause pneumoconiosis and mucous membrane irritation or ulceration. Skin contact may cause dermatitis, sensitization or chrome lesions. A portion of metallic chromium may be converted during the thermal spray process to hexavalent chromium. Exposure to hexavalent chromium may cause bronchogenic, lung and stomach cancers.

Target Organ(s): Lungs, skin.

MOLYBDENUM: Hazard by inhalation, ingestion, skin and eye contact. Inhalation may cause respiratory tract irritation and pneumoconiosis. Inhalation of metallic dust from alloys and carbides may cause hard metal lung disease. Ingestion may cause anemia, liver and kidney fatty degeneration. Skin and eye contact may cause irritation to the skin and eyes. A portion of metallic molybdenum may be converted during the thermal spray process to molybdenum oxide.

Target Organ(s): Respiratory tract, kidneys, liver, blood forming organs, skin, eyes.

**Medical Conditions Which May be Aggravated by Contact:** Consult a physician.

**Primary Entry Route(s):** Inhalation, ingestion, skin, eye contact.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**Eye Contact:** Irritation.

**Skin Contact:** Possible dermatitis.

**Inhalation:** Irritation, pneumoconiosis.

**Ingestion:** Possible irritation.

### FIRST AID

**Eye Contact:** Flush eye with sufficient amounts of water. If irritation persists, consult a physician.

**Skin Contact:** Wash with soap and water.

**Inhalation:** Expose to fresh air. Consult a physician if irritation or respiratory distress persists.

**Ingestion:** Consult a physician.

## SECTION VII — SPILL, LEAK AND DISPOSAL PROCEDURES

**Spill/Leak Procedures:** Not applicable to wire.

**Waste Management and Disposal:** Empty product containers, product waste and cleaning media should be stored and disposed of according to the appropriate local, state and federal regulatory guidelines.

## SECTION VIII SPECIAL PROTECTION INFORMATION

### PERSONAL PROTECTIVE EQUIPMENT

**Goggles:** The following lens shades are recommended for the process indicated. Combustion spraying shade #5, plasma spraying up to 40 kW shade #9, 40-60 kW shade #10 and greater than 60 kW shade #11. Goggles may be appropriate during other phases of product handling.

**Gloves:** Aluminized gloves are to be worn during the plasma spray process. Rubber or other appropriate gloves may be worn as necessary during other phases of product handling to avoid excessive skin contact.

**Respirator:** A respirator approved by NIOSH with filter cartridges approved for dust/fumes/mists should be worn at all times during the thermal spray process to protect the operator from exposure to dust and fumes. Respirators may also be worn when product handling generates dust.

**Clothing/Equipment:** Ear protection must be worn when the operator is subjected to excessive noise levels. (Refer to the appropriate regulatory guidelines.) An aluminized apron is to be worn during the plasma spray process. Other appropriate protective clothing may be worn as necessary during product handling to avoid excessive contact with the skin.

### WORKPLACE CONSIDERATIONS

**Ventilation:** Product should be used with the appropriate local exhaust ventilation provided.

**Safety Stations:** Eye wash station(s) is/are recommended.

**Other:** Wash facilities are recommended.

## SECTION IX HANDLING AND STORAGE PRECAUTIONS

**Storage/Handling:** Store away from incompatibles. Store product containers in a well-ventilated, clean, cool and dry area. Store in a manner to minimize punctures and breakage of containers.

**Other Precautions:** Avoid ingestion, inhalation and excessive skin contact. Avoid contact of powder with water and oxidizers.

*While this information is furnished in good faith, no guaranty is made as to accuracy. This material is for the Thermal Spraying Process, and relevant instructions should be consulted before use. The user assumes all risk in connection with the use of this material. METCO PERKIN-ELMER shall in no event be liable for special, incidental or consequential damages in connection with this information, or for any damage or injury caused by this material if used for any other purpose than the Thermal Spray Process, or if proper safety and health practices are not followed.*

# METCO
***PERKIN ELMER***

# METCO CLEANING SOLVENT

NON-FLAMMABLE SOLVENT EXCELLENT FOR CLEANING METALS
CONTAMINATED WITH OILS AND GREASES

Especially prepared for degreasing and cleaning metal surfaces before metallizing.
Use cold. Do not use for vapor phase degreasing.
Wipe or brush, using rags or brush.

**HAZARD NOTICE:** This material is for the thermal spraying process. Consult the METCO Instruction Manual, the Material Safety Data Sheet, and applicable Federal and local jurisdiction safety and health regulations before utilizing this product. This product should not be ingested; inhalation and skin contact should be avoided. Local ventilation, skin and respiratory protection should be used during handling. Good housekeeping and personal hygiene should be practiced. Some individuals may show unusual sensitivity to exposure. Failure to observe proper practices may result in health hazards. Use cold. Do not use for vapor phase degreasing. Do not pour used solvent back in can. Do not use on rubber or plastics. Do not use in oxygen systems. Do not contaminate with water. Do not vaporize in presence of ignition sources.

**HARMFUL OR FATAL IF INHALED. HARMFUL OR FATAL IF SWALLOWED.**
**CONTAINS 1,1,1-TRICHLOROETHANE.**
**USE ONLY WITH ADEQUATE VENTILATION. FOR INDUSTRIAL USE ONLY.**

**Specific Effects Of Overexposure:**
**1,1,1-Trichloroethane:** Hazard by inhalation, ingestion, skin and eye contact. Inhalation may cause an anesthetic effect and has been shown to cause pathological changes in the liver and lungs of some animal species. Inhalation or ingestion may produce symptoms of dizziness, drowsiness, distorted perceptions, motor activity changes, irritability, aggression, diarrhea, nausea, vomiting or other gastrointestinal tract changes. Narcotic in high concentrations. Cardiac sensitization can occur in high exposures. Long term overexposure may cause liver/kidney damage. Skin contact may cause irritation, defatting of the skin causing redness and scaliness. Eye contact may produce severe irritation.
**Target Organs:** Cardiovascular system, Central nervous system, gastrointestinal tract, liver, kidney, skin, eyes.

**In Case of Fire:**
Extinguishing Media: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or foam).
Unusual Fire and Explosion Hazards: 1,1,1-Trichloroethane is moderately flammable at higher temperatures; no flash point when tested in conventional closed tester at ordinary temperatures.
Special Fire Fighting Procedures: Fire fighters should wear a NIOSH/MSHA approved pressure-demand, self-contained breathing apparatus for possible exposure to hydrogen chloride and possible traces of phosgene. When heated to decomposition can emit highly toxic phosgene, hydrogen chloride and chlorine. May also be decomposed slowly by contact with water to hydrogen chloride. Under proper conditions can undergo hazardous reactions with aluminum oxide and heavy metals; dinitrogen tetraoxide; inhibitors; metals; sodium hydroxide; nitrogen tetroxide; oxygen.

**In Case of Spill or Leak:**
Immediately evacuate the area and provide maximum ventilation. Unprotected personnel should move upwind of spill. Only personnel equipped with proper respirator and skin/eye protection should be permitted in area. Dike areas to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover or absorb spilled material with sawdust or vermiculite and sweep into closed containers for disposal. After all visible traces have been removed, thoroughly wet vacuum the area. DO NOT flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc., as necessary and place in closed containers for disposal.

**FOR EMERGENCY ASSISTANCE CALL**
**CALL CHEMTREC - DAY OR NIGHT**
**1-800-424-9300**

**Special Protection Information:**
Adequate local/general ventilation should be provided when using this product. Appropriate respiratory, skin, eye and hand protection should be utilized when using this product. Avoid prolonged or repeated contact with skin. Do not take internally. CALL PHYSICIAN IMMEDIATELY, if swallowed. High concentrations of vapors are anesthetic and dangerous to life. NIOSH/MSHA approved pressure-demand, self-contained breathing apparatus must be used where thorough ventilation is not possible. Eye irritation and dizziness are signs of inadequate ventilation and dangerous concentration.

**Special Precautions:**
Precautions to be Taken in Handling and Storing: Store away from incompatibles. Keep containers closed when not in use. Do not store in open, unlabeled or mislabeled containers. Do not transfer contents to bottles or other unlabeled containers. Store in a cool and dry area. Do not use in poorly ventilated or confined areas. Liquid oxygen or other strong oxidants may form explosive mixtures with METCO Cleaning Solvent. This material or its vapors when in contact with flames, hot glowing surfaces or electric arcs can be decomposed to form hydrogen chloride gas and traces of phosgene.
Other Precautions: Avoid oral ingestion and excessive skin contact. Do not drink, eat or smoke in work areas. Clean hands thoroughly after using especially before eating. Avoid prolonged or repeated breathing of vapors. High vapor concentrations can cause dizziness or unconsciousness. Long term overexposure may cause liver/kidney damage.
DO NOT FLAME CUT, BRAZE OR WELD EMPTY CONTAINERS.
KEEP CONTAINERS CLOSED WHEN NOT IN USE.
Waste Disposal Method: Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. Contaminated sawdust, vermiculite or porous surface must be disposed of in a permitted hazardous waste management facility. Recovered liquids may be reprocessed or incinerated or must be treated in a permitted waste management facility. Dispose of the chemical materials and/or their containers in accordance with federal, state or local laws/regulations regarding disposal.

**WARNING:** Contains Methyl Chloroform, a substance that harms public health and environment by destroying ozone in the upper atmosphere.

**USING THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD CLASSIFICATIONS, THIS PRODUCT'S HAZARD CLASSIFICATION IS:**

| | |
|---|---|
| HEALTH | 3 |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | See the MSDS for proper personal protective equipment. |

Flash Point: None.

UN2831, ORM-A

*While this information is furnished in good faith, no guaranty is made as to accuracy. This material is for the Thermal Spraying Process, and relevant instructions should be consulted before use. The user assumes all risk in connection with the use of this material. METCO PERKIN-ELMER shall in no event be liable for special, incidental or consequential damages in connection with this information, or for any damage or injury caused by this material if used for any other purpose than the Thermal Spray Process, or if proper safety and health practices are not followed.*

U.S. EPA 1990 CALENDAR
TOXIC CHEMICAL RELEASE INVENT. REPORT
SEC. 313 FORM R

# METCO *PERKIN ELMER*

## Material Safety Data Sheet

**METCO PERKIN-ELMER**

**1101 Prospect Avenue**
**PO Box 1006**
**Westbury, NY 11590-0201**
**Phone: (516) 334-1300**

**Product:** METCO 445

**MSDS No.:** METCO / 50-175
**Revision No.:** 4
**Revision Date:** May 3, 1993
**Original Date of Issue:** September 7, 1987

**EMERGENCY CONTACT: CHEMTREC** **800-424-9300**
**CALLS OUTSIDE THE UNITED STATES:** **202-483-7616**

## SECTION 1 MATERIAL IDENTIFICATION

**Trade/Material Name:** METCO 445

**Description:** Metal Powder

**Other Designation:** SELF-BONDING "ALUMINUM BRONZE" POWDER

## SECTION II COMPOSITION AND TOXICITY

| Composition | % | CAS# | OSHA PEL | ACGIH TLV | Toxicity |
|---|---|---|---|---|---|
| Aluminum * | 10 | 7429-90-5 | 15 mg/m³ TWA total dust<br>5 mg/m³ TWA respirable<br>5 mg/m³ TWA fume | 10 mg/m³ TWA metal dust<br>5 mg/m³ TWA fume | |
| Copper * | 89 | 7440-50-8 | 0.1 mg/m³ TWA fume<br>1 mg/m³ TWA dusts and mists, as Cu | 0.2 mg/m³ TWA fume<br>1 mg/m³ TWA dusts and mists, as Cu | |
| Organic Binder | 1 | N/A | N/A | N/A | |

* Indicates toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments & Reauthorization Act (SARA) & supplier notification requirements (40CFR Part 372).

** Contains no asbestos and <1% crystalline silica.

## SECTION III — PHYSICAL DATA

| | | | |
|---|---|---|---|
| **Boiling Point:** | N/A | **Specific Gravity ($H_2O$ = 1):** | 3.5 |
| **Vapor Pressure (mmHg):** | N/A | **Melting Point:** | 1300-1900° F |
| **Vapor Density (Air=1):** | N/A | **Percentage Volatiles:** | N/A |
| **Solubility in water (%):** | Negative | **Evaporation Rate:** | N/A |
| **Appearance and Odor:** | Powder, no odor | **pH of Solution:** | N/A |

## SECTION IV — FIRE AND EXPLOSION HAZARD DATA

| | |
|---|---|
| **Flash Point (Method Used):** NONE | **Flammable Limits:** **LEL %:** N/A **UEL%:** N/A |

**Extinguishing Media:** Use Class D Fire Extinguisher.

**Special Fire Fighting Procedures:** Treat as a metallic fire.

**Unusual Fire and Explosive Hazards:** Fine metal dusts are flammable and may explode when exposed to heat, flame or oxidizers. Aluminum is a flammable solid; do not expose to water or moisture.

## SECTION V — REACTIVITY DATA

**Material is stable. Hazardous polymerization will not occur.**

**Incompatibility (Materials to Avoid):** Oxidizers, Acids, Sulfur, $Ni(NO_3)_2$, Combustibles.

**Hazardous Decomposition Products:** Ozone and nitric acid are formed by the plasma flame (similar to welding fumes). This action is independent of metal powder. Thermal decomposition products of the organic binder include carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides.

## SECTION VI — HEALTH HAZARD DATA

| COMPONENTS | SUMMARY OF RISKS |
|---|---|
| ALUMINUM: | Hazard by inhalation, skin and eye contact. Inhalation may cause pneumoconiosis. Pulmonary, skin and eye irritant due to abrasive action. Under normal use conditions, aluminum oxide may be formed.<br><br>Target Organ(s): Lungs, skin, eyes. |
| COPPER: | Hazard by inhalation, skin and eye contact. Inhalation may cause irritation to the upper respiratory tract and the nasal mucous membranes. Skin contact may cause discoloration of the hair and skin. Eye contact may cause irritation to the eyes.<br><br>Target Organ(s): Respiratory tract, skin, eyes. |
| ORGANIC BINDER: | Hazard by inhalation, ingestion, skin and eye contact. Inhalation and ingestion may cause respiratory tract irritation. Skin and eye contact may cause irritation to the skin and eyes.<br><br>Target Organ(s): Respiratory tract, skin, eyes. |

## SECTION VI HEALTH HAZARD DATA CONTINUED

**Medical Conditions Which May be Aggravated by Contact:** Consult a physician.

**Primary Entry Route(s):** Inhalation, ingestion, skin, eye contact.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**Eye Contact:** Irritation.

**Skin Contact:** Possible irritation.

**Inhalation:** Irritation, pneumoconiosis.

**Ingestion:** Possible irritation.

### FIRST AID

**Eye Contact:** Flush eye with sufficient amounts of water. If irritation persists, consult a physician.

**Skin Contact:** Wash with soap and water.

**Inhalation:** Expose to fresh air. Consult a physician if irritation or respiratory distress persists.

**Ingestion:** Consult a physician.

## SECTION VII SPILL, LEAK AND DISPOSAL PROCEDURES

**Spill/Leak Procedures:** Vacuum loose powder only with vacuums equipped with HEPA filtration. Vacuums appropriate for use with metallic dusts should be utilized. Wipe the area clean. Do not use water for clean up operations. Do not sweep. Avoid generating airborne dust.

**Waste Management and Disposal:** Empty product containers, product waste and cleaning media should be stored and disposed of according to the appropriate local, state and federal regulatory guidelines.

## SECTION VIII SPECIAL PROTECTION INFORMATION

### PERSONAL PROTECTIVE EQUIPMENT

**Goggles:** The following lens shades are recommended for the process indicated. Combustion spraying shade #5, plasma spraying up to 40 kW shade #9, 40-60 kW shade #10 and greater than 60 kW shade #11. Goggles may be appropriate during other phases of product handling.

**Gloves:** Aluminized gloves are to be worn during the plasma spray process. Rubber or other appropriate gloves may be worn as necessary during other phases of product handling to avoid excessive skin contact.

**Respirator:** A respirator approved by NIOSH with filter cartridges approved for dust/fumes/mists should be worn at all times during the thermal spray process to protect the operator from exposure to dust and fumes. Respirators may also be worn when product handling generates dust.

## SECTION VIII SPECIAL PROTECTION INFORMATION CONTINUED

**Clothing/Equipment:** Ear protection must be worn when the operator is subjected to excessive noise levels. (Refer to the appropriate regulatory guidelines.) An aluminized apron is to be worn during the plasma spray process. Other appropriate protective clothing may be worn as necessary during product handling to avoid excessive contact with the skin.

**WORKPLACE CONSIDERATIONS**

**Ventilation:** Product should be used with the appropriate local exhaust ventilation provided.

**Safety Stations:** Eye wash station(s) is/are recommended.

**Other:** Wash facilities are recommended.

## SECTION IX HANDLING AND STORAGE PRECAUTIONS

**Storage/Handling:** Store away from incompatibles. Store product containers in a well-ventilated, clean, cool and dry area. Store in a manner to minimize punctures and breakage of containers.

**Other Precautions:** Avoid ingestion, inhalation and excessive skin contact. Avoid contact of powder with water and oxidizers.

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**PERKIN ELMER**

The Perkin-Elmer Corporation
Metco Division
1101 Prospect Avenue
Westbury, New York 11590
Phone (516) 334-1300
Fax (516) 334-6692
Telex 967759

May 9, 1989

N.Y. Dept. of Environmental
Conservation
Bureau of Spill Prevention
and Response
Room 326
50 Wolf Road
Albany, NY 12233-3510

Ref: SARA TITLE III - Tier II Reports

Dear Sir/Madam:

Enclosed are the Tier II reports for our facilities. We hope that our delayed reporting has not caused any inconvenience. We were not aware of the requirements due to unexpected losses in key personnel.

If we could be of further assistance, please contact me.

Very truly yours,

Patrick A. Tighe
Supervisor
Facility Administration

PAT:eb
Enclosure (5)
cc: A. Mazzone

**PERKIN ELMER**

The Perkin-Elmer Corporation
Metco Division
1101 Prospect Avenue
Westbury, New York 11590
Phone (516) 334-1300
Fax (516) 334-6692
Telex 967759

May 9, 1989

Local Emergency
Planning Committee
c/o Civil Preparedness
Office
140 15th Street
Mineola, NY 11501

Ref: SARA TITLE III - Tier II Reports

Dear Sir/Madam:

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cc: A. Mazzone

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Metco Division
1101 Prospect Avenue
Westbury, New York 11590
Phone (516) 334-1300
Fax (516) 334-6692
Telex 967759

May 9, 1989

State Emergency
Response Commission
c/o State Emergency
Management Office
Building 22, State Campus
Albany, NY 12226-5000

Ref: SARA TITLE III - Tier II Reports

Dear Sir/Madam:

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Enclosure (5)
cc: A. Mazzone

PERKIN ELMER

The Perkin-Elmer Corporation
Metco Division
1101 Prospect Avenue
Westbury, New York 11590
Phone (516) 334-1300
Fax (516) 334-6692
Telex 967759

May 9, 1989

Environmental Protection Agency
P.O. Box 70266
Washington, DC 20024-0266

Attention: Toxic Chemical Release Inventory

Ref: SARA TITLE III - Tier II Reports

Dear Sir/Madam:

Enclosed are the Tier II reports for our facilities. We hope that our delayed reporting has not caused any inconvenience. We were not aware of the requirements due to unexpected losses in key personnel.

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Facility Administration

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Enclosure (5)
cc: A. Mazzone

Page 1 of 2 pages
Form Approved OMB No 2050-0072

**Tier Two**
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**
*Specific Information by Chemical*

**Facility Identification**

Name: METCO DIV. PERKIN-ELMER CORP.
Street Address: 1101 Prospect Avenue
City: Westbury State: NY Zip: 11590

SIC Code: 3542 Dun & Bradstreet Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID # / Date Received

**Owner/Operator Name**

Name: Patrick A. Tighe Phone: (516) 334-1300
Mail Address: 1101 Prospect Avenue, Westbury, NY 11590

**Emergency Contact**

Name: Patrick A. Tighe Title: Supervisor, Facility Administration
Phone: (516) 334-1300 24 Hr. Phone: (516) 798-1249

Name: Title:
Phone: ( ) 24 Hr. Phone: ( )

*Important: Read all instructions before completing form*

**Reporting Period** From January 1 to December 31, 19__

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory: Max. Daily Amount (code) | Inventory: Avg. Daily Amount (code) | Inventory: No. of Days On-site (days) | Storage Codes and Locations (Non-Confidential): Storage Code | Storage Locations |
|---|---|---|---|---|---|---|
| CAS 7440508 Trade Secret ☐<br>Chem. Name: Copper Powder<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐ | Fire ☐<br>Sudden Release of Pressure ☐<br>Reactivity X<br>Immediate (acute) X<br>Delayed (chronic) X | 03 | 03 | 365 | N14 | Stock Warehouse |
| CAS 71556 Trade Secret ☐<br>Chem. Name: 1,1,1, Trichloroethane<br>Check all that apply: Pure X, Mix X, Solid ☐, Liquid X, Gas ☐ | Fire X<br>Sudden Release of Pressure ☐<br>Reactivity X<br>Immediate (acute) X<br>Delayed (chronic) X | 02 | 02 | 365 | F14 | Stock Warehouse |
| CAS 108952 Trade Secret ☐<br>Chem. Name: Phenol<br>Check all that apply: Pure X, Mix X, Solid ☐, Liquid X, Gas ☐ | Fire X<br>Sudden Release of Pressure ☐<br>Reactivity X<br>Immediate (acute) X<br>Delayed (chronic) X | 01 | 01 | 365 | F14 | Stock Warehouse |

**Certification** *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Patrick A. Tighe/Supervisor, Facility Administration — Name and official title of owner/operator OR owner/operator's authorized representative

Patrick A. Tighe — Signature

5/9/89 — Date signed

**Optional Attachments** *(Check one)*

☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations

**Tier Two**
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**
*Specific Information by Chemical*

**Facility Identification**

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SIC Code: 3542 Dun & Bradstreet Number: 05-773-1663

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Name: Title:
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|---|---|---|---|---|---|---|
| CAS 7440025 Trade Secret ☐<br>Chem. Name: Nickel Powder<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐ | Fire ☐<br>Sudden Release of Pressure ☐<br>Reactivity X<br>Immediate (acute) X<br>Delayed (chronic) X | 04 | 04 | 365 | N14 | Stock Warehouse |
| CAS 7440484 Trade Secret ☐<br>Chem. Name: Cobalt Powder<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐ | Fire ☐<br>Sudden Release of Pressure ☐<br>Reactivity X<br>Immediate (acute) X<br>Delayed (chronic) X | 03 | 03 | 365 | N14 | Stock Warehouse |
| CAS 7440473 Trade Secret ☐<br>Chem. Name: Chromium (III) Powder<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐ | Fire ☐<br>Sudden Release of Pressure ☐<br>Reactivity X<br>Immediate (acute) X<br>Delayed (chronic) X | 04 | 04 | 365 | N14 | Stock Warehouse |

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Signature: Patrick A. Tighe Date: 5/29/89

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Page 1 of 2 pages
Form Approved OMB No. 2050-0072

**Tier Two**
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**
*Specific Information by Chemical*

**Facility Identification**

Name: METCO DIV. PERKIN-ELMER CORP.
Street Address: 220 Miller Place
City: Hicksville State: NY Zip: 11801
SIC Code: 3 3 9 9 Dun & Bradstreet Number: 0 5 - 7 7 3 - 1 6 6 3

FOR OFFICIAL USE ONLY — ID #: ____ Date Received: ____

**Owner/Operator Name**

Name: Patrick A. Tighe Phone: (516) 334-1300
Mail Address: 1101 Prospect Avenue, Westbury, NY 11590

**Emergency Contact**

Name: Patrick A. Tighe Title: Supervisor Facility Administration
Phone: (516) 334-1300 24 Hr. Phone: (516) 798-1249

Name: ____ Title: ____
Phone: ( ) 24 Hr. Phone: ( )

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 19__

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory: Max. Daily Amount (code) | Inventory: Avg. Daily Amount (code) | Inventory: No. of Days On-site (days) | Storage Codes and Locations (Non-Confidential): Storage Code | Storage Locations |
|---|---|---|---|---|---|---|
| CAS 7 4 4 0 0 2 5 Trade Secret ☐<br>Chem. Name: Nickel Powder<br>Check all that apply: X Pure, X Mix, X Solid, ☐ Liquid, ☐ Gas | ☐ Fire<br>☐ Sudden Release of Pressure<br>X Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 0 4 | 0 4 | 3 6 5 | D 1 4<br>N 1 4 | Warehouse<br>Production Lines |
| CAS 7 4 4 0 4 7 3 Trade Secret ☐<br>Chem. Name: Chromium (III) Powder<br>Check all that apply: X Pure, X Mix, X Solid, ☐ Liquid, ☐ Gas | ☐ Fire<br>☐ Sudden Release of Pressure<br>X Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 0 3 | 0 3 | 3 6 5 | D 1 4<br>N 1 4 | Warehouse<br>Production Lines |
| CAS 7 4 4 0 4 8 4 Trade Secret ☐<br>Chem. Name: Cobalt Powder<br>Check all that apply: X Pure, X Mix, X Solid, ☐ Liquid, ☐ Gas | ☐ Fire<br>☐ Sudden Release of Pressure<br>X Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 0 3 | 0 3 | 3 6 5 | D 1 4<br>N 1 4 | Warehouse<br>Production Lines |

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Signature — Date signed: 5/9/89

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**Tier Two**
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**
*Specific Information by Chemical*

**Facility Identification**

Name: METCO DIV. PERKIN-ELMER CORP.
Street Address: 220 Miller Place
City: Hicksville State: NY Zip: 11801

SIC Code: 3 3 9 9 Dun & Bradstreet Number: 0 5 - 7 7 3 - 1 6 6 3

FOR OFFICIAL USE ONLY — ID #: _____ Date Received: _____

**Owner/Operator Name**

Name: Patrick A. Tighe Phone: (516) 334-1300
Mail Address: 1101 Prospect Avenue, Westbury, NY 11590

**Emergency Contact**

Name: Patrick A. Tighe Title: Supervisor, Facility Administration
Phone: (516) 334-1300 24 Hr. Phone: (516) 798-1249

Name: _____ Title: _____
Phone: ( ) 24 Hr. Phone: ( )

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Reporting Period: From January 1 to December 31, 19__

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|---|---|---|---|---|---|---|
| CAS 7 1 5 5 6 Trade Secret ☐<br>Chem. Name 1,1,1, Trichloroethane<br>Check all that apply: Pure [X] Mix [ ] Solid [ ] Liquid [X] Gas [ ] | [X] Fire<br>[ ] Sudden Release of Pressure<br>[X] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 0 2 | 0 2 | 3 6 5 | C 1 5<br>D 1 4 | Degreasing Operation |
| CAS ☐ Trade Secret ☐<br>Chem. Name<br>Check all that apply: Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>☐ Immediate (acute)<br>☐ Delayed (chronic) | | | | | |
| CAS ☐ Trade Secret ☐<br>Chem. Name<br>Check all that apply: Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>☐ Immediate (acute)<br>☐ Delayed (chronic) | | | | | |

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Page 1 of 1 pages
Form Approved OMB No. 2050-0072

**Tier Two**
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**
*Specific Information by Chemical*

**Facility Identification**

Name: METCO DIV. PERKIN-ELMER CORP.
Street Address: 325 Duffy Avenue
City: Hicksville State: NY Zip: 11801
SIC Code: 3542 Dun & Bradstreet Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID #: Date Received:

**Owner/Operator Name**

Name: Patrick A. Tighe Phone: (516) 334-1300
Mail Address: 1101 Prospect Avenue, Westbury, NY 11590

**Emergency Contact**

Name: Patrick A. Tighe Title: Supervisor, Facility Administration
Phone: (516) 334-1300 24 Hr. Phone: (516) 798-1249

Name: Title:
Phone: ( ) 24 Hr. Phone: ( )

*Important: Read all instructions before completing form* — Reporting Period: From January 1 to December 31, 19___

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory: Max. Daily Amount (code) | Inventory: Avg. Daily Amount (code) | Inventory: No. of Days On-site (days) | Storage Codes and Locations (Non-Confidential): Storage Code | Storage Locations |
|---|---|---|---|---|---|---|
| CAS 71556 Trade Secret ☐<br>Chem. Name 1,1,1 TRichloroethane<br>Check all that apply: ☒ Pure ☐ Mix ☐ Solid ☒ Liquid ☐ Gas | ☒ Fire<br>☐ Sudden Release of Pressure<br>☒ Reactivity<br>☒ Immediate (acute)<br>☒ Delayed (chronic) | 02 | 02 | 365 | C15<br>D14 | Degreasing Process |
| CAS ☐ Trade Secret ☐<br>Chem. Name<br>Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>☐ Immediate (acute)<br>☐ Delayed (chronic) | | | | | |
| CAS ☐ Trade Secret ☐<br>Chem. Name<br>Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>☐ Immediate (acute)<br>☐ Delayed (chronic) | | | | | |

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Signature — Date signed: 5/9/89

**Optional Attachments** *(Check one)*

☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations

# MATERIAL SAFETY DATA SHEET

## I. PRODUCT IDENTIFICATION

| | |
|---|---|
| Product Name: | ZIRCONIUM DIOXIDE (OR ZIRCONIA) |
| Trade Names: | CF-Premium, CF-Premium-M, CF-Extra, CF-Plus, CF-Plus-HM, CF-Super, CF-Super-M, CF-Super-HM, EF/SF-Premium, EF/SF-Extra, EP-Extra |
| Supplier Name/Address: | Z-Tech Corporation; 8 Dow Road; Bow, NH 03304 |
| Emergency Telephone #: | (800) 255-3924 (U.S. and Canada)<br>(813) 977-3668 (Call Collect from outside the U.S.) |
| Information Telephone #: | (603) 228-1305 |
| Date Prepared : | December 29, 1997 |

## II. HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

| Ingredients | CAS # | ACGIH TLV | OSHA PEL | OSHA STEL | % | $LC_{50}$ppm (Inhalation) | $LD_{50}$ mg/kg. (Oral) |
|---|---|---|---|---|---|---|---|
| Zirconium Dioxide ($ZrO_2$) | 1314-23-4 | 5 mg/m$^3$ | 5 mg/m$^3$ | 10 mg/m$^3$ | 100 | N/A | N/A |

## III. PHYSICAL / CHEMICAL CHARACTERISTICS

| | |
|---|---|
| Odor and appearance: | White odorless powder |
| Odor Threshold: | N/Ap |
| Specific gravity: | 5.7 |
| Coefficient of water/oil distribution: | N/A |
| Vapor pressure (mm Hg): | No Data |
| Melting point: | 2715°C |
| Boiling point: | N/Ap |
| Freezing point: | N/A |
| pH: | 7 – 8.5 |
| Vapor density (Air = 1): | No Data |
| Evaporation rate (Butyl Acetate = 1): | N/A |
| Volatiles, %: | Negligible |
| Solubility in water: | Insoluble |



Post-it® Fax Note 7671 Date # of pages ▶ 4
To Mary Ann From Laurie
Co./Dept. Sulzer Co. Z-Tech
Phone # Phone # (603) 228-1305
Fax # 516 338 2123 Fax # (603) 228-5234

## IV. FIRE AND EXPLOSION HAZARD DATA

| | |
|---|---|
| Conditions of flammability: | Non-flammable |
| Means of extinguishing: | Not applicable. Use media suitable for surrounding materials and type of fire. |
| Sensitivity to mechanical impact/static discharge: | N/A |
| Flash point (Method): | None |
| Upper/Lower flammable limits (% by volume): | N/A |
| Auto-Ignition temperature | N/A |
| Hazardous combustion products: | None known |
| Special fire fighting procedures: | None |
| Unusual fire and explosion hazards: | None |

## V. REACTIVITY DATA

| | |
|---|---|
| Stability: | Stable under normal conditions. |
| Incompatible materials: | None known. |
| Conditions of reactivity: | Hazardous polymerization does not occur. Does not react with water. |
| Hazardous decomposition products: | None known. |

## VI. HEALTH HAZARD DATA

****Routes of exposure and acute effects****

| | |
|---|---|
| Exposure limit: | ACGIH-TLV-TWA: 5 $mg/m^3$ (as Zr) |
| Inhalation: | No serious toxic effects are known to be associated with inhaling dusts from this material. Can be a nuisance dust in high concentrations. |
| Skin: | No irritation is likely to develop following contact with human skin. Mechanical irritation can occur, however, due to abrasive nature of powder. |
| Eyes: | No irritation is likely to develop following contact with eyes. Mechanical irritation can occur, however, due to abrasive nature of powder. |
| Ingestion: | The acute oral $LD_{50}$ is probably above 5 g/kg. Relative to other materials, a single dose of this product is practically non-toxic by ingestion. |

## VI. HEALTH HAZARD DATA (CONT'D)

Carcinogenicity: Not listed as a carcinogen by IARC Mongraphs or NTP Report. Not OSHA regulated for carcinogenicity.

Irritancy of material: See comments on skin and eyes.

Signs and symptoms of exposure: Mechanical abrasion can occur in eyes and on skin.

Medical conditions aggravated by exposure: Lung dysfunctions, as with any dust.

****Emergency and First Aid Procedures****

Inhalation: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

Skin: Wash material off with plenty of soap and water. If redness, itching or a burning sensation develops, get medical attention.

Eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If redness, itching or burning sensation develop, have eyes examined and treated by medical personnel.

Ingestion: Give victim 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person).

## VII. PRECAUTIONS FOR SAFE HANDLING AND USE

| | |
|---|---|
| Spill, leak or release: | Wear respiratory protection during cleanup. Sweep up and recover into closed container for reuse or disposal. |
| Waste disposal: | Product is not a hazardous waste under U.S. RCRA, 40 CFR 261. Comply with all Federal, State and Local regulations regarding disposal. |
| Precautions in handling/storage: | Store upright in a dry area. |
| Other precautions: | None. |

## VIII. CONTROL MEASURES

| | |
|---|---|
| Respiratory protection: | If needed in dusty conditions, use a NIOSH approved respirator. |
| Ventilation: | General ventilation is usually adequate. If necessary, use local exhaust to minimize exposure. |
| Protective gloves: | Impervious gloves, such as rubber. |
| Eye protection: | Safety glasses with side shields, or chemical safety goggles. |
| Other protective clothing/equipment: | Maintain an eyewash station in work area. Long sleeve shirts and pants are suggested for prolonged exposure. |
| Work/hygienic practices: | Wash hands before eating, drinking or smoking. |

## IX. ADDITIONAL NOTES AND REFERENCES

Abbreviations:
N/A: Not available
N/Ap: Not applicable
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
NIOSH: National Institute for Occupational Health & Safety
TLV: Threshold Limit Values
STEL: Short Term Exposure Limit
NTP: National Toxicology Program

References:

1. Merck & Co., Inc., The Merck Index, 1983, Tenth Edition.
2. Van Nostrand Reinhold, Hawley's Condensed Chemical Dictionary, Eleventh Edition, N. Irving Sax and Richard Lewis, Jr.
3. Van Nostrand Reinhold, Dangerous Properties of Industrial Materials, Sixth Edition, N. Irving Sax.
4. Canadian Centre for Occupational Health and Safety. RTECS (Registry of Toxic Effects) database.
5. ACGIH, Threshold Limit Values and Biological Exposure Indices 1987-88.
6. International Agency for Research on Cancer Monographs, Supplement 7, 1988.
7. Transportation of Dangerous Goods Act and Regulations.
8. National Toxicology Program (NTP) Report on Carcinogens.

Note: The information herein is given in good faith, no warranty, expressed or implied, is made.

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

April 23, 1998

COMMISSIONER:
Douglas E. Bryant

BOARD:
John H. Burriss
Chairman

William M. Hull, Jr., MD
Vice Chairman

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Secretary

Mark B. Kent

Cyndi C. Mosteller

Brian K. Smith

Rodney L. Grandy

Michael S. Lydon
EH&S Spec.
Sulzer Metco (US) Inc.
325 Duffy Avenue
Hicksville, NY 11801

Dear Mr. Lydon:

Enclosed is your S.C. Radioactive Waste Transport Permit No. 1986-31-98-Y which is effective until December 31, 1998.

All prior notification forms filed with the Department and shipping documents accompanying radioactive waste shipments into or within South Carolina should have your permit number indicated on them.

Due to coverage as an additional insured under The NDL Organization Inc.'s policy, the transportation of waste into or within South Carolina will be restricted to this collector.

It is also advisable to assure waste shipped to the Barnwell facility complies with their license conditions and acceptance criteria.

Should you have any questions concerning your permit or the transportation of radioactive waste in the State of South Carolina, please do not hesitate to contact our office at (803) 896-4240.

Very truly yours,

Virgil R. Autry, Director
Division of Radioactive Waste Management
Bureau of Land & Waste Management

1986/sla

Enclosure

cc: Bernice Hull, NDL

WORK ORDER NO: D3608148

DOCUMENT NO. 78899

# STRAIGHT BILL OF LADING

TRANSPORTER 1 Clean Harbors Env. Services, Inc. VEHICLE ID # Y-27260 TN

EPA ID # MAD039322250 TRANS. 1 PHONE 781-849-1800

TRANSPORTER 2 _____ VEHICLE ID # _____

EPA ID # _____ TRANS. 2 PHONE _____

Attn:

| DESIGNATED FACILITY | SHIPPER |
|---|---|
| Clean Harbors of Baltimore, Inc. | Sulzer Metco US Inc |
| FACILITY EPA ID # MDD980555189 | SHIPPER EPA ID # NYD131318651 |
| ADDRESS 1910 Russell Street | ADDRESS 1101 Prospect Avenue |
| CITY Baltimore STATE MD ZIP 21230 | CITY Westbury STATE NY ZIP 11590 |

| CONTAINERS NO. & SIZE | TYPE | HM | DESCRIPTION OF MATERIALS | TOTAL QUANTITY | UNIT WT/VOL |
|---|---|---|---|---|---|
| 3x 55 | DM | | A. NON DOT REGULATED MATERIAL (oily debris) | 465 | P |
| 1x 55 | DM | | B. NON DOT REGULATED MATERIAL (compressor oil) | 306 | P |
| 6x 55 | DM | | C. NON DOT REGULATED MATERIAL (nylon turnings) | 823 | P |
| | | | D. | | |
| | | | E. | | |
| | | | F. | | |
| | | | G. | | |
| | | | H. | | |

SPECIAL HANDLING INSTRUCTIONS
A. CH189102
B. CH189111
C. CH189144

In case of Emergency, call: 1-800-645-8265.
In case of spill, dike and contain.

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

| | PRINT | SIGN | DATE |
|---|---|---|---|
| SHIPPER | DAVID WALZAK | [signature] | 4/1/03 |
| TRANSPORTER 1 | Joseph Ciccone | [signature] | 4/1/03 |
| TRANSPORTER 2 | PRINT | SIGN | DATE |
| RECEIVED BY | PRINT | SIGN | DATE |

4

CHI 107

TRANSMISSION REPORT

**********

:ENV COMP & CTRL/FACL ( JAN 22 '93 02:38PM )

| DATE | START TIME | REMOTE TERMINAL IDENTIFICATION | MODE | TIME | RESULTS | TOTAL PAGES | DEPT. CODE | FILE NO. |
|---|---|---|---|---|---|---|---|---|
| JAN 22 | 02:36PM | MH IH&S G3EST | | 01'58" | OK | 05 | 0569 | |

FAX TRANSMITTAL FROM:

# METCO PERKIN-ELMER


ENVIRONMENTAL

COMPLIANCE AND CONTROL

1101 PROSPECT AVENUE

WESTBURY, NY 11590-0201

(516) 334-1300 MAIN NUMBER

(516) 338-2337 ENVIRONMENTAL COMPLIANCE AND CONTROL

(516) 338-2336 FAX NUMBER


DATE: JANUARY 20, 1993

TO: COMPANY: _____

ATTENTION: MARIANNE SANTARELLI

DEPT. /M.S.: FAX 908-582-7233

FROM: C.L. CONROY

4 PAGES TO FOLLOW

METCO®
PERKIN ELMER™

# METCOSEAL® SA

## METALLIC PIGMENTED COATING

(SILICONE ALUMINUM)

**A special material for finishing treatment of thermal spray coatings. Refer to METCO System Specifications and Instructions for full data on use.**

**INSTRUCTIONS:**

A Silicone Resin Formulation containing Metallic Aluminum, used in METCO Systems of Corrosion Prevention.

See METCO System Specifications and Instructions for full data on use.

Stir thoroughly before using.

Apply one or more coats as required, by brush or spray gun.

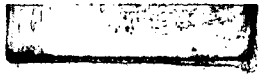
Apply heavy enough to produce a thoroughly wet appearance.

Allow ½ hour minimum drying time, or bake dry at 350°F for 15 minutes.

METCOSEAL SA can be applied by brush or spray. When brushed, it should be applied as it comes from the container without thinning. For spraying, thin with one part METCOSEAL ST-I Thinner to three parts METCOSEAL SA.

Use METCOSEAL ST-I Thinner for cleaning spray equipment or brushes.

**CONTENTS 1 GALLON U.S.**



IDENT. NO. 02327

Label Q 2331, Iss. p

# Metco Division
# The Perkin-Elmer Corporation
# Westbury, NY 11590-0201

**HAZARD NOTICE:** This material is for the thermal spraying process. Consult the METCO Instruction Manual, the Material Safety Data Sheet, and applicable Federal and local jurisdiction safety and health regulations before utilizing this product. This product should not be ingested; inhalation and skin contact should be avoided. Local ventilation, skin and respiratory protection should be used during handling. Good housekeeping and personal hygiene should be practiced. Some individuals may show unusual sensitivity to exposure. Failure to observe proper practices may result in health hazards.

**WARNING FLAMMABLE. HARMFUL IF INHALED. HARMFUL OR FATAL IF SWALLOWED. USE ONLY WITH ADEQUATE VENTILATION. FOR INDUSTRIAL USE ONLY.**

**Specific Effects Of Overexposure:**
**Isobutyl Acetate:** Hazard by inhalation, skin and eye contact. Inhalation, skin and eye contact may cause irritation of the respiratory tract, skin and eyes.
**Ethyl Benzene:** Hazard by inhalation, skin and eye contact. Inhalation, skin and eye contact may cause severe irritation of the upper respiratory tract, skin and eyes.
**Toluene:** Hazard by inhalation, skin absorption and eye contact. Inhalation may cause fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, lacrimation and insomnia. Chronic exposure may cause leukopenia/enlarged liver. Skin contact may cause dermatitis and contribute to overall exposure. Eye contact may cause irritation.
**2 Butoxyethanol:** Hazard by inhalation, skin and eye contact. Inhalation may cause upper respiratory tract irritation, reproductive effects and anemia. Skin and eye contact may cause irritation.
**Denatured Ethyl Alcohol:** Hazard by inhalation, ingestion, skin absorption/contact, eye contact. Acute/chronic inhalation may cause irritation of the upper respiratory tract/coughing, central nervous system depression resulting in headache, dizziness and drowsiness. Skin contact may result in redness, burning and defatting. Ingestion may result in severe narcosis and chronic ingestion may result in degenerative changes in the liver, kidney, brain. Eye contact may cause burning and stinging.
**Isopropyl Alcohol:** Hazard by inhalation, skin and eye contact. Eye/skin contact may cause mild irritation of the eyes/skin. Inhalation may cause mucous membrane irritation, drowsiness, dizziness, headache.
**Aluminum:** Hazard by inhalation, skin and eye contact. Pulmonary, skin and eye irritant due to abrasive action.
**Petroleum Solvent:** Hazard by inhalation, skin and eye contact. Inhalation may cause headache, intoxication and nausea. Skin and eye contact may cause irritation and dermatitis.
**Xylene:** Hazard by inhalation, skin absorption, eye contact and ingestion. Inhalation may cause dizziness, excitement, drowsiness, incoherence, irritated eyes and mucous membranes. Eye contact may cause corneal damage and irritation. Skin contact may cause dermatitis and irritation. Chronic inhalation exposure may cause liver or kidney dysfunction.
**Methyl Ethyl Ketone:** Hazard by inhalation, skin and eye contact. Inhalation may cause dizziness, headache, narcosis and drowsiness. Eye/skin contact may be strongly irritating.
**Diacetone Alcohol:** Hazard by inhalation, skin and eye contact. Inhalation may cause intoxication, headache, nausea and nose/throat irritation. Skin and eye contact may cause irritation.
**Target Organs:** Respiratory tract, Central nervous system, Peripheral nervous system, blood forming organs, reproductive organs, liver, kidney, skin and eyes.

**In Case of Fire:**
Extinguishing Media: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or foam) designed to extinguish NFPA Class 1B flammable liquid fires.
Unusual Fire and Explosion Hazards: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, open flames, or other sources of ignition. Closed container may explode if exposed to extreme heat. Do not apply to hot surfaces.

Special Fire Fighting Procedures: Water spray may be ineffective. Water may be used to cool containers to prevent pressure buildup and possible auto-ignition or explosion when exposed to extreme heat. If water is used, fog nozzles are preferable.

**In Case of Spill or Leak:**
Remove all sources of ignition (flames, hot surfaces, electrical static or frictional sparks). Avoid breathing vapors. Ventilate area. Remove with inert absorbent and non-sparking tools. IMPORTANT: Hazardous product residue may be present after contents have been removed. Do not reuse empty package without commercial cleaning or reconditioning.

## IN CASE OF SPILL
## CALL CHEMTREC - DAY OR NIGHT
## 1-800-424-9300

**Special Protection Information:**
Adequate local/general ventilation should be provided when using this product. Appropriate respiratory, skin, eye and hand protection should be utilized when using this product.

**Special Precautions:**
Precautions to be Taken in Handling and Storing: Do not store above 120°F.
Other Precautions: Do not take internally. Containers should be grounded when pouring. Avoid free fall of liquid in excess of a few inches. DO NOT FLAME CUT, BRAZE OR WELD EMPTY CONTAINERS. KEEP CONTAINERS CLOSED WHEN NOT IN USE.
Waste Disposal Method: Dispose of in accordance with local, State and Federal regulations.

**USING THE NATIONAL PAINT AND COATINGS ASSOCIATION'S HAZARDOUS MATERIALS IDENTIFICATION SYSTEM, THIS PRODUCT'S HAZARD CLASSIFICATION IS:**

| | |
|---|---|
| HEALTH** | 3 |
| **Note: If an asterisk is present, see section 2 and 8 of the MSDS for further information. | |
| FLAMMABILITY | 3 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | See the MSDS for proper personal protective equipment. |

Flash Point: 36°F
UN1263 PAINT

**WARNING:** This product contains a chemical known to the STATE OF CALIFORNIA to cause cancer and/or reproductive harm.

CONTENTS 1 GALLON U.S.

METCO®

# METCO CLEANING SOLVENT

NON-FLAMMABLE SOLVENT
EXCELLENT FOR
CLEANING METALS
CONTAMINATED WITH
OILS AND GREASES

# METCO CLEANING SOLVENT

- Especially prepared for degreasing and cleaning metal surfaces before metallizing.
- Use cold. Do not use for vapor phase degreasing.
- Wipe or brush, using rags or brush.
- Do not pour used solvent back in can.
- Do not use on rubber or plastics.
- Do not use in oxygen systems.
- Do not contaminate with water.
- Do not vaporize in presence of ignition sources.

**WARNING: VAPOR CAN BE FATAL. Contains 1, 1, 1, inhibited trichloroethane. Provide adequate ventilation. High concentrations of vapors are anesthetic and dangerous to life. Force feed masks must be used where thorough ventilation is not possible. Eye irritation and dizziness are signs of inadequate ventilation and dangerous concentration. Avoid prolonged or repeated contact with skin. Do not take internally. CALL PHYSICIAN IMMEDIATELY, if swallowed. Clean hands thoroughly after using especially before eating. Do not transfer contents to bottles or other unlabeled containers. Keep out of reach of children. Keep container closed.**

## METCO INC.

WESTBURY, L.I., N.Y.

ATLANTA • CHICAGO • DALLAS • LOS ANGELES

Form Approved OMB No.: 2070-0093

Approval Expires: 01/91

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

**EPA FORM R**

**PART I. FACILITY IDENTIFICATION INFORMATION**

(This space for your optional use.)

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret?
[ ] Yes (Answer question 1.2; Attach substantiation forms.) [X] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [ ] Unsanitized

1.3 Reporting Year 19 89

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe Superintendent, Facilities

Signature: Patrick A. Tighe

Date signed: June 29, 1990

**3. FACILITY IDENTIFICATION**

3.1 Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION

Street Address: 220 Miller Place

City: Hicksville

County: Nassau

State: New York

Zip Code: 11801

TRI Facility Identification Number: 11801PRKNL220MI

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
P.O. BOX 23779
WASHINGTON, DC 20026-3779
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe — Telephone Number (include area code): 516 334-1300 Ext. 495

3.4 Public Contact: Same as 3.3 — Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3399 b. c. d. e. f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 0861300 | | | 0034700 | | |

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NYD981558570 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company: Perkin-Elmer Corporation

4.2 Parent Company's Dun & Bradstreet Number: 00-118-4480

*(Important: Type or print; read instructions before completing form.)*



EPA

# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

## 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | N/A | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

## 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) 007440-48-4 |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) COBALT POWDER |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution; f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | d. [ ] Repackaging only | b. [ ] As a formulation component | | c. [X] As an article component |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | | b. [ ] As a manufacturing aid | | c. [ ] Ancillary or other use |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][3] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [X] [ ] [ ] | | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [ ] [ ] [ ] | 1180 | 5.2b [C] | |
| 5.3 Discharges to receiving streams or water bodies 5.3.1 [ ] | 5.3.1a | [N/A] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) 5.3.2 [ ] | 5.3.2a | [N/A] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [N/A] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection on-site | 5.4a | [N/A] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land on-site | | | | | |
| 5.5.1 Landfill | 5.5.1a | [N/A] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [N/A] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [N/A] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [N/A] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 | [N/A] [ ] [ ] | | 6.1.1b | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.1b | 6.2.1c M |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.2b | 6.2.2c M |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.3b | 6.2.3c M |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

[N/A] Not Applicable (NA) - Check if no on-site treatment is applied to any wastestream containing the chemical or chemical category.

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes | No |
|---|---|---|---|---|---|---|
| 7.1a | 7.1b | 7.1c | 7.1d [ ] | 7.1e % | 7.1f [ ] | [ ] |
| 7.2a | 7.2b | 7.2c | 7.2d [ ] | 7.2e % | 7.2f [ ] | [ ] |
| 7.3a | 7.3b | 7.3c | 7.3d [ ] | 7.3e % | 7.3f [ ] | [ ] |
| 7.4a | 7.4b | 7.4c | 7.4d [ ] | 7.4e % | 7.4f [ ] | [ ] |
| 7.5a | 7.5b | 7.5c | 7.5d [ ] | 7.5e % | 7.5f [ ] | [ ] |
| 7.6a | 7.6b | 7.6c | 7.6d [ ] | 7.6e % | 7.6f [ ] | [ ] |
| 7.7a | 7.7b | 7.7c | 7.7d [ ] | 7.7e % | 7.7f [ ] | [ ] |
| 7.8a | 7.8b | 7.8c | 7.8d [ ] | 7.8e % | 7.8f [ ] | [ ] |
| 7.9a | 7.9b | 7.9c | 7.9d [ ] | 7.9e % | 7.9f [ ] | [ ] |
| 7.10a | 7.10b | 7.10c | 7.10d [ ] | 7.10e % | 7.10f [ ] | [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal: Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| M 7 | _____ | _____ | + / - _____ % | . | R |

EPA

# EPA FORM R
## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|---|
| | | A.1 Reporting Ranges 0 1–499 500–999 | A.2 Enter Estimate | | |
| 5.3 Discharges to receiving streams or water bodies | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| | A.1 Reporting Ranges 0 1–499 500–999 | A.2 Enter Estimate | | |
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 ☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

b. Instructions.

# INSTRUCTIONS FOR COMPLETING EPA FORM R, THE TOXIC CHEMICAL RELEASE REPORTING FORM

## GENERAL INFORMATION

A complete report Form R must be submitted for each toxic chemical manufactured, processed, or otherwise used at each covered facility as prescribed in the reporting rule in 40 CFR Part 372. These instructions supplement and elaborate on the requirements in the reporting rule. Together with the reporting rule, they constitute the reporting requirements; you should read both before attempting to complete Form R. All references in these instructions are to sections in the reporting rule unless otherwise indicated.

The Toxic Chemical Release Reporting Form, EPA Form R, consists of four parts:

- Part I, Facility Identification Information;
- Part II, Off-Site Locations to Which Toxic Chemicals are Transferred in Wastes;
- Part III, Chemical Specific Information; and
- Part IV, Supplemental Information.

Form R is designed so that a majority of the information required in Part I and all of the information required in Part II should be the same for each chemical reported by your facility. If the information in Parts I and II are identical for two or more chemicals, you may submit photostatic copies of those parts for those chemicals as long as each Part I has an original signature on the certification statement. Part III must be completed separately for each chemical. Part IV provides additional space, if needed, to complete the information required by the preceding sections of the form.

A complete report for any listed toxic chemical that is not claimed trade secret consists of the following completed parts:

- Part I with an original signature on the certification statement (Section 2);
- Part II;
- Part III (Section 8 is optional); and
- If applicable, Part IV.

A complete report for a toxic chemical claimed trade secret includes all of the above items plus the following:

- A completed trade secret substantiation form;
- A "sanitised" version of the report in which the chemical identity items (Part III, Sections 1.2 and 1.3) have been left blank but in which a generic chemical name has been supplied (Part III, Section 1.4); and
- A "sanitised" version of the trade secret substantiation form.

## WHEN THE REPORT MUST BE SUBMITTED

The report for any calendar year must be submitted on or before July 1 of the following year (e.g., the report for calendar year 1987, January through December, must be submitted on or before July 1, 1988).

## WHERE TO SEND THE REPORT

Submit reports, including reports containing trade secret claims (i.e., sanitized) to:

U.S. Environmental Protection Agency
P.O. Box 70266
Washington, D.C. 20024-0266
Attn: Toxic Chemical Release Inventory

In addition, you must send a copy of the report to the State (State of the U.S., the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, the Northern Mariana Islands, and any other territory or possession over which the U.S. has jurisdiction) in which the facility is located. States will provide addresses where the copies of the reports are to be sent. Copies of the report sent to the State should be the "sanitised," non-trade-secret version of the report, unless the State specifically requests otherwise. For additional information, refer to the discussion of trade secret/confidentiality claims in the instructions for completing Part III, Section 1, of the form.

## HOW TO OBTAIN FORMS AND OTHER INFORMATION

Additional copies of EPA Form R and related guidance documents may be obtained from:

Emergency Planning and Community Right-to-Know Hotline
U.S. Environmental Protection Agency
WH-562A
401 M Street, S.W.
Washington, D.C. 20460
(800) 535-0202
(202) 479-2449 (Washington D.C. and Alaska)

## INSTRUCTIONS FOR COMPLETING SPECIFIC SECTIONS OF EPA FORM R

The following are specific instructions for completing each section of EPA Form R. The number designations of the parts and sections of these instructions correspond to those in Form R unless otherwise indicated.

## PART I. FACILITY IDENTIFICATION INFORMATION

### 1.1 Does This Report Contain Trade Secret Information?

You must answer this question only after you have completed the rest of the report. The specific identity of the toxic chemical being reported in Part III, Sections 1.2 and 1.3 may be designated as trade secret. If you are making a trade secret claim, answer by marking the "yes" box and proceed to Section 1.2. (See Part III, Section 1, of these instructions for specific instructions on trade secrecy claims.) If the answer is no, proceed to Section 1.3.

### 1.2 Is This a Sanitized Copy?

You must answer this question only after you have completed the rest of the report. Answer yes if this copy of the report is the public "sanitized" version of a report where the chemical identity is claimed trade secret in Part III, Section 1.4 of the report. Otherwise, answer no.

## 1.3 Reporting Year

In Section 1.3, you must enter the year to which the reported information applies, not the year in which you are submitting the report.

## 2. Certification

The certification statement must be signed by the owner or operator, or a senior official with management responsibility for the person (or persons) completing the form. The owner, operator, or official must certify the accuracy and completeness of the information reported on the form by signing and dating the certification statement. Each report must contain an original signature. Print or type the name and title of the person who signs the statement in the space provided. This certification statement applies to all the information supplied on the form and should be signed only after the form has been completed.

## 3. Facility Identification

## 3.1 Facility Name and Location

You must enter the name of your facility (plant site name or appropriate facility designation), street address, city, county, state, and zip code in the space provided. You may not use a post office box number for this location information. The address provided should be the location where the chemicals are manufactured, processed, or otherwise used.

## 3.2 Full or Partial Facility Indication

You must indicate whether your report is for the covered facility as a whole or for part of a covered facility. Check box a. if the report contains information about a chemical for an entire covered facility. Check box b. if the report contains information about a chemical but for only part of a covered facility.

The SIC code system classifies business "establishments," which are defined as "distinct and separate economic activities [which] are performed at a single physical location." Under section 372.30(c) of the reporting rule, you may choose to submit a separate Form R for each establishment, or for groups of establishments, in your covered facility. This allows you the option of reporting separately on the activities involving a toxic chemical at each establishment, or group of establishments (e.g., part of a covered facility), rather than submitting a single Form R for that chemical for the entire facility. You may do this provided that all releases of the toxic chemical from the entire covered facility are reported. However, if an establishment or group of establishments does not manufacture, process, otherwise use, or release a toxic chemical, then you do not have to submit a report on that chemical from that establishment or group of establishments.

## 3.3 Technical Contact

You must enter the name and telephone number (including area code) of a technical representative whom EPA or State officials may contact for clarification of the information reported on the form. This person does not have to be the person who prepares the report or signs the certification statement. However, this person must have detailed knowledge of the report to be able to respond to questions.

## 3.4 Public Contact

You must enter the name and telephone number of a person who can respond to questions from the public about the report. If you choose to designate the same person as both the technical and the public contact, enter "same as 3.3" in this space. If no public contact is designated in Section 3.4, EPA will treat the technical contact as the public contact.

## 3.5 Standard Industrial Classification (SIC) Code

You must enter the appropriate 4-digit primary Standard Industrial Classification (SIC) code for your facility. If the report covers more than one establishment, enter the primary 4 digit SIC code for each establishment. You are only required to enter SIC codes for establishments within the facility that fall within SIC codes 20 through 39 as identified in section 372.22 of the reporting rule. Use the Supplemental Information sheet (Part IV) if you need to enter more than three SIC codes.

## 3.6 Latitude and Longitude

Enter the latitudinal and longitudinal coordinates of your facility. You must supply the latitude and longitude for calendar year 1987 reports if the information is readily available to you. Sources of these data include EPA permits (e.g., NPDES permits), county property records, facility blueprints, and site plans. If these geographic coordinates are not readily available to you for calendar year 1987 reports, enter not applicable [N/A]. All facilities are required to provide this information in reports submitted for the calendar year 1988 and subsequent years. Use leading place holding zeros.

## 3.7 Facility Dun and Bradstreet Number

You must enter the number assigned by Dun and Bradstreet for your facility or each establishment within your facility. This may be available from your facility's financial office. If none of your establishments have been assigned Dun and Bradstreet Numbers, indicate this in Section 3.7 by entering not applicable [N/A] in box a. If only some of your establishments have been assigned Dun and Bradstreet numbers, indicate this in Section 3.7 by entering those numbers. Use leading place holding zeros. For more than two establishments, use the Supplemental Information sheet (Part IV).

## 3.8 EPA Identification Number

If your facility has been assigned EPA Identification Numbers, you must enter those numbers. The EPA I.D. Number is a 12-digit number assigned to facilities covered by hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA). Facilities not covered by RCRA are not likely to have an assigned EPA I.D. Number. If your facility does not have an EPA I.D. Number, enter not applicable [N/A] in box a. If your facility has more than two numbers, use the Supplemental Information sheet (Part IV). Use leading place holding zeros.

## 3.9 NPDES Permit Numbers

You must enter the numbers of any permits your facility holds under the National Pollutant Discharge Elimination System (NPDES). This 9-digit permit number is assigned to your facility by EPA or the State under the authority

of the Clean Water Act. If your facility has more than two permits, use the Supplemental Information sheet (Part IV). Use leading place holding zeros. If your facility does not have a permit, enter not applicable [N/A] in box a.

### 3.10 Name of Receiving Stream or Water Body

You must enter the name of each surface water body or receiving stream to which chemicals being reported are directly discharged. Report the name of each receiving stream or water body as it appears on the NPDES permit for the facility. Enter not applicable [N/A] to any unneeded spaces. If your facility discharges the toxic chemical to more than three receiving streams or water bodies, use the Supplemental Information sheet (Part IV).

### 3.11 Underground Injection Well Code (UIC) Identification Number

If your facility has a permit to inject chemical-containing waste which includes any toxic chemical being reported into Class 1 deep wells, you must enter the Underground Injection Control (UIC) 12-digit identification number assigned by EPA or by the State under the authority of the Safe Drinking Water Act. If your facility does not hold such a permit, enter not applicable [N/A] in this space.

## 4. Parent Company Information

You must provide information on your parent company. For purposes of this form, parent company is defined as a company which directly owns at least 50 percent of the voting stock of another company.

### 4.1 Name of Parent Company

You must enter the name of the corporation or other business entity that is your parent company. If you have no parent company, enter not applicable [N/A].

### 4.2 Parent Company's Dun & Bradstreet Number

If applicable, you must enter the Dun and Bradstreet Number for your parent company. The number may be obtained from the treasurer or financial officer of the company. If your parent company does not have a Dun and Bradstreet number, enter not applicable [N/A]. Use leading place holding zeros.

# PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

This section requires a listing of all off-site locations to which you transfer wastes containing the toxic chemical. The information that you enter in this section relates to data to be reported in Part III, Section 6, of the form. List only publicly owned treatment works (POTW) and treatment or disposal facilities. Do not list locations to which products containing the toxic chemical are shipped for sale or distribution in commerce or for further use. Also, do not list locations to which wastes containing the chemical are sold or sent for recovery, recycling, or reuse of the toxic chemical.

## 1. Publicly Owned Treatment Works (POTW)

You must enter the name and address of the POTW to which your facility discharges wastewater containing any toxic chemical you are reporting. If you do not discharge wastewater containing reported toxic chemicals to a POTW, enter not applicable [N/A]. If you discharge wastewater containing toxic chemicals to more than one POTW, use additional copies of Part II.

## 2. Other Off-Site Locations

In the block next to the heading "Other off-site location," enter a number. For the first such off-site location enter "1" in the block. Continue numbering the off-site locations in ascending order. This is the block number required by Part III, Section 6. If your facility transfers the toxic chemical to more than three off-site locations, use additional copies of Part II and continue numbering these locations in ascending order.

In the spaces provided, you must enter the name and address of each location (other than POTWs) to which you ship or transfer wastes containing the toxic chemical. Also enter the RCRA I.D. Number (EPA I.D. Number) for each such location, if known to you. Such information may be found on the Uniform Hazardous Waste Manifest which is required by RCRA regulations.

You must also indicate in the space provided whether the location is owned or controlled by your facility or your parent company.

# PART III. CHEMICAL SPECIFIC INFORMATION

## 1.1 Trade Secret Block

If you are claiming chemical identity as a trade secret, you must mark the trade secret claim box in Section 1.1. In addition, you must attach a completed trade secret substantiation form to the report, as set forth in the trade secret rule in 40 CFR Part 350. When the chemical identity is claimed trade secret, you must also provide a generic name in Section 1.4.

Note: If you complete and submit your Toxic Chemical Release Inventory Reporting Form before the trade secret rule is in effect, you are still required to substantiate your claim that the specific chemical identity is a trade secret. Accordingly, you should follow the provisions of the proposed trade secret rule and use the proposed trade secret substantiation form which appeared in the FEDERAL REGISTER of October 15, 1987 (52FR 38312-38377).

## 1.2 CAS Registry Number

You must enter the Chemical Abstracts Service (CAS) registry number that appears in section 372.65 of the reporting rule for the chemical being reported. Use leading place holding zeros. If you are reporting one of the chemical categories in section 372.65 of the rule (e.g., copper compounds), enter [N/A] in the CAS number space. CAS numbers are cross-referenced with an alphabetical list of trade names and chemical names in section 372.65 of the rule.

## 1.3 Chemical or Chemical Category Name

You must enter in the space provided the name of the chemical or chemical category as it is listed in section 372.65 of the reporting rule. Only use names listed in section 372.65.

## 1.4 Generic Chemical Name

You must complete Section 1.4 if you are claiming the specific chemical identity of the toxic chemical as a trade secret and have marked the trade secret block in

Section 1.1. The generic chemical name must be descriptive of the chemical structure. You must limit the generic name to seventy characters (e.g., numbers, letters, spaces, punctuation) or less.

## 2. Mixture Component Identity

Use this section to report a mixture component that you know exceeds a threshold. Do not complete this section if you have completed Section 1 of Part III.

You may have received a mixture or trade name product from another person which you were told contains a section 313 toxic chemical, but that person did not tell you the specific chemical name or CAS number of the toxic chemical. The person may have given you a generic chemical name and the percentage composition of the toxic chemical in the mixture or trade name product under section 372.45 of the reporting rule. If you determine that you have imported, processed, or otherwise used the toxic chemical in the mixture or trade name product in excess of an applicable threshold, you must enter the generic chemical name given to you by your supplier in Section 2. If your supplier did not give you a generic chemical name, you must enter the name by which the supplier identified the chemical to you. (In some cases, this may be the same as the name of the mixture or trade name product.)

For example, your facility uses 20,000 pounds of a solvent which your supplier has told you contains eighty percent "chlorocyclocarbon," his generic name for a chemical subject to reporting under section 313. You therefore know that you have exceeded the use threshold for this toxic chemical. You would enter the name "chlorocyclocarbon," in the space provided in Section 2.

## 3. Activities and Uses of the Chemical at the Facility

This section requires an indication of whether the chemical is manufactured (including imported), processed, or otherwise used at the facility for which the form is being filed and the general nature of such activities and uses at the facility during the calendar year. Report activities that take place only at your facility, not activities that take place at other facilities involving your products. You must mark all of the appropriate blocks in this Section that apply to the activities at your facility. Refer to the definitions of "manufacture," "process," and "otherwise used" in section 372.3 of the reporting rule for explanations supplementing those provided below.

### 3.1 Manufacture

#### a. Produce.
A chemical included in this category is produced at the facility.

#### b. Import.
A chemical included in this category is imported to the facility.

#### c. For on-site use/processing.
A chemical included in this category is manufactured and then further processed or otherwise used at the same facility.

#### d. For sale/distribution.
A chemical in this category is manufactured specifically for sale or distribution outside the manufacturing facility.

#### e. As a byproduct.
A chemical in this category is produced coincidentally during the production, processing, use, or disposal of another chemical substance or mixture, and following its production, is separated from that other chemical substance or mixture.

#### f. As an impurity.
A chemical in this category is produced coincidentally with another chemical substance, and is processed, used, or distributed with it.

### 3.2 Process (incorporative-type activities)

#### a. As reactant.
A natural or synthetic chemical used in chemical reactions for the manufacture of another chemical substance or of a product. Includes, but is not limited to, feedstocks, raw materials, intermediates, and initiators.

#### b. As a formulation component.
A chemical added to a product or product mixture prior to further distribution of the product that aids the performance of the product in its use. Examples include, but are not limited to, additives, dyes, reaction diluents, initiators, solvents, inhibitors, emulsifiers, surfactants, lubricants, flame retardants, and rheological modifiers.

#### c. As an article component.
A chemical substance that becomes an integral component of an article distributed for industrial, trade, or consumer use.

#### d. Repackaging only.
Processing or preparation of a chemical or product mixture for distribution in commerce in a different form, state, or quantity.

### 3.3 Otherwise Used (non-incorporative-type activities)

#### a. As a chemical processing aid.
A chemical that is added to a reaction mixture to aid in the manufacture or synthesis of another chemical substance but does not intentionally remain in or become part of the product or product mixture. Examples of such chemicals include, but are not limited to, process solvents, catalysts, inhibitors, initiators, reaction terminators, and solution buffers.

#### b. As a manufacturing aid.
A chemical whose function is to aid the manufacturing process but does not become part of the resulting product. Examples include, but are not limited to, lubricants, metalworking fluids, coolants, refrigerants, and hydraulic fluids.

#### c. Ancillary or other use.
A chemical in this category is used at a facility for purposes other than as a chemical processing aid or manufacturing aid as described above. Includes, but is not limited to, cleaners, degreasers, lubricants, and fuels.

## 4. Maximum Amount of the Chemical On Site at Any Time During the Calendar Year

You must insert the appropriate code (see below) that indicates the maximum quantity of the chemical (in storage tanks, process vessels, on-site shipping containers, etc.) at your facility at any time during the calendar year. If the chemical was present at several locations within your facility, use the maximum <u>total</u> amount present at the entire facility at any one time.

| Range Code | Weight Range in Pounds From... | To.... |
|---|---|---|
| 01 | 0 | 99 |
| 02 | 100 | 999 |
| 03 | 1,000 | 9,999 |
| 04 | 10,000 | 99,999 |
| 05 | 100,000 | 999,999 |
| 06 | 1,000,000 | 9,999,999 |
| 07 | 10,000,000 | 49,999,999 |
| 08 | 50,000,000 | 99,999,999 |
| 09 | 100,000,000 | 499,999,999 |
| 10 | 500,000,000 | 999,999,999 |
| 11 | 1 billion | more than 1 billion |

If the toxic chemical was present at your facility as part of a mixture or trade name product, to determine the maximum quantity of the chemical present at the facility you must calculate only the weight of the toxic chemical, not the weight of the entire mixture or trade name product. See section 372.30(b) of the reporting rule for further information on how to calculate the weight of the chemical in the mixture or trade name product.

## 5. Releases of the Chemical to the Environment

In Section 5 you must account for the total aggregate releases of the toxic chemical from your facility to the environment for the calendar year. Releases to the environment include emissions to the air, discharges to surface waters, and releases to land and underground injection wells.

All air releases of the chemical from the facility must be covered. In case of doubt about whether an air release is a point or non-point release, it is important that the release be included as one or the other rather than omitted. Do not enter information on individual emission points or releases. Enter only the total release.

## 5.1 Fugitive or non-point air emissions.

These are releases to the air that are not released through stacks, vents, ducts, pipes, or any other confined air stream. You must include (1) fugitive equipment leaks from valves, pump seals, flanges, compressors, sampling connections, open-ended lines, etc.; (2) evaporative losses from surface impoundments; (3) releases from building ventilation systems; and (4) any other fugitive or non-point air emissions.

## 5.2 Stack or point air emissions.

These are releases to the air that are through stacks, vents, ducts, pipes, or other confined air streams. You must include storage tank emissions. Air releases from control equipment would generally fall in this category.

## 5.3 Discharges to water

You must enter the applicable letter code for the receiving stream or water body from Section 3.10 of Part I of the form. Also, you must enter the total annual amount of the chemical released from all discharge points at the facility to each receiving stream or water body. You must include process outfalls such as pipes and open trenches, releases from on-site wastewater treatment systems, and the contribution from stormwater runoff if applicable (see instructions for column C below). Do not include "indirect" discharges to surface waters such as to a POTW or off-site wastewater treatment facility. These must be reported in Section 6.

## 5.4 Underground injection

You must enter the total annual amount of the chemical that was injected into wells, including Class I and other types, at the facility.

## 5.5 Releases to land

You must report quantities of the chemical that were landfilled, impounded, or otherwise disposed of at the facility. Do not report land disposal at off-site locations in this section. You must enter the appropriate disposal code from the following list:

Disposal Codes

D02 Landfill
D03 Land Treatment/Application/Farming
D05 Surface Impoundment (to be closed as a Landfill)
D99 Other Disposal

Three lines are provided in this section of the form to accommodate various types of land disposal.

For the purpose of this form, a surface impoundment is considered "final disposal." Quantities of the chemical released to surface impoundments that are used merely as part of a wastewater treatment process generally must not be reported in this section of the form. However, if the impoundment accumulates sludges containing the chemical, you must include an estimate in this section unless the sludges are removed and otherwise disposed of (in which case they should be reported under the appropriate section of the form). For the purposes of this reporting, storage tanks are not considered to be a type of disposal and are not to be reported in this section of the form.

## A. Total Release

Only releases of the toxic chemical to the environment for the calendar year are to be reported in this section of the form. The total releases from your facility do not include transfers or shipments of the chemical from your facility for sale or distribution in commerce or of wastes to other facilities for treatment or disposal (see Section 6.1). Both routine releases, such as fugitive air emissions, and accidental or non-routine releases, such as chemical spills, must be included in your estimate of the quantity released.

## A.1 Reporting Ranges

For reports submitted for calendar years 1987, 1988, and 1989 only, you may take advantage of range reporting for releases that are less than 1,000 pounds for the year to an environmental medium. You may mark one of the three boxes, 0, 1-499, or 500-999, corresponding to releases of the chemical to any environmental medium (i.e., any line item); however, you do not have to use these range check boxes. You have the option of providing a specific figure in column A.2 as described below.

For releases of 1,000 pounds or more for the year to any medium, you must provide an estimate in pounds per year in column A.2. Any estimate provided in column A.2 is required to be accurate to no more than two significant figures. Beginning with reports for calendar year 1990, you may not use ranges to report; you must report in column A.2.

## A.2 Enter Estimates

You must provide your estimates of releases in pounds for the year in column A.2. This estimate is required to be accurate to no more than two significant figures.

## Calculating Releases

To provide the release information required in both Sections A.1 and A.2 in this section of the form, you must use all readily available data (including relevant monitoring data and emissions measurements) collected at your facility pursuant to other provisions of law or as part of routine plant operations, to the extent you have it for the toxic chemical.

When relevant monitoring data or emission measurements are not readily available, reasonable estimates of the amounts released must be made using published emission factors, material balance calculations, or engineering calculations. You may not use emission factors or calculations to estimate releases if more accurate data are available.

No additional monitoring or measurement of the quantities or concentrations of any toxic chemical released into the environment, or of the frequency of such releases, is required for the purpose of completing this form, beyond that which is required under other provisions of law or regulation or as part of routine plant operations.

You must estimate as accurately as possible the quantity in pounds of the chemical or chemical category that is released annually to each environmental medium. Do not include the quantity of components of a waste stream other than the toxic chemical in this estimate.

If the toxic chemical was present at your facility as part of a mixture or trade name product, you must calculate the releases of the chemical only. Do not include releases of the other components of the mixture or trade name product. If you only know about or are only able to estimate the releases of the mixture or trade name product as a whole, you must assume that the toxic chemical is released in proportion to its concentration in the mixture or trade name product. See section 372.30(b) of the reporting rule for further information on how to calculate the concentration and weight of the chemical in the mixture or trade name product.

If you are reporting a chemical category listed in section 372.65(c) of the reporting rule rather than a specific chemical, you must combine the release data for all chemicals in the listed chemical category (e.g., all glycol ethers or all chlorophenols) and report the aggregate amount for that chemical category. Do not report releases of each individual chemical in that category separately. For example, if your facility releases 3,000 pounds per year of 2-chlorophenol, 4,000 pounds per year of 3-chlorophenol, and 4,000 pounds per year of 4-chlorophenol, you should report that your facility releases 11,000 pounds per year of chlorophenols. (Other than for listed chemical categories in section 372.65(c) of the rule, each form must report for an individual chemical.

Listed chemicals with the qualifier "solution," such as sodium sulfate, in concentrations of 1 percent (or 0.1 percent in the case of a carcinogen) or greater, must be factored into threshold and release calculations, because threshold and release amounts relate to the amount of chemical in solution, not the amount of solution.

For metal compound categories (e.g., chromium compounds), report releases of only the parent metal. For example, a user of various inorganic chromium salts would report the total chromium released in each waste type regardless of the chemical form (e.g., as the original salts, chromium ion, oxide, etc.), and exclude any contribution to mass made by other species in the molecule.

## B. Basis of Estimate

For each release estimate you are required to indicate the principal method by which the quantity was derived. Enter the letter code to identify the method which applies to the largest portion of the total estimated quantity.

For example, if 40 percent of stack emissions of the reported substance were derived using monitoring data, 30 percent by mass balance, and 30 percent by emission factors, you would enter the code letter "M" for monitoring. The codes are as follows:

- M - Based on monitoring data or measurements for the toxic chemical as released to the environment and/or off-site facility.
- C - Based on mass balance calculations, such as calculation of the amount of the toxic chemical in streams entering and leaving process equipment.
- E - Based on published emission factors, such as those relating release quantity to throughput or equipment type (e.g., air emissions factors)
- O - Based on other approaches such as engineering calculations (e.g., estimating volatilization or solubility using published mathematical formulas) or best engineering judgment. This would include applying an estimated removal efficiency to a wastestream even if the composition of stream before treatment was fully characterized by monitoring data.

If the monitoring data, mass balance, or emission factor used to estimate the release is not specific to the toxic chemical, the estimate should be reported as based on engineering calculations or judgment.

## C. Percent From Stormwater

This column only relates to Section 5.3 - Discharges to Water. The quantity of the chemical released to any receiving stream or water body in each box in column A must include the amount contributed by stormwater runoff from the facility which contains the chemical. In addition, the percentage of the total quantity (by weight) of the chemical contributed by stormwater must be entered in column C. If your facility has monitoring data on the chemical and an estimate of flow rate, you must use this data to determine percent stormwater.

If your facility does not have periodic measurements of stormwater releases of the chemical but has submitted chemical specific monitoring data in permit applications, then these data must be used to calculate the percent contribution from stormwater. Flow rate data can be estimated by multiplying the annual amount of rainfall times the land area times the runoff coefficient. The runoff coefficient represents the fraction of rainfall that does not infiltrate into the ground but runs off as stormwater. The runoff coefficient is directly related to the land uses located in the drainage area and ranges from 0.5-0.8 for light industrial areas and 0.6-0.9 for heavy industrial areas. Site specific determinations can

be calculated using the following formula:

(1 x fractional paved or roofed area) + (0.2 x fractional grass area) + (0.3 x fractional graveled area) = site runoff coefficient

If you have monitored stormwater but did not detect the chemical, enter zero (0) in this space. If your facility has no stormwater monitoring data for the of the chemical, enter no data [N/D] in this space on the form.

## 6. Transfers of the Chemical in Waste to Off-Site Locations

You must report in this section the total annual quantity of the chemical sent to any of the off-site disposal, treatment, or storage facilities for which you have provided an address in Part II.

Line 6.1 is for transfers to a POTW. Lines 6.2 through 6.4 are provided for transfers to other off-site locations, including privately owned wastewater treatment facilities.

Enter, from Section 2 of Part II, the block number that corresponds to the off-site location to which you transferred waste containing the chemical. If you need additional space (i.e., you ship waste to more than three off-site locations), check the box at the bottom of Section 6 and use the Supplemental Information sheet (Part IV).

### A. Total Transferred

You must follow the instructions for providing estimates as presented in the instructions for column A of Section 5 above. You must enter the amount in pounds of only the toxic chemical that is being transferred; do not enter the total poundage of wastes, including mixtures or trade name products containing the chemical. As with Section 5, you may report in ranges only for calendar years 1987, 1988, and 1989.

### B. Basis of Estimate

You must identify the basis for your estimate. Follow the instructions and use the same codes as presented in the instructions for column B of Section 5.

### C. Type of Treatment/Disposal

You must enter one of the following codes to identify the type of treatment or disposal method used by the off-site location for the chemical being reported. You may have this information in your copy of EPA Form SO, Item S of the Annual/Biennial Hazardous Waste Treatment, Storage, and Disposal Report (RCRA). Applicable codes for this section are as follows:

M10 Storage Only
M20 Reuse as Fuel/Fuel Blending
M40 Solidification/Stabilization
M50 Incineration/Thermal Treatment
M61 Wastewater Treatment (Excluding POTW)
M69 Other Treatment
M71 Underground Injection
M72 Landfill/Disposal Surface Impoundment
M73 Land Treatment
M79 Other Land Disposal
M90 Other Off-Site Management
M91 Transfer to Waste Broker
M99 Unknown

## 7. Waste Treatment Methods and Efficiency

In Section 7, you must provide the following information related to the chemical whose releases are being reported: (A) the general wastestream types containing the chemical being reported; (B) the waste treatment methods (if any) used on all wastestreams containing the chemical; (C) the range of concentrations of the chemical in the influent to the treatment method (D) whether sequential treatment is used; (E) the efficiency or effectiveness of each treatment method in removing the chemical; and (F) whether the treatment efficiency figure was based on actual operating data. You must use a separate line in Section 7 for each treatment method used on a wastestream. This section is to be used to report only treatment of wastestreams at your facility, not treatment off-site.

### A. General Wastestream

For each waste treatment method report you must indicate the type of wastestream containing the chemical that is treated. Enter the letter code that corresponds to the general wastestream type:

A = Gaseous (including gases, vapors, airborne particulates)
W = Wastewater (aqueous waste)
L = Liquid waste (non-aqueous waste)
S = Solid waste (including sludges and slurries)

If a waste is a mixture of water and organic liquid, you must report it under wastewater unless the organic content exceeds 50 percent. Slurries and sludges containing water must be reported as solid waste if they contain appreciable amounts of dissolved solids, or solids that may settle, such that the viscosity or density of the waste is considerably different from that of process wastewater.

### B. Treatment Method

Codes for treatment methods are included in Table I of these instructions. You must enter the code for each treatment method used on a wastestream containing the toxic chemical, regardless of whether this treatment method actually removes the specific chemical. Treatment methods must be reported by type of waste being treated (i.e., gaseous wastes, aqueous wastes, liquid non-aqueous wastes, and solids).

Wastestreams containing the chemical may have a single source or may be aggregates of many sources. For example, process water from several pieces of equipment at your facility may be combined prior to treatment. Report treatment methods that apply to the aggregate wastestream as well as treatment methods that apply to individual wastestreams. If your facility treats various wastewater streams containing the chemical in different ways, the different treatment methods must each be listed separately.

Your facility may have several pieces of equipment performing a similar service. It is not necessary to enter four lines of data to cover four scrubber units, for example, if all four are treating wastes of similar character (e.g., sulfuric acid mist emissions), have similar influent concentrations, and have similar removal efficiencies. If, however, any of these parameters differ from one unit to the next, each scrubber must be listed separately.

### C. Range of Influent Concentration

The form requires an indication of the range of concentration of the toxic chemical in the wastestream (i.e., the influent) as it typically enters the treatment equipment. You must enter in the space provided one of

the following code numbers corresponding to the concentration of the chemical in the influent:

1 = Greater than 1 percent
2 = 100 parts per million (0.01 percent) to 1 percent (10,000 parts per million)
3 = 1 part per million to 100 parts per million
4 = 1 part per billion to 1 part per million
5 = Less than 1 part per billion

Note that parts per million (ppm) is milligrams/kilogram (mass/mass) for solids and liquids; cubic centimeters/cubic meter (volume/volume) for gases; milligrams/liter for solutions or dispersions of the chemical in water; and milligrams of chemical/kilogram of air for particulates in air. If you have particulate concentrations (at standard temperature and pressure) as grains/cubic foot of air, multiply by 1766.6 to convert to parts per million: if in $mg/m^3$, multiply by 0.773 to obtain ppm. (Note: Factors are for standard conditions of $0^{\circ}C$ ($32^{\circ}F$) and 760 mmHg atmospheric pressure).

## D. Sequential Treatment?

You may use various treatment steps in a sequence but only be able to estimate the treatment efficiency of the overall treatment process. If this is the case, you must enter codes for all of the treatment steps in the process. You must check the column D "sequential treatment?" box for all of these steps in the same sequence. With respect to information that must be supplied in columns C and E, you must provide the range of influent concentrations (column C) in connection with the first step of the sequential treatment. Then provide the treatment efficiency (column E) in connection with the last step in the treatment. You do not need to complete C or E for any intermediate step in the sequence.

## E. Treatment Efficiency Estimate

In the space provided, you must enter the number that indicates the percentage of the toxic chemical that is removed from the wastestream. The treatment efficiency (expressed as percent removal) represents any destruction, biological degradation, chemical conversion, or physical removal of the chemical from the wastestream being treated. This efficiency must represent the mass or weight percentage of chemical destroyed or removed, not just changes in volume or concentration of the chemical or the wastestream. The efficiency indicated for a treatment method must refer only to the percent conversion or removal of the listed toxic chemical from the wastestream, not the percent conversion or removal of other wastestream constituents (alone or together with the listed chemical), and not the general efficiency of the method for any wastestream.

For some treatments, the percent removal will represent removal by several mechanisms, as in secondary wastewater treatment, where a chemical may evaporate, be biodegraded, or be physically removed in the sludge.

Percent removal must be calculated as follows:

$$\frac{(I - E)}{I} \times 100$$

where I = mass of the chemical in the influent wastestream and E = mass of the chemical in the effluent wastestream.

The mass or weight of chemical in the wastestream being treated must be calculated by multiplying the concentration (by weight) of the chemical in the wastestream times the flow rate. When calculating or estimating percent removal efficiency for various wastestreams, the percent removal must compare the gaseous effluent from treatment to the gaseous influent, the aqueous effluent from treatment to the aqueous influent, and similarly for organic liquid and solid waste. However, some treatment methods may not result in a comparable form of effluent wastestream. Examples are incineration or solidification of wastewater. In these cases, the percent removal of the chemical from the influent wastestream would be reported as 100 percent because the wastestream does not exist in a comparable form after treatment.

Some of the treatments listed in Table I do not destroy, chemically convert, or physically remove the chemical from its wastestream. Some examples include fuel blending and evaporation. For these treatment methods, an efficiency of zero must be reported.

For metal compounds, the reportable concentration and treatment efficiency must be calculated based on the weight of the parent metal and not the weight of the metal compounds. Metals are not destroyed but can only be physically removed or chemically converted from one form into another. The treatment efficiency reported must only represent physical removal of the parent metal from the wastestream, not the percent chemical conversion of the metal compound. If a listed treatment method converts but does not remove a metal (e.g., chromium reduction), the method must be reported, but the treatment efficiency must be reported as zero.

All data available at your facility must be utilized to calculate treatment efficiency and influent chemical concentration. You are not required to collect any new data for the purposes of this reporting requirement. If data are lacking, estimates must be made using best engineering judgment or other methods.

## F. Based on Operating Data?

This column requires you to indicate "Yes" or "No" to whether the treatment efficiency estimate is based on actual operating data. For example, you would check "Yes" if the estimate is based on monitoring of influent and effluent wastes under typical operating conditions. If the efficiency estimate is based on published data for similar processes or on equipment supplier's literature, or if you otherwise estimated either the influent or effluent waste comparison or the flow rate, you must check "No."

# 8. Optional Information on Waste Minimization

Information provided in Part III, Section 8, of the form is optional. This section allows you to identify waste minimisation efforts relating to the reported toxic chemical that may not have been reflected in your responses to previous sections of the form.

## A. Type of modification

Enter one code from the following list that best describes the type of waste minimisation activity:

M1 - Recycling/reuse on-site.
M2 - Recycling/reuse off-site.
M3 - Equipment/technology modifications.
M4 - Process procedure modifications.
M5 - Reformulation/redesign of product.
M6 - Substitution of raw materials.
M7 - Improved housekeeping training, inventory control.
M8 - Other waste minimisation technique.

## B. Quantity of the chemical in the wastestream prior to treatment/ disposal

Enter the pounds of the toxic chemical in wastes in the reporting year and the pounds in wastes in the year prior to implementing waste minimisation (the "base year"). Alternatively, to protect confidential information, you may wish to enter only the percentage by which the weight of the chemical in the wastes has changed. This figure (percentage) may be calculated using the following formula:

$$\frac{\text{toxic chemical in wastes in reporting year} - \text{toxic chemical in wastes in prior year}}{\text{toxic chemical in wastes in prior year.}} \times 100$$

The resulting figure may be either negative or positive.

## C. Index

Enter the ratio of reporting-year production to production in the base year. This index should be calculated to most closely reflect activities involving the chemical. Examples of acceptable indices include:

- Chemical produced in 1987/chemical produced in 1986.
- Paint produced in 1987/paint produced in 1986.
- Appliances coated in 1987/appliances coated in 1986.
- Square feet of solar collector fabricated in 1987/square feet of solar collector fabricated in 1986.
- Value of sales in 1987/value of sales in 1986.

For example, a company manufactures 200,000 pounds of a chemical in 1986 and 250,000 pounds of the same chemical in 1987. The index figure to report would be 1.3 (1.25 rounded). The index provides a means for users of the data to distinguish the effects of changes in business activity from the effects specifically of waste minimisation efforts. It is not necessary to indicate the units on which the index is based.

## D. Reason for action

Finally, enter the codes from the following list that best describe the reason for initiating the waste minimisation effort:

R1 - Regulatory requirement for the waste.
R2 - Reduction of treatment/disposal costs.
R3 - Other process cost reduction.
R4 - Self-initiated program.
R5 - Other (e.g., discontinuation of product, occupational safety, etc.).

# TABLE I
# TREATMENT CODES

## AIR EMISSIONS TREATMENT

A01 Flare
A02 Condenser
A03 Scrubber
A04 Absorber
A05 Electrostatic Precipitator
A06 Mechanical Separation
A07 Other Air Emission Treatment

## BIOLOGICAL TREATMENT

B11 Biological Treatment -- Aerobic
B21 Biological Treatment -- Anaerobic
B31 Biological Treatment -- Facultative
B99 Biological Treatment -- Other

## CHEMICAL TREATMENT

C01 Chemical Precipitation -- Lime or Sodium Hydroxide
C02 Chemical Precipitation -- Sulfide
C09 Chemical Precipitation -- Other
C11 Neutralisation
C21 Chromium Reduction
C31 Complexed Metals Treatment (other than pH Adjustment)
C41 Cyanide Oxidation -- Alkaline Chlorination
C42 Cyanide Oxidation -- Electrochemical
C43 Cyanide Oxidation -- Other
C44 General Oxidation (including Disinfection) -- Chlorination
C45 General Oxidation (including Disinfection) -- Ozonation
C46 General Oxidation (including Disinfection) -- Ozonation
C99 Other Chemical Treatment

## INCINERATION/THERMAL TREATMENT

F01 Liquid Injection
F11 Rotary Kiln with Liquid Injection Unit
F19 Other Rotary Kiln
F31 Two Stage
F41 Fixed Hearth
F42 Multiple Hearth
F51 Fluidized Bed
F61 Infra-Red
F71 Fume/Vapor
F81 Pyrolytic Destructor
F82 Wet Air Oxidation
F83 Thermal Drying/Dewatering
F99 Other Incineration/Thermal Treatment

## SOLIDIFICATION/STABILIZATION

G01 Cement Processes (including Silicates)
G09 Other Pozzolonic Processes (including Silicates)
G11 Asphaltic Processes
G21 Thermoplastic Techniques
G99 Other Solidification Processes

## PHYSICAL TREATMENT

P01 Equalisation
P09 Other Blending
P11 Settling/Clarification
P12 Filtration
P13 Sludge Dewatering (non-thermal)
P14 Air Flotation
P15 Oil Skimming
P16 Emulsion Breaking -- Thermal
P17 Emulsion Breaking -- Chemical
P18 Emulsion Breaking -- Other
P19 Other Liquid Phase Separation
P21 Adsorption -- Carbon
P22 Adsorption -- Ion Exchange (other than for recovery/reuse)
P23 Adsorption -- Resin
P29 Adsorption -- Other
P31 Reverse Osmosis (other than for recovery/reuse)
P41 Stripping -- Air
P42 Stripping -- Steam
P49 Stripping -- Other
P51 Acid Leaching (other than for recovery/reuse)
P61 Solvent Extraction (other than recovery/reuse)
P99 Other Physical Treatment

## RECOVERY/REUSE

R01 Reuse as Fuel -- Industrial Kiln
R02 Reuse as Fuel -- Industrial Furnace
R03 Reuse as Fuel -- Boiler
R04 Reuse as Fuel -- Fuel Blending
R09 Reuse as Fuel -- Other
R11 Solvents/Organics Recovery -- Batch Still Distillation
R12 Solvents/Organics Recovery -- Thin-Film Evaporation
R13 Solvents/Organics Recovery -- Fractionation
R14 Solvents/Organics Recovery -- Solvent Extraction
R19 Solvents/Organics Recovery -- Other
R21 Metals Recovery -- Electrolytic
R22 Metals Recovery -- Ion Exchange
R23 Metals Recovery -- Acid Leaching
R24 Metals Recovery -- Reverse Osmosis
R26 Metals Recovery -- Solvent Extraction
R29 Metals Recovery -- Other
R99 Other Reuse or Recovery

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 5 1989

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Dear Facility Compliance Manager:

This Toxic Chemical Release Inventory Reporting Package is being distributed by direct mailing to all facilities that reported for the 1987 and 1988 reporting years. This reporting package contains an updated Form R and Instructions, a revised Q & A document and other information that I hope will help you in completing your 1989 reports.

For the 1989 and subsequent reporting years I want to strongly encourage you to use magnetic media to submit your Form R data. Submitting by magnetic media has a distinct advantage over paper submission. If you submit by tape or diskette you can be sure that the information you submit is the information that will be uploaded to the EPA mainframe computer. While I see this as a major consideration for your facility, I must admit that EPA has a selfish reason in promoting magnetic media submissions. It costs significantly less to enter Form R submissions directly from magnetic media than it does to key the data from a form.

This reporting package contains a set of instructions for submitting via magnetic media. You might also consider obtaining commercially available software packages for use with personal computers. Many of these packages will assist you in completing Form R, prompt you if you make any errors, and many will create the magnetic media disk files for submission. Others will also generate a paper version of your Form R submission to send to the State (many States may not yet accept magnetic media submissions). A list of Form R software suppliers is printed on the reverse side of this letter.

I recognize that you put a lot of effort into developing your Form R reports. The quality of the TRI database depends both on your efforts to develop accurate estimates and on our efforts to accurately enter the data you submit. Use of magnetic media will, I believe, help both of us reach these data quality goals.

Sincerely,

Charles L. Elkins

Charles L. Elkins, Director
Office of Toxic Substances

Printed on Recycled Paper

NASSAU COUNTY DEPARTMENT OF HEALTH
NASSAU COUNTY PUBLIC HEALTH ORDINANCE - ARTICLE XI
PERMIT COMPLIANCE INSPECTION REPORT
BUREAU OF ENVIRONMENTAL MANAGEMENT

Facility Name: SULZER METCO U.S. Inc. | Facility I.D. No.: 1535
Address: 220 MILLER PL., HICKSVILLE, N.Y.
Contact Person: BOB MURPHY
Title: LOGISTICS MGR. | Phone: 338-2334
Date Permit Expires: 9/1/07. | New [ ] Renewal [X]

| ITEM | Yes | No | N/A |
|---|---|---|---|
| **A. TANK STORAGE** | | | |
| 1.Leakage/Spill Monitoring Equipment Functioning | | | ✓ |
| 2.Means of Calculating Product Delivery & Use | | | ✓ |
| 3.Proper Overfill Protection | | | ✓ |
| 4.Adequate Spill Control & Containment | | | ✓ |
| 5.Roof Over Storage/Transfer Operation | | | ✓ |
| 6.Proper Testing & Inspections | | | ✓ |
| 7.Proper Labels & Notices Posted | | | ✓ |
| 8.Standard Operating Procedures Posted | | | ✓ |
| **B. RECORDS & REPORTS** | | | |
| 1.Records of Chemical Deliveries & Use In Order | | | ✓ |
| 2.Records of Inspections In Order | | | ✓ |
| 3.Records of Leaks & Spills In Order | | | ✓ |
| 4.Waste Records In Order | ✓ | | |
| 5.Reports Submitted On Time | | | ✓ |

| ITEM | Yes | No | N/A |
|---|---|---|---|
| **C. BULK & CONTAINER STORAGE** (Solid & Liquid Haz. Waste) | | | |
| 1.Adequate Spill Control & Containment | ✓ | | |
| 2.Proper Segregation of Incompatible Wastes | ✓ | | |
| 3.Bulk Chemicals Stored On Pallets & Under Roof | ✓ | | |
| 4.Storage Area Secure | ✓ | | |
| 5.Proper Stack Size & Adequate Aisles | ✓ | | |
| 6.Containers Off Ground, Capped, Not Leaking | ✓ | | |
| 7.Proper Labels & Notices Posted | ✓ | | |
| 8.Standard Operating Procedures Posted | ✓ | | |
| **D. WASTES - ESTIMATED QUANTITIES ON SITE** | | | |
| 1.Containers | ✓ | | |
| 2.Tanks | | ✓ | |
| **E. FLOOR DRAINS** | | | ✓ |
| **F. EMISSION POINTS** | | | ✓ |
| **G. OVERALL INSPECTION** [X] Satisfactory [ ] Non-Compliance | | | |

| Date | Item | |
|---|---|---|
| | A. | TWO ≈ 3" STEEL VENT PIPES ON SOUTH SIDE OF BUILDING. OPERATOR TO INVESTIGATE FOR ~~IN~~ PROPER CLOSURE, PER 1986, OF TANKS. VENTS MUST BE REMOVED. |
| | C-8 | S.O.P. POSTED |
| | C- | PARTICULATE MATERIAL REMOVED FROM ROOF. FACILITY WAS SCRUBBED & VACUUMED. |
| | C- | SOURCES OF PARTICULATE ON ROOF & INSIDE FACILITY HAVE BEEN IDENTIFIED AND ARE ELIMINATED. |

Signature of Inspector | Date 10/14/03. | Signature of Company Representative | Date 10/14/03

HE-1508, 12/94

Prospect Avenue Form R 2003

| Brass | Aluminum | Stainless Steel | Copper | Bronze/Copper | Leaded Bronze/Copper | Bronze | Tellurium Copper | Lead/Copper Anaconda | Steel | Duronze 90Cu |
|---|---|---|---|---|---|---|---|---|---|---|
| 34 | 13 | 5 | 146 | | 461 | 72 | 4,807 | 2,540 | 27 | 6 |
| 49 | 26 | 14 | 1,048 | | 14 | | 3,032 | 842 | 50 | 55 |
| 168 | 114 | 55 | 169 | | 36 | | | 1,427 | 9 | 643 |
| 13 | 90 | 304 | 20,550 | | 46 | | | | 12 | 2,780 |
| 773 | 868 | 20 | 1,726 | | 113 | | | | 20 | 189 |
| 68 | 4 | 338 | 493 | | 68 | | | | 4 | 344 |
| 33 | 42 | 397 | 3,367 | | 81 | | | | 8 | |
| 508 | 8 | 226 | 841 | | 95 | | | | 29.5 | |
| 638 | 29 | 121 | 2,415 | | 996 | | | | 76.5 | |
| 312 | 20 | 13 | 619 | | 144.5 | | | | 11.5 | |
| 78 | 42 | 220 | 71 | | 1,355 | | | | 15 | |
| 747 | 17 | 296 | 9 | | 1,564 | | | | 225 | |
| 881 | 44 | 25 | 4,481 | | 193 | | | | 71.5 | |
| 1,411 | 443 | 32 | | | | | | | 6 | |
| 591 | 14 | 6 | | | | | | | 1.5 | |
| 72 | 43 | 11 | | | | | | | 8 | |
| 170 | 8 | 2 | | | | | | | 8 | |
| 532 | 3.5 | 77 | | | | | | | 15 | |
| 488 | 9 | 137 | | | | | | | | |
| 972 | 19 | 104 | | | | | | | | |
| 157 | 43 | 11 | | | | | | | | |
| 156 | 173 | 10 | | | | | | | | |
| 957 | 159 | 6 | | | | | | | | |
| 6 | 136 | 270.5 | | | | | | | | |
| 29 | 102 | 67 | | | | | | | | |
| 44 | 428 | 221.5 | | | | | | | | |
| 278 | 51 | | | | | | | | | |
| 121 | 221 | | | | | | | | | |
| 60 | 358 | | | | | | | | | |
| 215 | 129 | | | | | | | | | |
| 253 | 159 | | | | | | | | | |
| 293 | 5 | | | | | | | | | |
| 1,034 | 12 | | | | | | | | | |
| 97 | 135 | | | | | | | | | |
| 172 | 88 | | | | | | | | | |

| | |
|---|---|
| 404 | 4 |
| 497 | 3 |
| 1,284 | 166 |
| 354 | 11 |
| 829 | 14 |
| 27 | 36 |
| 265 | 36 |
| 110 | 43 |
| 133 | 173 |
| 611 | 518 |
| 17 | 4.5 |
| 145 | 153 |
| 84 | 57 |
| 458 | 2 |
| 176 | 4.5 |
| 1,085 | 9 |
| 117 | 69 |
| 282 | 73 |
| 99 | 226 |
| 3 | 1 |
| 46.5 | 57 |
| 500 | 54 |
| 15 | 9,072 |

| Brass | Aluminum | Stainless Steel | Copper | Bronze/Copper | Leaded Bronze/Copper | Bronze | Tellurium Copper | Lead/Copper Anaconda | Steel | Duronze 90Cu |
|---|---|---|---|---|---|---|---|---|---|---|
| **19,951.50** | **14,841.50** | **2,989.00** | **35,935.00** | **0.00** | **5,166.50** | **72.00** | **7,839.00** | **4,809.00** | **597.50** | **4,017.00** |
| 3.7 Pb | | | | 1.7% Pb | 1.6% Pb | | | 0.9% Pb | | 0.05% Pb |
| **738 lb. Pb** | | | | **0** | **82 lb. Pb** | | | **43 lb. Pb** | | **2 lb. Pb** |
| 63% Cu | | | 100% Cu | 89% Cu | 89% Cu | 89% Cu | 99% Cu | 99% Cu | | 90% Cu |
| **12,569 lb. Cu** | | | **35,935 lb. Cu** | **0** | **4,597 lb. Cu** | **64 lb. Cu** | **7,760 lb. Cu** | **4,760 lb. Cu** | | **3,615 lb. Cu** |

**Total Pb = 865 lb.**
**Total Cu = 69,300 lb.**

Form Approved OMB Number: 2070-0093
Approval Expires: 01/31/2006

(IMPORTANT: Type or print; read instructions before completing form)



EPA

United States Environmental Protection Agency

# FORM R

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also Known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number

Toxic Chemical, Category or Generic Name

**WHERE TO SEND COMPLETED FORMS:** 1. TRI Data Processing Center, P. O. Box 1513, Lanham, MD 20703-1513, ATTN: TOXIC CHEMICAL RELEASE INVENTORY 2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision

For EPA use only

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART 1. FACILITY IDENTIFICATION INFORMATION

## SECTION 1. REPORTING YEAR _____

## SECTION 2. TRADE SECRET INFORMATION

2.1 Are you claiming the toxic chemical identified on page 2 trade secret?

☐ Yes (Answer question 2.2; Attach substantiation forms) ☐ No (Do not answer 2.2; Go to Section 3)

2.2 Is this copy ☐ Sanitized ☐ Unsanitized

(Answer only if "YES" in 2.1)

## SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| | | |

## SECTION 4. FACILITY IDENTIFICATION

4.1 TRI Facility ID Number

Facility or Establishment Name

Facility or Establishment Name or Mailing Address (If different from street address)

Street

Mailing Address

City/County/State/Zip Code

City/State/Zip Code

Country (Non-US)

4.2 This report contains information for: (Important: Check a or b; check c or d if applicable) a. ☐ An entire facility b. ☐ Part of a facility c. ☐ A Federal facility d. ☐ GOCO

4.3 Technical Contact Name

Telephone Number (include area code)

Email Address

4.4 Public Contact Name

Telephone Number (include area code)

| 4.5 SIC Code (s) (4 digits) | Primary a. | b. | c. | d. | e. | f. |
|---|---|---|---|---|---|---|
| | | | | | | |

| 4.6 Latitude | Degrees | Minutes | Seconds | Longitude | Degrees | Minutes | Seconds |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| 4.7 Dun & Bradstreet Number (s) (9 digits) | 4.8 EPA Identification Number (RCRA ID No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. | a. | a. | a. |
| b. | b. | b. | b. |

## SECTION 5. PARENT COMPANY INFORMATION

5.1 Name of Parent Company NA ☐

5.2 Parent Company's Dun & Bradstreet Number NA ☐

# FORM R

PART II. TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

TRI Facility ID Number

Toxic Chemical, Category or Generic Name

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

1.1 CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)

1.2 Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)

1.3 Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "yes". Generic Name must be structurally descriptive.)

1.4 **Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.**
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA ☐ | | | | | | | | | | | | | | | | | |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

2.1 Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces and punctuation.)

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

**(Important: Check all that apply.)**

**3.1 Manufacture the toxic chemical:**

a. ☐ Produce b. ☐ Import

If produce or import

c. ☐ For on-site use/processing
d. ☐ For sale/distribution
e. ☐ As a byproduct
f. ☐ As an impurity

**3.2 Process the toxic chemical:**

a. ☐ As a reactant
b. ☐ As a formulation component
c. ☐ As an article component
d. ☐ Repackaging
e. ☐ As an impurity

**3.3 Otherwise use the toxic chemical:**

a. ☐ As a chemical processing aid
b. ☐ As a manufacturing aid
c. ☐ Ancillary or other use

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

4.1 ☐ (Enter two digit code from instruction package.)

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter a range code** or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA ☐ | | | |
| 5.2 | Stack or point air emissions | NA ☐ | | | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |

If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box ☐ and indicate the Part II, Section 5.3 page number in this box. ☐ (example: 1,2,3, etc.)



*For Dioxin or Dioxin-like compounds, report in grams/year.
** Range Codes: A= 1-10 pounds; B= 11-499 pounds; C= 500-999 pounds.

# FORM R

PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

Toxic Chemical, Category or Generic Name

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (continued)

| | | NA | A. Total Release (pounds/year*) (enter range code ** or estimate ) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I Wells | ☐ | | |
| 5.4.2 | Underground Injection onsite to Class II-V Wells | ☐ | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1A | RCRA Subtitle C landfills | ☐ | | |
| 5.5.1B | Other landfills | ☐ | | |
| 5.5.2 | Land treatment/application farming | ☐ | | |
| 5.5.3A | RCRA Subtitle C surface impoundments | ☐ | | |
| 5.5.3B | Other surface impoundments | ☐ | | |
| 5.5.4 | Other disposal | ☐ | | |

## SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1 Total Transfers (pounds/year*) (enter range code ** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| | |

6.1.B ____ POTW Name

POTW Address

City | State | County | Zip

6.1.B ____ POTW Name

POTW Address

City | State | County | Zip

If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box ☐ and indicate the Part II, Section 6.1 page number in this box ☐ (example: 1,2,3, etc.)

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2.____ Off-Site EPA Identification Number (RCRA ID No.)

Off-Site Location Name

Off-Site Address

City | State | County | Zip | Country (Non-US)

Is location under control of reporting facility or parent company? ☐ Yes ☐ No



* For Dioxin or Dioxin-like compounds, report in grams/year
** Range Codes: A - 1-10 pounds; B - 11-499 pounds; C - 500 - 999 pounds.

# FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

Toxic Chemical, Category or Generic Name

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (CONTINUED)

| A. Total Transfers (pounds/year*) (enter range code**or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

6.2 ____ Off-Site EPA Identification Number (RCRA ID No.)

Off-Site Location Name

Off-Site Address

City | State | County | Zip | Country (Non-US)

Is location under control of reporting facility or parent company? Yes ☐ No ☐

| A. Total Transfers (pounds/year*) (enter range code**or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

### SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

☐ Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.1a | 7A.1b | 1 | | 2 | | 3 | 4 | | 7A.1c | 7A.1d | 7A.1e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes ☐ No ☐ |
| 7A.2a | 7A.2b | 1 | | 2 | | 3 | 4 | | 7A.2c | 7A.2d | 7A.2e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes ☐ No ☐ |
| 7A.3a | 7A.3b | 1 | | 2 | | 3 | 4 | | 7A.3c | 7A.3d | 7A.3e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes ☐ No ☐ |
| 7A.4a | 7A.4b | 1 | | 2 | | 3 | 4 | | 7A.4c | 7A.4d | 7A.4e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes ☐ No ☐ |
| 7A.5a | 7A.5b | 1 | | 2 | | 3 | 4 | | 7A.5c | 7A.5d | 7A.5e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes ☐ No ☐ |

If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box ☐ and indicate the Part II, Section 6.2/7 page number in this box: ☐ (example: 1,2,3,etc.)



*For Dioxin or Dioxin-like compounds, report in grams/year

**Range Codes: A=1 - 10 pounds; B=11 - 499 pounds C= 500-999 pounds.

# FORM R

PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| |
| Toxic Chemical, Category or Generic Name |
| |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☐ Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

1 ☐ 2 ☐ 3 ☐

## SECTION 7C. ON-SITE RECYCLING PROCESSES

☐ Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐

## SECTION 8. SOURCE REDUCTION AND RECYLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | | | | |
| 8.1b | Total other on-site disposal or other releases | | | | |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | | | | |
| 8.1d | Total other off-site disposal or other releases | | | | |
| 8.2 | Quantity used for energy recovery onsite | | | | |
| 8.3 | Quantity used for energy recovery offsite | | | | |
| 8.4 | Quantity recycled onsite | | | | |
| 8.5 | Quantity recycled offsite | | | | |
| 8.6 | Quantity treated onsite | | | | |
| 8.7 | Quantity treated offsite | | | | |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year)* | | | | |
| 8.9 | Production ratio or activity index | | | | |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

8.11 Is additional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) ☐ Yes ☐ No



*For Dioxin or Dioxin-like compounds, report in grams/year

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# FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI FACILITY ID NUMBER: 11590PRKNL1101P

Toxic Chemical, Category, or Generic Name: Cobalt Powder

**WHERE TO SEND COMPLETED FORMS:**
1. EPCRA Reporting Center, P.O. Box 3348, Merrifield, VA 22116-3348, ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

For EPA use only

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 93

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?
[ ] Yes (Answer question 2.2; Attach substantiation forms) [X] No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy: [ ] Sanitized [X] Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official:
Joe Macri, Manager Facilities and Transportation

Signature: J. Macri

Date Signed: June 30, 1994

**SECTION 4. FACILITY IDENTIFICATION**

4.1
Facility or Establishment Name: Metco Division Perkin-Elmer
TRI Facility ID Number: 11590PRKNL1101P
Street Address: 1101 Prospect Avenue
City: Westbury
County: Nassau
State: New York
Zip Code: 11590
Mailing Address (if different from street address):
City:
State:
Zip Code:

PUT LABEL HERE

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# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11590PRKNL1101P

Toxic Chemical, Category, or Generic Name: Cobalt Powder

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | |
|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | b. ☒ Part of a facility |
| 4.3 | Technical Contact | Name: Joe Macri | Telephone Number (include area code): (516) 334-1300 |
| 4.4 | Public Contact | Name: Joe Macri | Telephone Number (include area code): (516) 334-1300 |

| 4.5 SIC Code (4-digit) | a. 3542 | b. | c. | d. | e. | f. |
|---|---|---|---|---|---|---|

| 4.6 Latitude and Longitude | Latitude | | | Longitude | | |
|---|---|---|---|---|---|---|
| | Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| | 075 | 09 | 50 | 027 | 53 | 16 |

| | | |
|---|---|---|
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a. 05-773-1663<br>b. |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a. NYD131318651<br>b. |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a. N/A<br>b. |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a. N/A<br>b. |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company | ☐ NA — Perkin-Elmer Corporation |
| 5.2 | Parent Company's Dun & Bradstreet Number | ☐ NA — (9 digits) 00-118-4480 |

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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| **Toxic Chemical, Category, or Generic Name** |
| Cobalt Powder |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)<br>7440-48-4 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)<br>Cobalt |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.)<br>N/A |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.)<br>N/A |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | |
|---|---|---|---|
| 3.1 | Manufacture the toxic chemical: | a. ☐ Produce<br>b. ☐ Import | If produce or import:<br>c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | Process the toxic chemical: | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. ☐ As an article component<br>d. ☐ Repackaging |
| 3.3 | Otherwise use the toxic chemical: | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☒ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 03 | (Enter two-digit code from instruction package.) |

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11590PRKNL1101P

Toxic Chemical, Category, or Generic Name: Cobalt Powder

## SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | [X] NA | | | |
| 5.2 | Stack or point air emissions | [ ] NA | B | C | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name: N/A | | | | |
| 5.3.2 | Stream or Water Body Name: N/A | | | | |
| 5.3.3 | Stream or Water Body Name: N/A | | | | |
| 5.4 | Underground injections on-site | [X] NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | [X] NA | | | |
| 5.5.2 | Land treatment/ application farming | [X] NA | | | |
| 5.5.3 | Surface impoundment | [X] NA | | | |
| 5.5.4 | Other disposal | [X] NA | | | |

[ ] Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Cobalt Powder |

## SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 Discharges to receiving streams or water bodies (enter one name per box) | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |

## SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

#### 6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| N/A | |

#### 6.1.B POTW Name and Location Information

| 6.1.B.__ POTW Name | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Sections 5.3/6.1 page this is, here. [ ]
(example: 1, 2, 3, etc.)



Range Codes: A = 1 - 10 pounds; B = 11 - 499 pour
C = 500 - 999 pounds.

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Cobalt Powder |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: Loni-Jo Metal Corporation

Street Address: 70 Kinkel Street

City: Westbury | County: Nassau

State: New York | Zip Code: 11590

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. B | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: N/A

Street Address:

City: | County:

State: | Zip Code:

Is location under control of reporting facility or parent company? [ ] Yes [ ] No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Section 6.2 page this is, here. [ ] (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds.

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United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Cobalt Powder |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes [ ] No [ ] |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes [ ] No [ ] |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes [ ] No [ ] |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes [ ] No [ ] |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes [ ] No [ ] |

If additional copies of page 7 are attached, indicate the total number of pages in this box [ ] and indicate which page 7 this is, here. [ ] (example: 1, 2, 3, etc.)

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Cobalt Powder |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[X] Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ]

## SECTION 7C. ON-SITE RECYCLING PROCESSES

[X] Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 [ ]

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11590PRKNL1101P

Chemical Category, or Generic Name: Cobalt Powder

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | *All quantity estimates can be reported using up to two significant figures.* | Column A 1992 (pounds/year) | Column B 1993 (pounds/year) | Column C 1994 (pounds/year) | Column D 1995 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released * | 0 | 0 | 0 | 0 |
| 8.2 | Quantity used for energy recovery on-site | 0 | 0 | 0 | 0 |
| 8.3 | Quantity used for energy recovery off-site | 0 | 0 | 0 | 0 |
| 8.4 | Quantity recycled on-site | 0 | 0 | 0 | 0 |
| 8.5 | Quantity recycled off-site | 120 | 150 | 180 | 180 |
| 8.6 | Quantity treated on-site | 0 | 0 | 0 | 0 |
| 8.7 | Quantity treated off-site | 0 | 0 | 0 | 0 |

| | | |
|---|---|---|
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | N/A |
| 8.9 | Production ratio or activity index | .89 |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | W19 | a. T04 | b. T06 | c. |
| 8.10.2 | W39 | a. T04 | b. T10 | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | YES | NO |
|---|---|---|---|
| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | | X |

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

# EPA FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

United States Environmental Protection Agency

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 92

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?

[ ] Yes (Answer question 2.2; Attach substantiation forms)

[X] No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy:

[ ] Sanitized [X] Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official:

JOE MACRI, MANAGER FACILITIES

Signature:

Date Signed: June 30, 1993

**SECTION 4. FACILITY IDENTIFICATION**

4.1

Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION

TRI Facility ID Number: 11801PRKNL220MI

Street Address: 220 Miller Place

City: Hicksville

County: Nassau

State: New York

Zip Code: 11801

Mailing Address (if different from street address):

City:

State:

Zip Code:

PUT LABEL HERE

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# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | | | b. ☒ Part of a facility | | |
| 4.3 | Technical Contact | Name: JOE MACRI | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.4 | Public Contact | Name: JOE MACRI | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.5 | SIC Code (4-digit) | a. 3399 | b. | c. | d. | e. | f. |
| 4.6 | Latitude and Longitude | Latitude: Degrees | Minutes | Seconds | Longitude: Degrees | Minutes | Seconds |
| | | 086 | 13 | 00 | 003 | 47 | 00 |
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a. 05-773-1663 | | | | | |
| | | b. | | | | | |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a. NYD981558570 | | | | | |
| | | b. | | | | | |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a. N/A | | | | | |
| | | b. | | | | | |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a. N/A | | | | | |
| | | b. | | | | | |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company | |
| | ☐ NA | PERKIN-ELMER CORPORATION |
| 5.2 | Parent Company's Dun & Bradstreet Number | |
| | ☐ NA (9 digits) | 00-118-4480 |

W/C



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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI FACILITY ID NUMBER |
|---|
| 11801 PRKNL 220MI |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440 - 48 - 4 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | COBALT |
| 1.3 | Generic Chemical Name (Important: Complete **only** if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.) |
| | N/A |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers,letters, spaces, and punctuation.) |
| | N/A |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | |
|---|---|---|---|
| 3.1 | **Manufacture the toxic chemical:** | a. ☐ Produce<br>b. ☐ Import | If produce or import:<br>c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | **Process the toxic chemical:** | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. ☒ As an article component<br>d. ☒ Repackaging |
| 3.3 | **Otherwise use the toxic chemical:** | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☐ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 | (Enter two-digit code from instruction package.) |

W/C



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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801FRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

### SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/ year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | [X] NA | | | |
| 5.2 | Stack or point air emissions | [ ] NA | 310 | C | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name: N/A | | | | |
| 5.3.2 | Stream or Water Body Name: N/A | | | | |
| 5.3.3 | Stream or Water Body Name: N/A | | | | |
| 5.4 | Underground injections on-site | [X] NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | [X] NA | | | |
| 5.5.2 | Land treatment/ application farming | [X] NA | | | |
| 5.5.3 | Surface impoundment | [X] NA | | | |
| 5.5.4 | Other disposal | [X] NA | | | |

[ ] Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = 1
C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

### SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 Discharges to receiving streams or water bodies (enter one name per box) | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

#### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| N/A | |

**6.1.B POTW Name and Location Information**

| 6.1.B.__ POTW Name | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

**If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Sections 5.3/6.1 page this is, here. [ ]**
**(example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 11
C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11801PRKNL220MI

Toxic Chemical, Category, or Generic Name: COBALT POWDER

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: LONI-ID SCRAP METAL

Street Address: 70 KINKEL STREET

City: WESTBURY | County: NASSAU

State: NY | Zip Code: 11590 | Is location under control of reporting facility or parent company? ☐ Yes ☒ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 240 | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: N/A

Street Address:

City: | County:

State: | Zip Code: | Is location under control of reporting facility or parent company? ☐ Yes ☐ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box ☐ and indicate which Part II, Section 6.2 page this is, here. ☐ (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 11
C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL 220MI |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

☒ **Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.**

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes ☐ No ☐ |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes ☐ No ☐ |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes ☐ No ☐ |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes ☐ No ☐ |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes ☐ No ☐ |

**If additional copies of page 7 are attached, indicate the total number of pages in this box ☐ and indicate which page 7 this is, here. ☐ (example: 1, 2, 3, etc.)**

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801 PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☒ **Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.**

Energy Recovery Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ]

## SECTION 7C. ON-SITE RECYCLING PROCESSES

☒ **Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.**

Recycling Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 [ ]

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801 PRLNL 220 MI |
| Chemical Category, or Generic Name |
| COBALT POWDER |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | *All quantity estimates can be reported using up to two significant figures.* | Column A 1991 (pounds/year) | Column B 1992 (pounds/year) | Column C 1993 (pounds/year) | Column D 1994 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released * | 0 | 0 | 0 | 0 |
| 8.2 | Quantity used for energy recovery on-site | 0 | 0 | 0 | 0 |
| 8.3 | Quantity used for energy recovery off-site | 0 | 0 | 0 | 0 |
| 8.4 | Quantity recycled on-site | 0 | 0 | 0 | 0 |
| 8.5 | Quantity recycled off-site | 270 | 240 | 250 | 250 |
| 8.6 | Quantity treated on-site | 0 | 0 | 0 | 0 |
| 8.7 | Quantity treated off-site | 0 | 0 | 0 | 0 |

| | | |
|---|---|---|
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | N/A |
| 8.9 | Production ratio or activity index | .95 |

**8.10** Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | W19 | a. T04 | b. | c. |
| 8.10.2 | W29 | a. T04 | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | YES | NO |
|---|---|---|---|
| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | ☐ | ☒ |

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

# Material Safety Data Sheet

**SULZER**

**Sulzer Metco**

## *Section 1. Chemical Product and Company Identification*

| | |
|---|---|
| **Product name** | Metco 445 |
| **Supplier** | **SULZER METCO (US) INC.**<br>**1101 Prospect Avenue**<br>**Westbury, NY 11590-0201**<br>**Phone: (516) 334-1300** |
| **Emergency Phone:** | **CHEMTREC 800-424-9300** |
| **Calls Outside the United States:** | **202-483-7616** |
| **Material Uses** | Metal industry: Used by Spraying |

## *Section 2. Composition, Information on Ingredients*

| Name | CAS # | % by Weight | Exposure Limits |
|---|---|---|---|
| Copper | 7440-50-8 | 89 | **ACGIH TLV (United States, 2002).**<br>TWA: 1 mg/m$^3$<br>TWA: 0.2 mg/m$^3$ Form: Fume<br>**NIOSH REL (United States, 2001).**<br>TWA: 1 mg/m$^3$ Period: 10 hour(s). Form: Dusts and Mists<br>**OSHA PEL 1989 (United States, 1989).**<br>TWA: 1 mg/m$^3$ Form: Dusts and Mists<br>TWA: 0.1 mg/m$^3$ Form: Fume |
| Aluminium | 7429-90-5 | 10 | **ACGIH TLV (United States, 2002).**<br>TWA: 2 mg/m$^3$<br>TWA: 10 mg/m$^3$ Form: Dust<br>TWA: 5 mg/m$^3$ Form: Fume<br>**NIOSH REL (United States, 2001).**<br>TWA: 5 mg/m$^3$ Period: 10 hour(s). Form: Respirable fraction<br>TWA: 10 mg/m$^3$ Period: 10 hour(s). Form: Total<br>TWA: 5 mg/m$^3$ Period: 10 hour(s).<br>**OSHA PEL 1989 (United States, 1989).**<br>TWA: 15 mg/m$^3$ Form: Dust<br>TWA: 5 mg/m$^3$ Form: Pyrophoric<br>TWA: 5 mg/m$^3$ Form: Respirable fraction<br>TWA: 5 mg/m$^3$ Form: Welding fume |
| Organic binder | | 1 | Not available. |

## *Section 3. Hazards Identification*

**Physical State and Appearance** Powder.

**Emergency Overview**

WARNING!

VERY TOXIC TO AQUATIC ORGANISMS.

CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: KIDNEYS, LIVER, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.

Avoid contact of spilled material and runoff with soil and surface waterways.

**Routes of Entry** Not available.

**Potential Acute Health Effects**

***Eyes*** Irritating to eyes. Exposure may result in impaired vision, tears, redness and pain.

***Skin*** Prolonged or repeated exposure may be irritating (redness, pain).

**RY 1999 EPCRA/TRI Training for All Industries**
**New York, New York**
**April 13 - 14, 2000**

**DAY 1**

**Morning**

8:30 - 9:00 **Registration**

9:00 - 9:10 **Introduction - Nora Lopez, US EPA Region II**
Welcoming remarks
Overview of Regional technical assistance

9:10 - 10:00 **A. Toxic Release Inventory Reporting Requirements (EPCRA Section 313) - Robert Costa, SAIC**

This presentation provides an overview of the TRI reporting criteria, focusing on threshold determinations and key terms (e.g., facility, manufacture, process, otherwise use). The presentation also provides a general overview of the chemical list, including chemical categories and qualifiers.

10:00 - 11:00 **B. EPCRA Section 313 Exemptions - David Cohen, SAIC**

This presentation addresses reporting exemptions (e.g., *de minimis*, article, structural component, routine janitorial/facility maintenance, personal use, laboratory activity, motor vehicle maintenance, process water, coal extraction activity, metal mining overburden.

11:00 - 12:00 **C. Determining Thresholds - Robert Costa, SAIC**

This session discusses methods for identifying EPCRA Section 313 chemicals, compiling usage information, and organizing the information to facilitate making threshold determinations.

- Exercise #1 - Identifying EPCRA Section 313 chemicals using MSDSs

12:00 - 1:00 **LUNCH**

## Afternoon

1:00 - 2:00 **D. Exercise #2: Threshold Determinations - David Cohen, SAIC**

A comprehensive workshop, based on a mock facility, reinforces the morning's discussion of threshold determinations and reporting exemptions. Course participants will identify the EPCRA Section 313 chemicals used at the facility, complete threshold determination worksheets and perform threshold determinations.

2:00 - 3:00 **E. EPCRA Section 313 Release and Other Waste Management Reporting - Robert Costa, SAIC**

This presentation focuses on a coordinated approach for collecting the information necessary for accurate release calculations and determining off-site transfer activities.

3:00 - 4:00 **F. Form R Overview - David Cohen, SAIC**

This presentation reviews the data elements in Part I and Part II, sections 1 - 7 of the Form R. The instructor will focus on the commonly made errors associated with completing the Form R report.

4:00 - 5:00 **G. Pollution Prevention Act (PPA) Reporting - Robert Costa, SAIC**

This presentation provides an overview of the PPA, explains how that law affects EPCRA Section 313 reporting, and reviews the data elements in Part II, section 8 of Form R.

- Exercise #3: Identifying PPA waste streams

## DAY 2

### Morning

8:30 - 9:00 **H. TRI Update - David Cohen, SAIC**

This presentation focuses on TRI form and procedural changes for experienced TRI filers. Descriptions include changes to the Form R/Form A, the TRI Forms and Instructions document, the Automated Form R Reporting System (ATRS), and submission deadlines.

9:00 - 9:45 **I. EPCRA Section 313 Chemical List - Robert Costa, SAIC**

This presentation provides a review of the EPCRA Section 313 chemical list and interpretive guidance issues, such as reporting on acid aerosols.

- Chemical list update
- Reporting guidance: Ammonia, Nitrate Compounds, Acid Aerosols (HCl, H2SO4)
- Exercise #4 - Calculating releases of ammonia and nitrate compounds

9:45 - 10:30 **J. Metals and Metal Compounds Reporting - David Cohen, SAIC**

This presentation focuses on reportable metals, and how they are commonly counted for threshold and release/waste management purposes. The session will focus on the use of metal for products distributed into commerce (processing), and uses of metal on-site, such as to build new tanks and equipment (otherwise use). This presentation also describes how the article exemption applies to metal containing materials and wastes.

10:30 - 11:30 **K. Acid Aerosol and Fuel Combustion Reporting - Robert Costa, SAIC**

This session focuses on threshold and release determination calculations for acid aerosols and fuel combustion. In particular, this session will focus on coincidental manufacture of chemicals in combustion processes, including metal compounds and acid aerosols. Aerosol discussions will emphasize situations where aerosols could be produced from processing solutions.

11:30 - 12:30 **L. Maintenance Chemicals and Otherwise Use Activities - David Cohen, SAIC**

This presentation provides a review of chemicals used to maintain facility operations. Often chemicals are overlooked that are not used directly in facility operations, such as chemicals used to clean equipment. This presentation is designed to provide attendees with ideas and tools for accounting for these chemicals, and how exemptions may apply or not depending on their use.

12:30 - 1:30 **LUNCH**

## Afternoon

1:30 - 2:00 **M. Form R/Form A Submission - Getting It Right! - Robert Costa, SAIC**

This session will review common errors in TRI reporting. As appropriate, EPA Regional and/or State representatives will discuss their TRI programs and technical assistance resources, including enforcement and compliance assurance activities.

- Exercise #5 - TRI Knowledge Quiz

2:00 - 2:30 **N. PBT: The PBT Rule - David Cohen, SAIC**

This session reviews the new persistent, bioaccumulative, and toxic chemicals (PBT) rulemaking. This presentation will also overview which exemptions will not apply for PBTs. This presentation will also introduce the chemicals subject to the new persistent, bioaccumulative, and toxic (PBT) thresholds.

2:30 - 3:30 **O. PBT Reporting - Robert Costa, SAIC**

This session discuss in what types of processes and mixtures PBT chemicals will be found, how to estimate the quantities of PBT chemicals, and where to go for additional information.

3:30 - 4:15 **P. Exercise #6: PBT Quiz - David Cohen, SAIC**

The quiz will help course participants to better understand the new reporting requirements for persistent, bioaccumulative, and toxic (PBT) chemicals, including the new chemical listings and thresholds.

4:15 - 5:00 **Q. Information Resources and Course Evaluation - Robert Costa, SAIC**

This concluding session will address any outstanding issues that developed during the training seminar. Sources for additional guidance on TRI reporting will also be identified.

- Remaining issues; questions and answers
- EPA guidance documents
- Hotlines, bulletin boards, industry groups, trade associations

**RY 1999 EPCRA/TRI Training for All Industries**
**New York, New York**
**April 13 - 14, 2000**

**DAY 1**

**Morning**

8:30 - 9:00 **Registration**

9:00 - 9:10 **Introduction - Nora Lopez, US EPA Region II**
Welcoming remarks
Overview of Regional technical assistance

9:10 - 10:00 **A. Toxic Release Inventory Reporting Requirements (EPCRA Section 313) - Robert Costa, SAIC**

This presentation provides an overview of the TRI reporting criteria, focusing on threshold determinations and key terms (e.g., facility, manufacture, process, otherwise use). The presentation also provides a general overview of the chemical list, including chemical categories and qualifiers.

10:00 - 11:00 **B. EPCRA Section 313 Exemptions - David Cohen, SAIC**

This presentation addresses reporting exemptions (e.g., *de minimis*, article, structural component, routine janitorial/facility maintenance, personal use, laboratory activity, motor vehicle maintenance, process water, coal extraction activity, metal mining overburden.

11:00 - 12:00 **C. Determining Thresholds - Robert Costa, SAIC**

This session discusses methods for identifying EPCRA Section 313 chemicals, compiling usage information, and organizing the information to facilitate making threshold determinations.

- Exercise #1 - Identifying EPCRA Section 313 chemicals using MSDSs

12:00 - 1:00 **LUNCH**

## Afternoon

1:00 - 2:00 **D. Exercise #2: Threshold Determinations - David Cohen, SAIC**

A comprehensive workshop, based on a mock facility, reinforces the morning's discussion of threshold determinations and reporting exemptions. Course participants will identify the EPCRA Section 313 chemicals used at the facility, complete threshold determination worksheets and perform threshold determinations.

2:00 - 3:00 **E. EPCRA Section 313 Release and Other Waste Management Reporting - Robert Costa, SAIC**

This presentation focuses on a coordinated approach for collecting the information necessary for accurate release calculations and determining off-site transfer activities.

3:00 - 4:00 **F. Form R Overview - David Cohen, SAIC**

This presentation reviews the data elements in Part I and Part II, sections 1 - 7 of the Form R. The instructor will focus on the commonly made errors associated with completing the Form R report.

4:00 - 5:00 **G. Pollution Prevention Act (PPA) Reporting - Robert Costa, SAIC**

This presentation provides an overview of the PPA, explains how that law affects EPCRA Section 313 reporting, and reviews the data elements in Part II, section 8 of Form R.

- Exercise #3: Identifying PPA waste streams

## DAY 2

### Morning

8:30 - 9:00 **H. TRI Update - David Cohen, SAIC**

This presentation focuses on TRI form and procedural changes for experienced TRI filers. Descriptions include changes to the Form R/Form A, the TRI Forms and Instructions document, the Automated Form R Reporting System (ATRS), and submission deadlines.

9:00 - 9:45 **I. EPCRA Section 313 Chemical List - Robert Costa, SAIC**

This presentation provides a review of the EPCRA Section 313 chemical list and interpretive guidance issues, such as reporting on acid aerosols.

- Chemical list update
- Reporting guidance: Ammonia, Nitrate Compounds, Acid Aerosols (HCl, H2SO4)
- Exercise #4 - Calculating releases of ammonia and nitrate compounds

9:45 - 10:30 **J. Metals and Metal Compounds Reporting - David Cohen, SAIC**

This presentation focuses on reportable metals, and how they are commonly counted for threshold and release/waste management purposes. The session will focus on the use of metal for products distributed into commerce (processing), and uses of metal on-site, such as to build new tanks and equipment (otherwise use). This presentation also describes how the article exemption applies to metal containing materials and wastes.

10:30 - 11:30 **K. Acid Aerosol and Fuel Combustion Reporting - Robert Costa, SAIC**

This session focuses on threshold and release determination calculations for acid aerosols and fuel combustion. In particular, this session will focus on coincidental manufacture of chemicals in combustion processes, including metal compounds and acid aerosols. Aerosol discussions will emphasize situations where aerosols could be produced from processing solutions.

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- EPA guidance documents
- Hotlines, bulletin boards, industry groups, trade associations

**New York State Department of Environmental Conservation**

**Pollution Prevention Unit**

**State TRI Submission Guidance (STSG)**

April 10, 2000

1. The SARA 313 -TRI FORM R and FORM A's (both hard-copy and magnetic media) only should be submitted to the address below:

   Attention: Sitansu Ghosh
   New York State Department of Environmental Conservation
   Pollution Prevention Unit
   50 Wolf Road, Room 298
   Albany, NY 12233-8010
   Website : www.dec.state.ny.us
   Telephone: (518) 457-2553, FAX : (518) 457-2570

2. MSDS Sheet - Section 311 and Hazardous Substance Tier I and II Inventory Reports and Section 312 please contact :

   System Management Section
   NYSDEC, Room 360
   50 Wolf Road
   Albany, NY 12233-3750
   Telephone:(518) 457-9412

   Please direct general question on SARA to:

   Lee Battes
   State Emergency Management Office
   1220 Washington Avenue, Suit 101
   Albany, NY 12226
   Telephone: (518) 457-9957

3. Submission Schedule and Forms

   The State will follow the USEPA submission schedule including any extension of last date of submission.

   The New York State will accept the USEPA TRI forms on both hard-copy and magnetic media. The facilities may use copies of paper forms and magnetic diskette prepared for EPA submission for state submission.

4. Magnetic Medium Submission Guidance

(a) Prepare WINDOWS 95 compatible HD ( high density ) diskette. To check compatibility, insert the prepared diskette in the 3.5" drive and try to display directory in the WINDOWS Explorer. We have difficulty reading old DD (double density) diskettes. Re-submission and data loss may occur if incompatible diskettes are submitted.

(b) Check that there are 18 files on the diskette. To check number of files insert the diskette in the 3.5" drive and display directory in the WINDOWS Explorer.

(c) Use protective diskette mailers for shipping so that the diskettes do not get damaged during shipping and handling.

(d) Include a cover letter with diskette submission. For multiple facility data on a single diskette, submit a separate cover letter for each facility. Please identify each cover letter with the Facility name, address, and TRI id.

(e) The number of Facilities and the number of reports for each facility on a single diskette submission should be clearly indicated in the accompanying cover letter.

(f) Include TRI id and facility address on the diskette label in addition to the items suggested in the instruction for preparation of diskette label.

(g) Paper copies of the forms are not required with magnetic media submission.

5. Paper Copy Submission Guidance

(a) Include a cover letter indicating: the number of facilities (if forms for more than one facility are submitted in one packet); the TRI ID; and number of forms for each facility. This will help us to record your forms completely and correctly.

(b) The pages should be collated and the pages of each form should be stapled together. This will prevent the mixing of pages and resulting errors in recording forms.

# RY1999 EPCRA/TRI Training Workshops

Dear Michael Lydon:

This letter confirms that you are registered for the US EPA EPCRA/TRI Training Workshop for reporting year (RY) 1999, to be held in **New York City, NY** on **April 13 - April 14, 2000**. Specifically, the workshop will be held at the **Federal Building.** Course registration will begin at 8:30 AM on the first day and the workshop will begin promptly at 9:00 AM each day and will conclude at 5:00 PM each day.

The workshop will provide participants with a detailed explanation of the process to comply with the reporting requirements under section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and section 6607 of the Pollution Prevention Act (PPA). Specifically, the seminars are designed to address the current reporting requirements and interpretive guidance as it pertains to all covered facilities subject to the TRI reporting program for reporting year (RY) 1999. The workshop will consist of lectures and interactive discussions, with exercises and examples to illustrate course concepts.

What To Bring:

- Pen or Pencil
- Calculator

Note - Please be prepared to make your own arrangements for lunch as food and refreshments will not be provided throughout the course of the workshop

Attached to this letter is further information on the following:

- Workshop location and directions, and map information
- Hotel information (if different from workshop location)
- Parking, security, and miscellaneous information

For those participants who are not based locally and will need overnight accommodations, EPA has blocked a limited number of rooms at **the Holiday Inn Downtown, 138 Lafayette St., New York, NY 10013,** to be made available to workshop participants at a discounted rate. Be sure to ask for the "EPCRA/TRI Training" rate. It is your responsibility to make hotel arrangements - the act of registering for the training session does not reserve a room. You must contact the hotel directly to make reservations (see enclosed information). The Agency bears no responsibility for your decision to purchase non-refundable transportation tickets or accommodation reservations.

Thank you for your interest in the RY1999 EPCRA/TRI Training Workshops, we are confident it will be a valuable experience. Because interest for these workshops has

been high, please contact us ASAP via fax (703-318-4644), email (training@epcra-tri.com), or phone (703-318-4504) if for any reason you are unable to attend, so others may have an opportunity. We look forward to seeing you in **New York City, NY.**

**RY1999 US EPA EPCRA/TRI Training Workshop**

**New York City, NY April 13 - April 14, 2000**

Course Location:

Federal Building
290 Broadway
27th Floor, Room A
New York, NY
212-637-3000
Registration – 8:30 AM (first day)
Course Times – 9:00 AM - 5:00 PM

Parking/Security

- pay-parking nearby, Security: extremely tight, anything considered a weapon (i.e. penknife) will be confiscated and not returned, all attendees must sign in and pass through magnetometers.

Hotel

Holiday Inn Downtown
138 Lafayette Street
New York, NY 10013
(212) 966-8898 – phone
(212) 941-5832 – fax
Room rate is $185.00 ($198.00 is the per diem rate)

Directions:

From JFK Airport to Holiday Inn Downtown

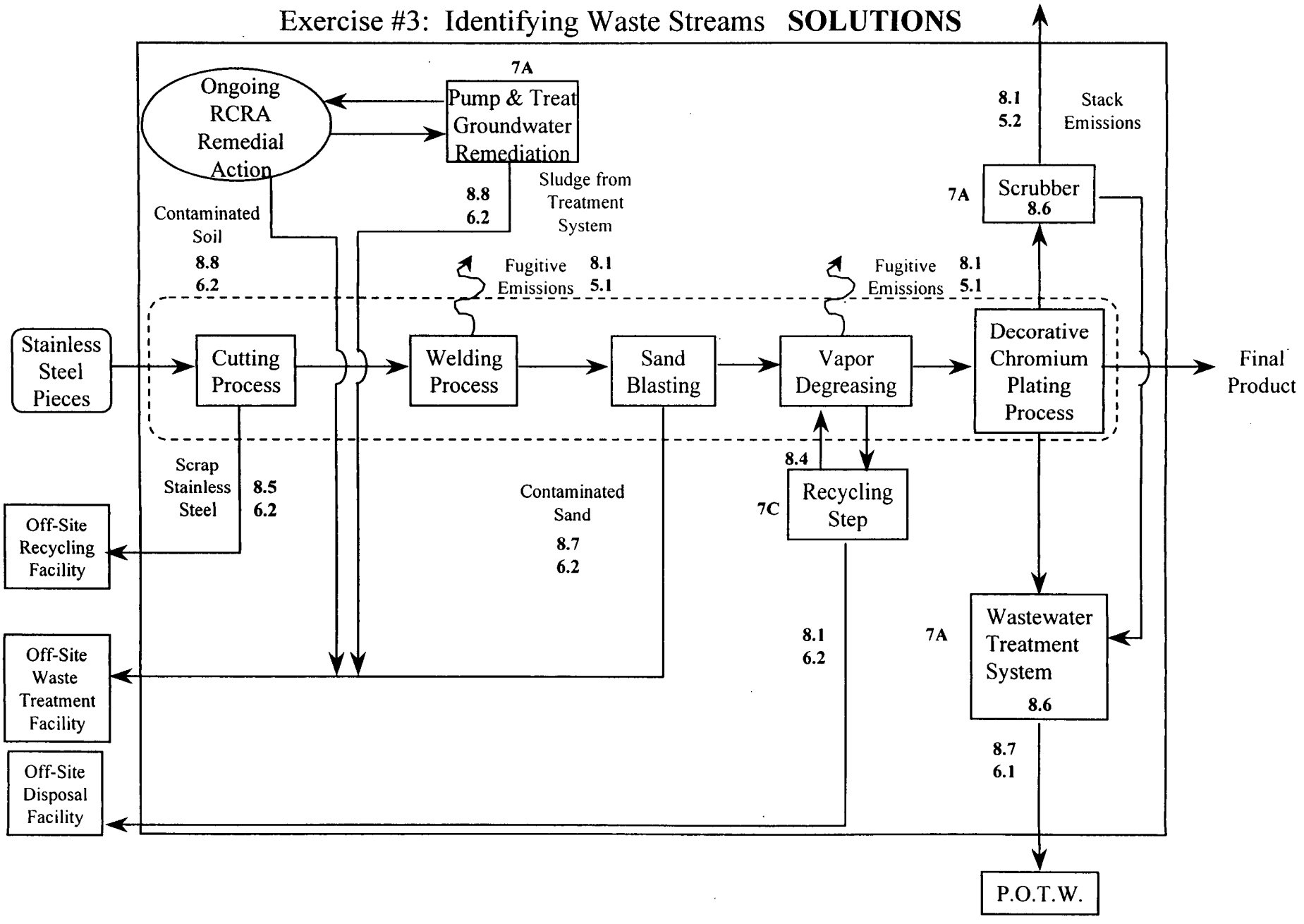
- Start out going North on Terminal 4W towards Terminals 4W AND 4E Arrivals.
- Turn right onto Arrivals.
- Arrivals becomes unnamed road.
- Turn slight left onto Terminal 4E Departures
- Stay straight to go onto Van Wyck Expressway.
- Take the I-495 West exit, exit number 12B.

- Start out going Northeast on towards Terminal A, B, C, and D by turning left
- Stay straight to go onto Terminal A, B, C, and D
- Stay straight to go onto Airport Exit
- Take the Parkway West ramp towards Manhattan
- Merge onto Grand Central Pkwy West
- Take the Brooklyn/Queens Expressway exit, exit # 4 towards Verrazano Narrows Br./ (I-278 West)
- Merge onto Brooklyn Queens Expressway East
- Take the I-278 West exit
- Merge onto Brooklyn Queens Expressway
- Take the Williamsburg Bridge exit on the left
- Merge onto the Williamsburg Bridge
- Take a slight right onto Delancey St.
- Turn slight right onto Kenmare St.
- Turn left onto Lafayette St.
- Turn right onto Canal St.
- Turn left onto Broadway
- The Federal Building is at 290 Broadway

From JFK Airport to Federal Building

- Start out going North on Terminal 4W towards 4W and 4E Arrivals
- Turn right onto Arrivals
- Arrivals becomes unnamed road
- Turn slight left onto Terminal 4E Departures
- Follow 4E Departures to Van Wyck Expressway
- Stay straight on Van Wyck Expressway
- Take the I-495 West exit, exit number 12B
- Merge onto Long Island Expressway
- Long Island Expressway becomes I-495 W
- Take the 35 St. exit towards 34 St./Downtown
- Turn left onto E 34th St.
- Turn right onto 2nd Ave.
- Turn right onto E Houston St.
- Turn left onto Broadway
- The federal building is at 290 Broadway

# Exercise #3: Identifying Waste Streams **SOLUTIONS**



## EXERCISE 4: SOLUTION
### Calculating Releases of Ammonia and Nitrate Compounds

During the calendar year, a facility uses 200,000 pounds of nitric acid solution containing 50 percent (by weight) nitric acid ($HNO_3$) in an etching operation. All of the nitric acid is eventually transferred to an on-site treatment facility as part of an aqueous waste stream. The nitric acid is neutralized with pure (gaseous) anhydrous ammonia ($NH_3$). The facility uses an excess of ammonia to assure complete neutralization to pH 8. During the calendar year, the facility used 30,000 pounds of ammonia. As a result of the treatment process, a nitrate compound, ammonium nitrate ($NH_4NO_3$), is formed. The ammonium nitrate and any remaining ammonia are then released to a water body.

Using the additional information below, complete questions a through d.

**Assumptions**

For simplicity, assume air emissions are zero.

| **Chemical Name** | **Molecular Weights** |
|---|---|
| Ammonium nitrate ($NH_4NO_3$) | = 80.04 lb/lbmol |
| Ammonia ($NH_3$) | = 17.03 lb/lbmol |
| Nitric acid ($HNO_3$) | = 63.01 lb/lbmol |
| Nitrate ion ($NO_3^-$) | = 62.01 lb/lbmol |

**Chemistry Fundamentals**

Nitric acid ($HNO_3$) and anhydrous ammonia ($NH_3$) are monovalent and react in a 1:1 ratio. One mole of NH3 is used to neutralize each mole of $HNO_3$ treated. When neutralized with anhydrous ammonia, nitric acid ($HNO_3$) produces ammonium nitrate ($NH_4NO_3$) in a 1:1 ratio. These substances are monovalent, so for each mole of $HNO_3$ neutralized, one mole of $NH_4NO_3$ is produced. In other words:

$$HNO_3 + NH_3 \rightleftharpoons NH_4NO_3$$

Therefore, 63.01 pounds of nitric acid reacts with 17.03 pounds of ammonia to produce 80.04 pounds of ammonium nitrate (which contains 62.01 pounds of nitrate ions).

**a) Based on the above scenario and information available, determine which toxic chemicals would be subject to EPCRA section 313 threshold and release determinations.**

In the process described, three toxic chemicals or chemical categories are mentioned: nitric acid, ammonia, and ammonium nitrate, a member of the nitrate compounds (water dissociable; reportable only when in aqueous solution) category.

**b) Calculate the quantity of nitric acid applied towards threshold determinations and release calculations.**

As described in the scenario, 200,000 pounds of 50 percent (by weight) solution of nitric acid are used in an etching process at the facility. Because the nitric acid is not manufactured or incorporated into a product, the entire amount would be applied to the "otherwise use" threshold of 10,000 pounds.

200,000 pounds x 50 wt% nitric acid = 100,000 pounds of nitric acid

The quantity used exceeds the "otherwise use" threshold, so the facility would report on the releases and other waste management of nitric acid.

Because the nitric acid is neutralized to a pH that exceeds 6, we can assume 100% neutralization and the quantity released to a water body is zero. Note that if any pH excursions below 6 occurred, these would need to be accounted for in the release calculations.

**c) Calculate the quantity of ammonia applied towards threshold determinations and release calculations.**

According to the ammonia listing, threshold determinations for ammonia are based on 10 percent of the total ammonia present in an aqueous solution if the ammonia comes from a solution of anhydrous ammonia in water or from a solution of water dissociable ammonium salts. If used or released in the pure (gaseous) anhydrous form, the entire amount of ammonia used or released in this manner is applied to the applicable threshold determinations and release calculations.

Because the ammonia is used to neutralize the nitric acid, the otherwise use threshold of 10,000 pounds applies. The pounds of anhydrous ammonia used to neutralize the nitric acid is stated as 30,000 pounds of pure (gaseous) anhydrous ammonia, not the quantity of ammonia in solution formed, because the ammonia was originally used by the facility in the anhydrous form. Therefore, the quantity of ammonia applied to the ammonia listing threshold is the total quantity of anhydrous ammonia used in the acid neutralization, or 30,000 pounds.

Assuming that none of the ammonia is released as air emissions during the treatment process and that all of the ammonia is released to a water body as part of the aqueous waste stream (as $NH_3$, ammonium nitrate, or another ammonium compound), the total quantity of aqueous ammonia released is equal to the quantity of anhydrous ammonia otherwise used, or 30,000 pounds. Because the release of the ammonia is occurring as an aqueous solution, the quantity of aqueous ammonia *reported* as released is only 10 percent of the total quantity of *aqueous ammonia* actually released, or 3,000 pounds (Part II, Section 5.3 of Form R).

**d) Calculate the quantity of ammonium nitrate applied towards threshold determinations and release calculations.**

According to the listing for the water dissociable nitrate compounds category, facilities must include the entire weight of the nitrate compounds in the category to calculate threshold determinations but use only the weight of the nitrate ion portion when calculating releases. For this reason, we must first calculate the total quantity of ammonium nitrate formed in the treatment process and then calculate the quantity of nitrate ion transferred off-site as part of the waste stream.

Ammonium nitrate is a monovalent nitrate compound as stated in the Chemistry Fundamentals. Because ammonia is used in excess, the quantity of nitric acid neutralized determines the quantity of ammonium nitrate formed. Therefore, the quantity of ammonium nitrate is equal to the quantity of the nitric acid neutralized on a molar basis (i.e., after correcting for molecular weight differences):

Quantity of ammonium nitrate manufactured
= quantity of nitric acid x ratio of pounds of ammonium nitrate produced per pounds of nitric acid consumed
= 100,000 pounds nitric acid x (80.04 pounds ammonium nitrate produced/ 63.01 pounds nitric acid consumed)
= 127,027 pounds ammonium nitrate produced

In this example, 100 percent of the ammonium nitrate compound manufactured should be applied to the threshold for the nitrate compounds category because all of it is water dissociable and all is in aqueous solution. Because the quantity of ammonium nitrate manufactured exceeds the 25,000 pound "manufacturing" threshold, we must calculate the releases associated. Because only the nitrate ion portion of the compound is included in release calculations and all of the ammonium nitrate manufactured is released to a water body, the quantity of the nitrate ion released to a water body is calculated as follows:

Quantity of nitrate ion released to a water body (Part II, Section 5.3 of Form R)
= quantity of ammonium nitrate released x MW (nitrate ion) / MW( ammonium nitrate)
= 127,027 pounds ammonium nitrate x (62.01 pounds nitrate ion/80.04 pounds ammonium nitrate)
= 98,413 pounds nitrate ion (rounded to two significant figures or 98,000 pounds)

100,000 lbs COPPER tubing 90% COPPER 9.2% ZINC . 90,000 lbs COPPER
920 lbs ZINC.

HCFC 22 98% USED 26,000 lbs of HCFC 22 25,740

110,000 lbs PAINT with 10% MEK.

300,000 POUNDS RESIN 4% barium hydroxide 1.5 ZINC.
1% AMMONIA generated As by-product.

10,000 lbs 12% MEK 1,200 lbs.

20,000 lbs 5% MEK 1,000 lbs exempt.

Remediation - Exempt.

# EXERCISE 1: IDENTIFYING EPCRA SECTION 313 CHEMICALS
# SOLUTIONS

| MSDS Name | Section 313 Chemical(s) Name | Concentration | Notes |
|---|---|---|---|
| Crude Zinc Oxide | Zinc Compounds<br>Lead or lead compounds<br>Aluminum (fume or dust) | 95%<br>.3%<br>2.15% | Assumed all zinc oxide except other known constituents.<br>Aluminum (Al) is reportable only as a fume or dust and the MSDS specifies the material as an odorless coarse powder.<br>Lead - uncertain whether it is elemental lead or a lead compound.<br>All other reportable chemicals are below de minimis (Cl, Cd, Cu). Iron (Fe) is not a Section 313 chemical. |
| Roofing Granules | Chromium Compounds<br>Zinc Compounds | 0.9%<br>0.9% | Both are below de minimis |
| Instapak Compound "A" | Diisocyanates category | 100% | See page 1 of MSDS and page 6 - section 15 of MSDS |
| Alkaline Corrosive Liquid | None | | See page 2 of MSDS in Section 8 - has statement about Section 313 chemicals |
| AL-5(R) De-Icing Fluid | Ethylene Glycol | 85% | See page 1 of MSDS<br>Isopropyl Alcohol (not included - only counted if manufactured by the strong-acid process) |
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United States
Environmental Protection
Agency

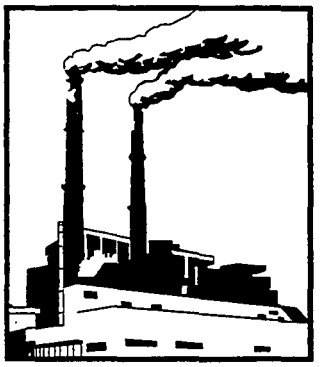
Office of Information
Analysis and Access
Washington, DC 20460

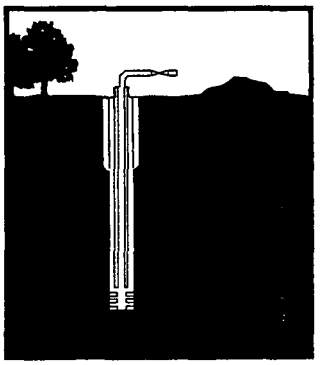
February 2000
EPA 745-B-00-001

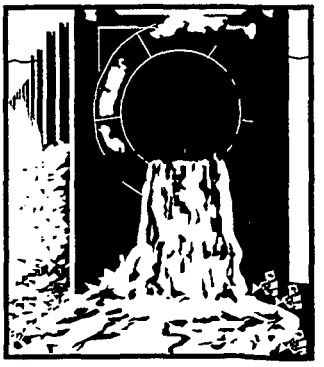
EPA

# Toxic Chemical Release Inventory Reporting Forms and Instructions

*Revised 1999 Version*







## Section 313

**of the Emergency Planning and Community Right-to-Know Act**

(Title III of the Superfund Amendments and Reauthorization Act of 1986)

WHERE TO SEND REPORTS
REGULAR, CERTIFIED MAIL, OVERNIGHT
OR HAND DELIVERED
*(SECTION A.7 (PAGES 4–5))*

FOR ATRS SOFTWARE SUPPORT CALL:
ATRS Technical Support Hotline
(703) 816-4434
OR
Email: atrs.tech.support@epcra.org
Hours of Operation:
8:00 AM to 4:30 PM E.T.

For questions regarding Form R or Form A call:
EMERGENCY PLANNING AND
COMMUNITY RIGHT-TO-KNOW HOTLINE
1-(800) 424-9346 OR (703) 412-9877
HOURS OF OPERATION:
9:00 AM TO 6:00 PM E.T.
*(SECTION A.8 (PAGE 5))*

HOW TO OBTAIN FORMS
AND OTHER
INFORMATION
*(SECTION A.8 (PAGE 5))*

Please send either: (1) one copy of each Form R or Form A, or (2) an ATRS99 diskette to EPA at the appropriate address listed in Section A.7 *(PAGE 4)* and an electronic or hard copy of each to your state. Be aware that not all states accept electronic versions of the Forms. Do not send a copy to your EPA Regional Office

STATE DESIGNATED
SECTION 313 CONTACTS
*(APPENDIX F)*

SECTION 313 EPA REGIONAL
CONTACTS
*(APPENDIX G)*

# Important Information for Reporting Year 1999

The following information updates or corrects the Forms and Instructions for Reporting Year 1998. No other changes or modifications have been made to the Forms and Instructions other than these here.

- ☐ All references to reporting year 1999 and all other date related references have been changed to reflect the current reporting year. (i.e., reporting year 1998 has been changed to reporting year 1999; prior year 1997 was changed to prior year 1998, etc.) This change was made for both the Form R and the instructions.

- ☐ Starting with the reporting year 1998, voluntary revisions must be submitted by July 31st of the same year as the reporting deadline for the revised data to be included in the next TRI data release. In previous years this deadline was October 15th.

- ☐ The back side of the pages of the Form R include a box stating, "This page intentionally left blank". Please do not copy double-sided.

- ☐ Appendix A contains reporting instructions specific to Federal facilities that are required to report under Executive Order 12856. Further guidance for Federal facilities may be obtained from the EPCRA Hotline at 1 (800) 424-9346, or (703) 412-9877.

- ☐ Appendix C, "Common Errors in Completing Form R Reports and Making Data Available" has been updated.

- ☐ The State and Regional contact lists have been updated (Appendices F and G).

- ☐ The Alternate Threshold provides eligible facilities with the option of submitting a simplified Form A instead of the full Form R report.

- ☐ The EPCRA Section 313 Chemical List (Table II) has not changed since last year.

- ☐ A list of Section 313 industry-specific guidance documents and chemical-specific guidance documents and information on ordering these documents free of charge is provided on page vii.

- ☐ Included in this reporting package is a compact disk (CD) that contains several industry-specific regulatory guidance documents, including documents specific to the newly added industry groups, the EPCRA Section 313 Questions and Answers book and all versions of ATRS99 (Windows 95, 98 and NT; Windows 3.1) and the ATRS Users Guide.

- ☐ These documents are also available on the Internet at http://www.epa.gov/tri.

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# Automated TRI Reporting Software

## About ATRS

ATRS99 is EPA's Automated TRI Reporting Software for reporting TRI data for 1999 and any preceding year. Listed below are some features which are new this year:

## ATRS Features

### • ATRS99 on CD

Distributing our software on compact disk (CD) allows us to provide you with several of our industry-specific regulatory guidance documents and the EPCRA Section 313 Questions and Answers book in addition to all versions of ATRS99: Windows 32-bit (Windows 95, 98, and NT compatible); Windows 16-bit (Windows 3.1 compatible).

### • "Recycle" Your Old Data

The "reload data function" allows you to reload existing TRI data from any of the following sources which you may have saved from previous TRI reporting: (1) any AFR/ATRS submission diskette (for reporting years 1991 to 1998), (2) AFR97 and ATRS98 for DOS database, or (3) AFR97 and ATRS98 for Windows database. Once reloaded these data can easily be edited to update it as needed for 1999 reporting.

### • DOS Version Discontinued

We have discontinued the DOS version of the software due to low demand (approximately 100 filers last year used the DOS version of ATRS).

### • Create Diskette for State Submission

The create diskette screen now presents an option to create a diskette and cover letter for submission to a state agency.

### • Diskette Creation Message

The state disk, copy all, and copy selected diskette creation routines now feature a message upon successful completion of the diskette creation routine.

### • Additional Validation Check for Waste Management Codes

For most metals and metal compound categories, only waste management codes for disposal and certain recycling activities are accepted. This is because metals and metal category compounds are neither treated nor destroyed, and therefore, these chemicals and chemical compounds can only be managed through some form of disposal or recycling/recovery process. The only exceptions to this are for those cases where the listed metal contains a qualifier (e.g., aluminum – fume or dust) where the listed form of the metal may be transformed to a non-listed form. Use of waste management codes other than these will produce an invalid code in section 6.2.X.c. The user will be notified of this error upon validation under the error code #339.

### • Distinction Among Standard Industrial Classification (SIC) Codes

EPA has provided guidance in the "Forms and Instructions" package each year directing facilities to enter their "Primary" SIC code in the first place holder in Part 1, "Facility Information" section. This year, both Form R and Form A have been slightly modified to include the title of "Primary SIC code" in the position of the first SIC code. Please enter the "primary" SIC code for the facility in this field.

## Automated TRI Reporting Software

- **Disabling of the Warning Message for over 50,000 pounds**

ATRS has been modified so that the current warning message that appears at the first entry value over 50,000 pounds may be disabled by the submitter of the form.

# Chemical and Industry Guidance Documents

To receive a copy of any of the section 313 documents listed below, check the box(es) next to the desired document(s). There is no charge for any of these documents. Be sure to type or clearly print your full mailing address in the space provided on the third page of this form (page viii). Send this request form or call toll-free 1-800-490-9198.

**U.S. EPA/NCEPI**
**P.O. Box 42419**
**Cincinnati, OH 45242-2419**
**(800) 490-9198**
**Fax: (513) 489-8695**
**Internet:**
**http://www.epa.gov/ncepihom/index.html**

❑ **40 CFR 372, Toxic Chemical Release Reporting; Community Right-to-Know; Final Rule**

A reprint of the final section 313 rule as it appeared in the *Federal Register* (FR) February 16, 1988 (53 FR 4500) (OTSFR 021688).

❑ **Toxics Chemical Release Inventory Reporting Forms and Instructions for 1999**
February 2000 (EPA 740-K-00-001)

❑ **Consolidated List of Chemicals Subject to Reporting Under the Act**
(Title III List of Lists) (EPA 550-B-98-017)

A consolidated list of specific chemicals covered by the Emergency Planning and Community Right-to-Know Act. The list contains the chemical name, CAS Registry Number, and reporting requirement(s) to which the chemical is subject.

❑ **The Emergency Planning and Community Right-to-Know Act: Section 313 Release Reporting Requirements**
June 1999 (EPA 745/K-99-002)

The brochure alerts businesses to their reporting obligations under section 313 and assists in determining whether their facility is required to report. The brochure contains the EPA regional contacts, the list of section 313 toxic chemicals and a description of the Standard Industrial Classification (SIC) codes subject to section 313.

❑ Supplier Notification Requirements,
(EPA 560-4-91-006)

This pamphlet assists chemical suppliers who may be subject to the supplier notification requirements, gives examples of situations which require notification, describes the trade secret provision, and contains a sample notification.

❑ **Trade Secrets Rule and Form**
(53 FR 28772)

A reprint of the final rule that appeared in the *Federal Register* of July 29, 1988. This rule implements the trade secrets provision of the Emergency Planning and Community Right-to-Know Act (section 322) and includes a copy of the trade secret substantiation form.

❑ **Common Synonyms for Chemicals Listed Under Section 313 of the Emergency Planning and Community Right-to-Know Act**
(EPA 745-R-95-008)

This glossary contains chemical names and their synonyms for substances covered by the reporting requirements of EPCRA section 313. The glossary was developed to aid in determining whether a facility manufactures, processes, or otherwise uses a chemical subject to section 313 reporting.

❑ **Executive Order 12856 — Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements: Questions and Answers**
February 1999 (EPA 745-R-99-001)

This document assists federal facilities in complying with Executive Order 12856. This information has been compiled by EPA from questions received from Federal facilities. This document is intended for the exclusive use of Federal facilities in complying with sections 302, 303, 304, 311, 312, and 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 and the Pollution Prevention Act of 1990, as directed by the Executive Order.

❑ **Section 313 of the Emergency Planning and Community Right-to-Know Act; Questions and Answers**
December 1998 (EPA 745-B-98-004)

The revised *1998 EPCRA Section 313 Questions and Answers* document assists regulated facilities in complying with the reporting requirements of EPCRA section 313. This updated document presents interpretive guidance in the form of answers to many commonly asked questions on compliance with EPCRA section 313. In addition, this document includes comprehensive written directives to assist covered facilities in understanding some of the more complicated regulatory issues. This updated guidance document is intended to supplement the instructions for completing the Form R and the Alternate Threshold Certification Statement (Form A).

- ❑ **Toxics Release Inventory: Reporting Modifications Beginning with 1995 Reporting Year**
  February 1995 (EPA 745-R-95-009)

## Chemical-Specific Guidance

EPA has developed a group of guidance documents specific to individual chemicals and chemical categories.

- ❑ **Toxics Release Inventory List of Toxic Chemicals within the Polychlorinated Alkanes Category and Guidance for Reporting**
  February 1995 (EPA745-R-95-001)

- ❑ **Toxics Release Inventory List of Toxic Chemicals within the Water Dissociable Nitrate Compounds Category and Guidance for Reporting**
  May 1996 (EPA745-R-96-003)

- ❑ **Toxics Release Inventory List of Toxic Chemicals within the Polyclic Aromatic Compounds Category**
  February 1995 (EPA745-R-95-004)

- ❑ **Toxics Release Inventory List of Toxic Chemicals within the Nicotine and Salt Category and Guidance for Reporting**
  February 1995 (EPA745-R-95-004)

- ❑ **Toxics Release Inventory List of Toxic Chemicals within the Strychnine and Salts Category and Guidance for Reporting**
  February 1995 (EPA745-R-95-005)

- ❑ **Toxics Release Inventory List of Toxic Chemicals within the Glycol Ethers Category and Guidance for Reporting**
  May 1995 (EPA745-R-95-006)

- ❑ **Emergency Planning and Community Right-to-Know Section 313: List of Toxic Chemicals within the Chlorophenols Category**
  November 1994 (EPA745-B-95-004)

- ❑ **Emergency Planning and Community Right-to-Know Section 313: Guidance for Reporting Aqueous Ammonia**
  July 1995 (EPA745-R-95-012)

- ❑ **Emergency Planning and Community Right-to-Know Section 313: Guidance for Reporting Sulfuric Acid (acid aerosols including mists, vapors, gas, fog and other airborne forms of any particle size)**
  November 1997 (EPA745-B-97-007)

- ❑ **Emergency Planning and Community Right-to-Know Section 313: Guidance for Reporting Hydrochloric Acid (acid aerosols including mists, vapors, gas, fog and other airborne forms of any particle size)**
  December 1999 (EPA 745-B-99-014)

## Industry-Specific Guidance

EPA has developed a group of individual guidance documents for certain industries.

- ❑ **Section 313 of the Emergency Planning and Community Right-to-Know Act; Toxic Chemical Release Inventory; Data Quality Checks to Prevent Common Reporting Errors on Form R/Form A**
  August 1998 (EPA 745-R-98-012)

- ❑ **Emergency Planning and Community Right-to-Know Act Section 313 Reporting Guidance for Spray Application and Electrodeposition of Organic Coatings**
  December 1998 (EPA 745-R-98-014)

- ❑ **Emergency Planning and Community Right-to-Know Act Section 313 Reporting Guidance for Food Processors**
  September 1998 (EPA 745-R-98-011)

- ❑ **Emergency Planning and Community Right-to-Know Act Section 313 Reporting Guidance for Rubber and Plastics Manufacturing**
  December 1998 (EPA 745-R-99-017)

- ❑ **Emergency Planning and Community Right-to-Know Act Section 313 Reporting Guidance for Semiconductor Manufacturing**
  December 1998 (EPA 745-R-98-007)

- ❑ **Emergency Planning and Community Right-to-Know Act Section 313: Guidance for Metal Mining Facilities**
  January1999 (EPA 745-B-99-001)

- ❑ **Emergency Planning and Community Right-to-Know Act Section 313: Guidance for Coal Mining Facilities**
  January 1999 (EPA 745-B-99-002)

- ❑ **Emergency Planning and Community Right-to-Know Act Section 313: Guidance for Electricity Generating Facilities**
  January 1999 (EPA 745-B-99-003)

- ❑ **Emergency Planning and Community Right-to-Know Act Section 313: Guidance for RCRA Subtitle C TSD Facilities and Solvent Recovery Facilities**
  January 1999 (EPA 745-B-99-004)

- ❑ **Emergency Planning and Community Right-to-Know Act Section 313: Guidance for Chemical Distribution Facilities**
  January 1999 (EPA 745-B-99-005)

- ❑ **Emergency Planning and Community Right-to-Know Act Section 313: Guidance for Petroleum Bulk Storage Facilities**
  January 1999 (EPA 745-B-99-006)

**PLEASE TYPE MAILING ADDRESS HERE (DO NOT ATTACH BUSINESS CARDS)**

Name/Title _____

Company Name _____

Mail Stop _____

Street Address _____

P.O. Box _____

City/State/Zip Code _____

**Paperwork Reduction Act Notice:** The annual public burden related to the Form R, which is approved under OMB Control No. 2070-0093, is estimated to average 52.1 hours per response. The annual public burden related to the Form A, which is approved under OMB Control No. 2070-0143, is based on a combination of the estimated burdens for 1) determining whether a listed toxic chemical is eligible for certification under the alternate threshold, and 2) completing the Form A. The burden of determining eligibility for certification is estimated to average 33.2 hours for each chemical that is certified. The burden of completing the Form A is estimated to average 1.4 hours, regardless of the number of chemicals being certified. The total burden per response is the combination of these two, and will vary depending on the number of listed toxic chemicals being certified.

According to the Paperwork Reduction Act, "burden" means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. For this collection it includes the time needed to review instructions; train personnel to be able to respond to the collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for this information collection appear above and on the forms. In addition, the OMB control numbers for EPA's regulations, after initial display in the final rule, are listed in 40 CFR part 9.

Send comments on the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OP Regulatory Information Division, U.S. Environmental Protection Agency (Mail Code 2137), 401 M Street, S.W., Washington, D.C. 20460. Include the OMB control number in any correspondence, but do not submit the requested information to this address. The completed forms should be submitted in accordance with the instructions accompanying the form, or as specified in the corresponding regulation.

(IMPORTANT: Type or print; read instructions before completing form)

Form Approved OMB Number: 2070-0093
Approval Expires: 01/01/2001



EPA
United States Environmental Protection Agency

# FORM R

TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

**WHERE TO SEND COMPLETED FORMS:** 1. EPCRA Reporting Center, P.O Box 3348, Merrifield, VA 22116-3348, ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision ☐

For EPA use only

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR _____

### SECTION 2. TRADE SECRET INFORMATION

**2.1** Are you claiming the toxic chemical identified on page 2 trade secret?
☐ Yes (Answer question 2.2; Attach substantiation forms) ☐ No (Do not answer 2.2; Go to Section 3)

**2.2** Is this copy ☐ Sanitized ☐ Unsanitized
(Answer only if "YES" in 2.1)

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| | | |

### SECTION 4. FACILITY IDENTIFICATION

**4.1** TRI Facility ID Number

| Facility or Establishment Name | Facility or Establishment Name or Mailing Address(if different from street address) |
|---|---|
| Street | Mailing Address |
| City/County/State/Zip Code | City/County/State/Zip Code |

**4.2** This report contains information for: (Important : check a or b; check c if applicable)
a. ☐ An entire facility b. ☐ Part of a facility c. ☐ A Federal facility

**4.3** Technical Contact Name — Telephone Number (include area code)

**4.4** Public Contact Name — Telephone Number (include area code)

**4.5** SIC Code (s) (4 digits)

| Primary | | | | | |
|---|---|---|---|---|---|
| a. | b. | c. | d. | e. | f. |
| | | | | | |

**4.6** Latitude / Longitude

| Latitude Degrees | Latitude Minutes | Latitude Seconds | Longitude Degrees | Longitude Minutes | Longitude Seconds |
|---|---|---|---|---|---|
| | | | | | |

| 4.7 Dun & Bradstreet Number(s) (9 digits) | 4.8 EPA Identification Number (RCRA I.D. No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. | a. | a. | a. |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

**5.1** Name of Parent Company — NA ☐

**5.2** Parent Company's Dun & Bradstreet Number — NA ☐

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# EPA FORM R
# PART II. CHEMICAL-SPECIFIC INFORMATION

TRI Facility ID Number

Toxic Chemical, Category or Generic Name

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| 1.3 | Generic Chemical Name (Important: Complete **only** if Part 1, Section 2.1 is checked "yes". Generic Name must be structurally descriptive.) |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

**(Important: Check all that apply.)**

| 3.1 Manufacture the toxic chemical: | 3.2 Process the toxic chemical: | 3.3 Otherwise use the toxic chemical: |
|---|---|---|
| a. ☐ Produce b. ☐ Import | | |
| If produce or import: | | |
| c. ☐ For on-site use/processing | a. ☐ As a reactant | a. ☐ As a chemical processing aid |
| d. ☐ For sale/distribution | b. ☐ As a formulation component | b. ☐ As a manufacturing aid |
| e. ☐ As a byproduct | c. ☐ As an article component | c. ☐ Ancillary or other use |
| f. ☐ As an impurity | d. ☐ Repackaging | |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

4.1 ☐ (Enter two-digit code from instruction package.)

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year) (Enter range code or estimate*) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA ☐ | | | |
| 5.2 | Stack or point air emissions | NA ☐ | | | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |
| 5.4.1 | Underground Injection onsite to Class I Wells | NA ☐ | | | |
| 5.4.2 | Underground Injection onsite to Class II-V Wells | NA ☐ | | | |

**If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box** ☐
**and indicate the Part II, Section 5.3 page number in this box.** ☐ **(example: 1,2,3, etc.)**



* Range Codes: A= 1 - 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

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# EPA FORM R
## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

Toxic Chemical, Category or Generic Name

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release (pounds/year) (enter range code* or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.5 | Disposal to land onsite | | | |
| 5.5.1A | RCRA Subtitle C landfills | ☐ | | |
| 5.5.1B | Other landfills | ☐ | | |
| 5.5.2 | Land treatment/application farming | ☐ | | |
| 5.5.3 | Surface Impoundment | ☐ | | |
| 5.5.4 | Other disposal | ☐ | | |

## SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1. Total Transfers (pounds/year) (enter range code* or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.1.B.__ POTW Name | | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |
| 6.1.B.__ POTW Name | | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |

**If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box ☐ and indicate the Part II, Section 6.1 page number in this box ☐ (example: 1,2,3, etc.)**

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.2. ___ Off-Site EPA Identification Number (RCRA ID No.) | | | | | | | |
| Off-Site Location Name | | | | | | | |
| Off-Site Address | | | | | | | |
| City | | State | | County | | Zip | |

Is location under control of reporting facility or parent company? ☐ Yes ☐ No



* Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds.

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Please do not copy double-sided!

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

Toxic Chemical, Category or Generic Name

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year) (enter range code* or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

6.2.___ Off-Site EPA Identification Number (RCRA ID No.)

Off-Site location Name

Off-Site Address

City | State | County | Zip

Is location under control of reporting facility or parent company? ☐ Yes ☐ No

| A. Total Transfers (pounds/year) (enter range code* or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

### SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

☐ Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d % | 7A.1e Yes ☐ No ☐ |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d % | 7A.2e Yes ☐ No ☐ |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d % | 7A.3e Yes ☐ No ☐ |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d % | 7A.4e Yes ☐ No ☐ |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d % | 7A.5e Yes ☐ No ☐ |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box ☐ and indicate the Part II, Section 6.2/7A page number in this box : ☐ (example: 1,2,3, etc)**



* Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds.

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Please do not copy double-sided!

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

Toxic Chemical, Category or Generic Name

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☐ Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

1 ☐ 2 ☐ 3 ☐ 4 ☐

## SECTION 7C. ON-SITE RECYCLING PROCESSES

☐ Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

1. ☐ 2. ☐ 3. ☐ 4. ☐ 5. ☐

6. ☐ 7. ☐ 8. ☐ 9. ☐ 10. ☐

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year) | Column B Current Reporting Year (pounds/year) | Column C Following Year (pounds/year) | Column D Second Following Year (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released ** | | | | |
| 8.2 | Quantity used for energy recovery onsite | | | | |
| 8.3 | Quantity used for energy recovery offsite | | | | |
| 8.4 | Quantity recycled onsite | | | | |
| 8.5 | Quantity recycled offsite | | | | |
| 8.6 | Quantity treated onsite | | | | |
| 8.7 | Quantity treated offsite | | | | |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | | | |
| 8.9 | Production ratio or activity index | | | | |

| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | |
|---|---|---|---|---|
| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
| 8.10.1 | | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| 8.11 | Is additional information on source reduction, recycling, or pollution control activities included with this report ? (Check one box) | YES ☐ | NO ☐ |
|---|---|---|---|

** Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated onsite or offsite.

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Please do not copy double-sided!

(IMPORTANT: Type or print; read instructions before completing form)

Form Approved OMB Number: 2070-0143
Approval Expires: 01/01/2001



United States Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY
## FORM A

**WHERE TO SEND COMPLETED FORMS:** 1. EPCRA Reporting Center, P.O Box 3348, Merrifield, VA 22116-3348, ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision ☐

For EPA use only

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR _____

### SECTION 2. TRADE SECRET INFORMATION

**2.1** Are you claiming the toxic chemical identified on page 2 trade secret?
☐ Yes (Answer question 2.2; Attach substantiation forms) ☐ No (Do not answer 2.2; Go to Section 3)

**2.2** Is this copy ☐ Sanitized ☐ Unsanitized
(Answer only if "YES" in 2.1)

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that to the best of my knowledge and belief, for each toxic chemical listed in the statement, the annual reportable amount as defined in 40 CFR 372.27 (a), did not exceed 500 pounds for this reporting year and that the chemical was manufactured, processed, or otherwise used in an amount not exceeding 1 million pounds during this reporting year.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| | | |

### SECTION 4. FACILITY IDENTIFICATION

**4.1** TRI Facility ID Number

Facility or Establishment Name

Facility or Establishment Name or Mailing Address(if different from street address)

Street

Mailing Address

City/County/State/Zip Code

City/County/State/Zip Code

**4.2** This report contains information for: (Important : check c if applicable)
c. ☐ A Federal facility

**4.3** Technical Contact Name

Telephone Number (include area code)

**4.4** Intentionally left blank

**4.5** SIC Code (s) (4 digits)

| Primary a. | b. | c. | d. | e. | f. |
|---|---|---|---|---|---|
| | | | | | |

**4.6**

| Latitude | Degrees | Minutes | Seconds | Longitude | Degrees | Minutes | Seconds |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| 4.7 Dun & Bradstreet Number(s) (9 digits) | 4.8 EPA Identification Number (RCRA I.D. No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. | a. | a. | a. |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

**5.1** Name of Parent Company NA ☐

**5.2** Parent Company's Dun & Bradstreet Number NA ☐

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Please do not copy double-sided!

## EPA FORM A
## PART II. CHEMICAL IDENTIFICATION

TRIFID:

### SECTION 1. TOXIC CHEMICAL IDENTITY

Report ___ of ___

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive.) |

### SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces and punctuation.) |


### SECTION 1. TOXIC CHEMICAL IDENTITY

Report ___ of ___

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive.) |

### SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces and punctuation.) |

### SECTION 1. TOXIC CHEMICAL IDENTITY

Report ___ of ___

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive.) |

### SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces and punctuation.) |

### SECTION 1. TOXIC CHEMICAL IDENTITY

Report ___ of ___

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive.) |

### SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces and punctuation.) |

### SECTION 1. TOXIC CHEMICAL IDENTITY

Report ___ of ___

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive.) |

### SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces and punctuation.) |

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Please do not copy double-sided!

# A. General Information

Reporting to the Toxic Chemical Release Inventory (TRI) is required by section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA, or Title III of the Superfund Amendments and Reauthorization Act of 1986), Public Law 99-499. The information contained in the Form R constitutes a "report," and the submission of a report to the appropriate authorities constitutes "reporting."

The Pollution Prevention Act, passed into law in October, 1990 (Pub. L. 101-508), added reporting requirements to Form R. These requirements affect all facilities required to submit Form R under section 313 of EPCRA. The data were required beginning with reports for calendar year 1991.

Reporting is required to provide the public with information on the releases of EPCRA Section 313 chemicals in their communities and to provide EPA with release information to assist the Agency in determining the need for future regulations. Facilities must report the quantities of both routine and accidental releases of EPCRA Section 313 chemicals, as well as the maximum amount of the EPCRA Section 313 chemical on-site during the calendar year and the amount contained in wastes managed on-site or transferred off-site.

A completed Form R or Form A must be submitted for each EPCRA Section 313 chemical manufactured, processed, or otherwise used at each covered facility as described in the reporting rules in 40 CFR Part 372 (originally published February 16, 1988, in the Federal Register and November 30, 1994, in the Federal Register (for Form A)). These instructions supplement and elaborate on the requirements in the reporting rule. Together with the reporting rule, they constitute the reporting requirements. All references in these instructions are to sections in the reporting rule unless otherwise indicated.

## A.1 Who Must Report

Section 313 of EPCRA requires that reports be filed by owners and operators of facilities that meet all of the following criteria.

- ❑ The facility has 10 or more full-time employees; and
- ❑ The facility is included in Standard Industrial Classification (SIC) Codes 10 (except 1011, 1081, and 1094), 12 (except 1241), 20–39, 4911 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4953 (limited to facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 *et seq.*), 5169, 5171, and 7389 (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis); and
- ❑ The facility manufactures (defined to include importing), processes, or otherwise uses any EPCRA Section 313 chemical in quantities greater than the established threshold in the course of a calendar year.

## A.2 How to Assemble a Complete Report

### A.2.a. The Toxic Chemical Release Reporting Form, EPA Form R

The five-page EPA Form R consist of two parts:

- ❑ Part I, Facility Identification Information (page 1); and
- ❑ Part II, Chemical-Specific Information (pages 2-5).

Most of the information required in Part I of Form R can be completed, photocopied, and attached to each chemical-specific report. However, Part I of each Form R submitted must have an original signature on the certification statement and the trade secret designation must be entered as appropriate. Part II must be completed separately for each EPCRA Section 313 chemical or chemical category. Because a complete Form R consists of at least five unique pages, any submission containing less than five unique pages is not a valid submission.

A complete report for any EPCRA Section 313 chemical that is not claimed as a trade secret consists of the following completed parts:

- ❑ Part I with an original signature on the certification statement (section 3); and
- ❑ Part II (Note: Section 8 is mandatory).

Staple all five pages of each report together. If you check yes on Part II, Section 8.11, you may attach additional information on pollution prevention activities at your facility.

### A.2.b. The Alternate Toxic Chemical Release Inventory Form, EPA Form A

EPA Form A was established in 1994 as a substitute for reporting Form R information. This is based on an alternate threshold for facilities with low amounts of an EPCRA Section 313 chemical in waste. The Form A serves as an alternate to Form R, such that completion of the Form A is in lieu of Form R. Like the Form R described above, the Form A consists of two parts, but only consists of a total of two pages.

- Part I, Facility Identification Information, which also includes the "certification" regarding the eligibility to use the Form A (page 1 and the top of page 2); and
- Part II, Chemical Identification (the bottom of page 2).

Since 1998, the Form A may be used to report multiple chemicals. Four chemicals may be reported on page 2 of the form. If more than four chemicals are to be reported, additional copies of page 2 can be used to report qualifying chemicals. The Form A must have an original certification statement on page 1 and contain an appropriate trade secret designation for the form. A complete report for Form A consists of at least two pages for each submission.

## A.3 Trade Secret Claims

For any EPCRA Section 313 chemical whose identity is claimed as trade secret, you must submit to EPA two versions of the substantiation form as prescribed in 40 CFR Part 350, published July 29, 1988, in the Federal Register (53 FR 28772) as well as two versions of the EPCRA Section 313 report. One set of reports, the "unsanitized" version, should provide the actual identity of the EPCRA Section 313 chemical. The other set of reports the "sanitized" version, should provide only a generic identity of the EPCRA Section 313 chemical. If EPA deems the trade secret substantiation form valid, only the sanitized set of forms will be made available to the public.

Use the order form in this document to obtain copies of the rule and substantiation form. Further explanation of the trade secret provisions is provided in Part I, Sections 2.1 and 2.2, and Part II, Section 1.3, of the instructions.

In summary, a complete report to EPA for an EPCRA Section 313 chemical claimed as a trade secret must include all of the following:

- A completed "unsanitized" version of Form R or Form A report including the EPCRA Section 313 chemical identity (staple the pages together);
- A sanitized version of a completed Form R or Form A report in which the EPCRA Section 313 chemical identity items (Part II, Sections 1.1 and 1.2) have been left blank but in which a generic chemical name has been supplied (Part II, Section 1.3) (staple the pages together);
- A completed "unsanitized" version of a trade secret substantiation form (staple the pages together); and
- A sanitized version of a completed trade secret substantiation form (staple the pages together).

Securely fasten all four reports together.

Some states also require submission of both sanitized and unsanitized reports for EPCRA Section 313 chemicals whose identity is claimed as a trade secret. Others require only a sanitized version. Facilities may jeopardize the trade secret status of an EPCRA Section 313 chemical by submitting an unsanitized version of the EPCRA Section 313 report to a state agency or Indian tribe that does not require unsanitized forms. You may identify an individual State's submission requirements by contacting the appropriate state-designated Section 313 contact (see Appendix F).

## A.4 Recordkeeping

Sound recordkeeping practices are essential for accurate and efficient TRI reporting. It is in the facility's interest, as well as EPA's, to maintain records properly.

Facilities must keep a copy of each report filed for at least three years from the date of submission. These reports will be of use when completing future reports.

Facilities must also maintain those documents, calculations, worksheets, and other forms upon which they relied to gather information for prior reports. In the event of a problem with data elements on a facility's Form R or Form A report, EPA may request documentation from the facility that supports the information reported.

EPA may conduct data quality reviews of Form R or Form A submissions. An essential component of this process involves reviewing a facility's records for accuracy and completeness. Facilities should keep a record for those EPCRA Section 313 chemicals for which they did not file EPCRA Section 313 reports.

A partial list of records, organized by year, that a facility should maintain include:

- ❑ Previous years' EPCRA Section 313 reports;
- ❑ Section 313 Reporting Threshold Worksheets;
- ❑ Engineering calculations and other notes;
- ❑ Purchase records from suppliers;
- ❑ Inventory data;
- ❑ EPA (NPDES) permits and monitoring reports;
- ❑ EPCRA Section 312, Tier II Reports;
- ❑ Monitoring records;
- ❑ Flowmeter data;
- ❑ RCRA Hazardous Waste Generator's Report;
- ❑ Pretreatment reports filed by the facility with the local government;
- ❑ Invoices from waste management companies;
- ❑ Manufacturer's estimates of treatment efficiencies;
- ❑ RCRA Manifests;
- ❑ Process diagrams that indicate emissions and other releases; and
- ❑ Records for those EPCRA Section 313 chemicals for which they did not file EPCRA Section 313 reports.

## A.5 How to Prepare a Voluntary Revision of a Previous Submission

Starting with the 1998 reporting year, voluntary revisions must be submitted by July 31st of the same year as the reporting deadline for the revised data to be included in the next TRI data release. You may submit hardcopy revisions or electronic versions using ATRS or other approved reporting software.

Hardcopy revisions may be submitted using the most recent form available or the most recent version of the ATRS software (for Reporting Years after 1990). Certify and date the form on Page 1 or provide a cover letter with the software created data revision. Alternatively, you may submit a photocopy of your original submission (from your file) with the corrections made in blue ink. Re-sign and re-date the certification statement on Page 1. For revisions to 1990 and earlier reporting year submissions, use the paper form and write "VOLUNTARY REVISION" on page 1 of the form. For revisions to 1991 and later reporting year submissions, enter "X" in the space marked "Enter "x" here if this is a revision", on page 1 of the form.

The EPA magnetic media software allows you to revise your form data and submit your revisions for any reporting year after 1990. The documentation provided with the magnetic media submission software contains specific instructions, or you may call the magnetic media technical support hotline at (703) 816-4434. The Technical Support Hotline number is to be used for the ATRS and does not provide regulatory support. If you submitted your Form R data using software developed by an EPA approved Form Software developer, you must contact the software developer to determine if their software is capable of creating revisions. If not, you can use either the ATRS software or the current hardcopy paper form. Please be careful when submitting magnetic media revisions to resubmit only the revised submissions. Do not resubmit a diskette containing all of your original submissions if you are only revising one or several of them. Whenever you submit a diskette to EPA, do not also submit a printout of what is on the diskette because they will both be processed through data entry causing duplicate records for your facility.

### A.5.a. Where to Submit a Voluntary Revision of a Previous Submission

Revisions should be submitted to EPA and the appropriate state agency (or the designated official of an Indian tribe) to whom you submitted the original Form (see Section A.6.a).

Please note: Submissions for the next reporting year are NOT considered revisions of the previous year's data.

## A.6 When the Report Must Be Submitted

The report for any calendar year must be submitted on or before July 1 of the following year whether using Form R or Form A. Any voluntary revision to a report can be submitted anytime during the calendar year for the current or any previous reporting year.

## A.7 Where to Send the Forms

Submissions must be sent to both EPA and the State (or the designated official of an Indian tribe). If a report is not received by both EPA and the State (or the designated official of an Indian tribe), the submitter is considered out of compliance and subject to enforcement action.

Send reports to EPA by regular mail to:

EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
Attn: Toxic Chemical Release Inventory

Certified mail, overnight mail, and hand-delivered submissions only should be addressed to:
EPCRA Reporting Center

c/o Computer Based Systems Inc.
Suite 300
4600 North Fairfax Drive
Arlington, VA 22203
(703) 816-4445

Also send a copy of the report to the State in which the facility is located. ("State" also includes: the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, Marshall Islands, the U.S. Virgin Islands, the Northern Mariana Islands, and any other territory or possession over which the U.S. has jurisdiction.) Refer to Appendix F for the appropriate State submission addresses.

Facilities located on Indian land should send a copy to the Chief Executive Officer of the applicable Indian tribe. Some tribes have entered into a cooperative agreement with States; in this case, report submissions should be sent to the entity designated in the cooperative agreement.

Submission of Section 313 reports in magnetic media and computer-generated facsimile formats has been approved by EPA. EPA has developed a package called the "Automated Toxic Chemical Release Inventory Reporting Software (ATRS)." The easy-to-use CD-ROM comes with complete instructions for its use. It also provides prompts and messages to help you report according to EPA instructions. For copies of the CD-ROM you may call the National Service Center for Environmental Publications at 1-800-490-9198.

Many firms are offering computer software to assist facilities in producing magnetic media submissions for computer-generated facsimiles of EPCRA Section 313 reports. To ensure accuracy, EPA will only accept magnetic media submissions and computer-generated facsimiles that meet basic specifications established by EPA. To determine if the software offered by a firm meets these specifications, EPA reviews and approves all software upon request. Call the EPCRA Hotline or visit EPA's website at http://www.epa.gov/tri to obtain a list of EPA-approved vendors.

It should be noted, however, that some States may accept only hard copies of EPCRA Section 313 report. If this is the case, a magnetic media or computer-generated facsimile may be unacceptable.

## A.7.a. How to Send Your Disks Containing Form R(s) and/or Form A(s)

Included in this reporting package (on the enclosed CD-ROM) is the Automated TRI Reporting Software (ATRS). If you use the ATRS, please follow the instructions below for submitting your TRI forms on magnetic media.

### A.7.a.1 Labeling Your Submission Diskette

A label must be attached to each diskette. The label may be typed or legibly handwritten. A sample label with the necessary information is shown below.

| TRIS Report | |
|---|---|
| Company Name | |
| Date: 6/30/2000<br>Report Year: 1999 | Density: HD<br>Number: 1 of 1 |
| Contact: Technical Contact Name<br>(505) 555-5369 | |

The types of packaging and shipping used for magnetic media are left to the discretion of the submitting facility. Please send completed diskettes, along with a cover letter and an original certification signature from each submitting facility to:

EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
Attn: TRI Magnetic Media Submission

If you are submitting reports on magnetic diskette to EPA, you must enclose a cover letter signed by the official listed in section 3 of Part I of the Form R or Form A (name and official title of owner/operator or senior management official) for *each separate facility*. Beginning reporting year 1999, ATRS allows you to also print a cover letter for submission to a state agency. These letters can be printed from ATRS. The letter on page 6 is a sample. Since you are filing electronically, do not include paper copies of the reports that are on the diskette.

### A.7.a.2 Submitting Electronically to States

Submitters must submit a copy of each Form R or Form A to the appropriate state agency. As of the publication of this book, the following states confirmed that they accept electronic submissions:

| | | | |
|---|---|---|---|
| AK | ID | NC | SC |
| AZ | IL | ND | SD |
| CA | IN | NJ | TX |
| CO | KS | NM | UT |
| DC | LA | NY | VA |
| DE | MD | NV | VT |
| FL | MI | OH | WA |
| GA | MN | OK | WI |
| HI | MO | OR | WV |
| IA | MT | PA | WY |

If your state is not listed here, please contact your state office to confirm that paper submissions are required. A list of state contacts can be found in Appendix F.

## A.8 How to Obtain Forms and Other Information

A copy of both forms is included in this booklet. Remove the appropriate form and produce as many photocopies as needed. Related guidance documents may be obtained from:

EPA's TRI Website (http:// www.epa.gov/tri) and the Emergency Planning and Community Right-to-Know Information Hotline.

U.S. EPA/NSCEP
P.O. Box 42419
Cincinnati, OH 45242-2419
(800) 490-9198
Fax (513) 489-8695
Internet: http://www.epa.gov/ncepihom/

See Chemical and Industry Specific Documents section for the document request form and more information on available documents.

Questions about completing Form R or Form A may be directed to the EPCRA Hotline at the following address or telephone numbers.

> Emergency Planning and Community Right-to-Know Information Hotline
> U.S. Environmental Protection Agency
> 1200 Pennsylvania Ave., SW (5101)
> Washington, DC 20460
> 1 (800) 424-9346 or (703) 412-9877;
> TDD# (800) 553-7672
> from 9:00 a.m.- 6:00 p.m. Eastern Time
> (Mon. - Fri., except Federal Holidays)

EPA Regional Staff may also be of assistance. Refer to Appendix G for a list of EPA Regional Offices.

**Sample Letter** — one copy to EPCRA Reporting Center and one to appropriate state agency (see Appendix F).

June 20, 2000

To Whom It May Concern:

You will find enclosed one (1) diskette containing toxic chemical release reporting information for:

YOUR FACILITY NAME

This information is submitted as required under Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and the Pollution Prevention Act of 1990.

A total of two (2) reports is included from our facility, concerning the following chemicals:

| Chemical Name | RY | CAS Number |
|---|---|---|
| Lead compounds | 1999 | NA420 |
| Zinc (fume or dust) | 1999 | 7440-66-6 |

Our technical point of contact is:

TECHNICAL CONTACT NAME, Telephone Number: (505) 555-1212

[NAME] is available should any questions or problems arise as you process these diskettes.

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate, based on reasonable estimates using data available to the preparers of this report.

Signature: *Chris Submitter*

# B. Facility Eligibility Determination for Submitting an EPCRA Section 313 Report

This section will help you determine whether you must submit an EPCRA Section 313 report. This section discusses EPCRA Section 313 reporting requirements such as the number of full-time employees, primary SIC code, and chemical activity threshold quantities. The EPCRA Section 313 chemicals and chemical categories subject to reporting are listed in Table II (also see 40 CFR 372.65). (See Figure 1 for more information)

## B.1 Full-Time Employee Determination

The number of full-time "employees" is dependent only upon the total number of hours worked by all employees and other individuals (e.g., contractors) for the facility during the calendar year and not the number of persons working. Therefore, a "full-time employee," for purposes of Section 313 reporting, is defined as 2,000 work hours per year and includes paid leave and holidays. To determine the number of full-time employees working for your facility, add up the hours worked by all employees during the calendar year, including contract employees and sales and support staff working for the facility, and divide the total by 2,000 hours. In other words, if the total number of hours worked by all employees is 20,000 hours or more, your facility meets the ten employee threshold.

Examples include:

- A facility consists of 11 employees who each worked 1,500 hours for the facility in a calendar year. Consequently, the total number of hours worked by all employees for the facility during the calendar year is 16,500 hours. The number of full-time employees for this facility is equal to 16,500 hours divided by 2,000 hours per full-time employee, or 8.3 full-time employees. Therefore, even though 11 persons worked for this facility during the calendar year, the number of hours worked is equivalent to 8.3 full-time employees. This facility does not meet the employee criteria and is not subject to Section 313 reporting.

- Another facility consists of six workers and three sales staff. The six workers each worked 2,000 hours for the facility in the calendar year. The sales staff also each worked 2,000 hours in the calendar year although they may have been on the road half of the year. In addition, five contract employees were hired for a period during which each worked 400 hours for the facility. The total number of hours is equal to the time worked by the workers at the facility (12,000 hours), plus the time worked by the sales staff for the facility (6,000 hours), plus the time worked by the contract employees at the facility (2,000 hours), or 20,000 hours. Dividing the 20,000 hours by 2,000 yields 10 full-time employees. This facility has met the full time employee criteria and may be subject to reporting if the other criteria are met.

## B.2 Primary SIC Code Determination

Standard Industrial Classification (SIC) codes 10 (except 1011, 1081, and 1094), 12 (except 1241), 20–39, 4911 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4953 (limited to facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 *et seq.*), 5169, 5171, and 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis) are covered by the rule and are listed in Table I. The first two digits of a 4-digit SIC code define a major business sector, while the last two digits denote a facility's specialty within the major sector. For a detailed description of 4-digit SIC codes, refer to the "Standard Industrial Classification Manual 1987." The facility should determine its own SIC code (s), based on its activities on-site, using the SIC Manual. State agencies and other organizations may assign SIC codes on a different basis than the one used by the SIC Manual. However, for purposes of TRI reporting, these state assigned codes should not be used if they differ from ones assigned using the SIC Manual.

The EPCRA Hotline can assist facilities with determining which SIC codes are assigned for specific business activities as referenced in the SIC Manual. Clothbound editions of the SIC Manual are available in most major libraries or may be ordered through the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, (703) 605-6000. The access number for the clothbound manual is PB87-100012, and the price is $30.00.

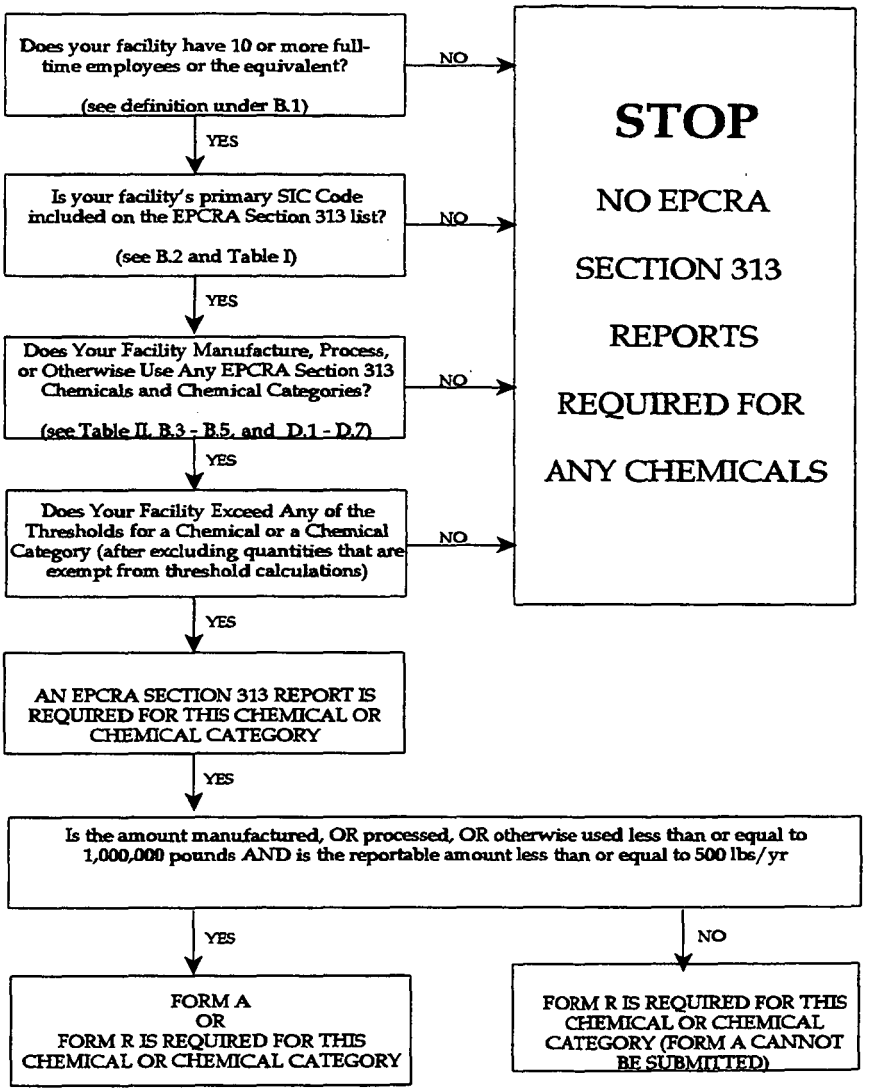


**Figure 1 EPCRA Section 313 Reporting Decision Diagram**

The North American Industry Classification System (NAICS), is a new economic classification system that will replace the 1987 SIC code system. EPA will address the SIC code change, as it relates to EPCRA in an upcoming Federal Register notice. This upcoming change does NOT affect the 1999 EPCRA Section 313 reporting.

### B.2.a. Multi-Establishment Facilities

Your facility may include multiple establishments that have different SIC codes. A multi-establishment facility is a facility that consists of two or more distinct and separate economic units. If your facility is a multi-establishment facility, calculate the value of the products produced, shipped, or services provided from each establishment within the facility and then use the following rule to determine if your facility meets the SIC code criterion:

- If the total value of the products produced, shipped, or services provided at establishments with SIC codes 10 (except 1011, 1081, and 1094), 12 (except 1241), 20–39, 4911 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4953 (limited to facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 *et seq.*), 5169, 5171, and 7389 (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis) is greater than 50 percent of the value of the entire facility's products and services, the entire facility meets the SIC code criterion.

- If any one establishment with an SIC code 10 (except 1011, 1081, and 1094), 12 (except 1241), 20–39, 4911 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4953 (limited to facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 *et seq.*), 5169, 5171, or 7389 (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis) produces or ships products or provides services whose value exceeds the value of products and services produced or shipped by any other establishment within the facility, the facility also meets the SIC code criterion.

The value of production or service attributable to a particular establishment may be isolated by subtracting the product value obtained from other establishments within the same facility from the total product or service value of the facility. This procedure eliminates the potential for "double counting" production and services in situations where establishments are engaged in sequential production or service activities at a single facility.

Examples include:

- A facility in coating, engraving and allied services has two establishments. The first establishment, a general automotive repair service, is in SIC code 7537, which is not a covered SIC code. However, the second establishment, a metal paint shop is in SIC code 3479, which is a covered SIC code. The metal paint shop paints the parts received from general automotive repair service. The facility determines the product is worth $500/unit as received from the general automotive repair service (in non covered SIC code 7537) and the value of the product is $1500/unit after processing by the metal paint shop (in covered SIC code 3479). The value added by the metal paint shop is obtained by subtracting the value of the products from the general automotive repair service from that of the value of the products of the metal paint shop. (In this example, the value added = $1,500/unit - $500/unit = $1,000/unit.) The value added ($1,000/unit) by the establishment in SIC code 3479 is more than 50% of the product value. Therefore, the facility's primary SIC code is 3479, which is a covered SIC code.

- A food processing establishment in a facility processes crops grown at the facility in a separate establishment. The facility could base the value of the products of each establishment on the total production value of each establishment.

Alternatively, the facility could first determine the value of the crops grown at the agricultural establishment, and then calculate the contribution of the food processing establishment by subtracting the crop value from the total value of the product shipped from the processing establishment (value of product shipped from processing - crop value = value of processing establishment)

A covered multi-establishment facility must make EPCRA Section 313 chemical threshold determinations and, if required, must report all relevant information about releases and other waste management activities, and source reduction activities associated with an EPCRA Section 313 chemical for the entire facility, even from establishments that are not in SIC codes 10 (except

1011, 1081, and 1094), 12 (except 1241), 20–39, 4911 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4953 (limited to facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 *et seq.*), 5169, 5171, and 7389 (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis). EPA realizes, however, that certain establishments in a multi-establishment facility can be, for all practical purposes, separate business units. Therefore, individual establishments may report releases and other waste management activities separately, provided that the total releases and other waste management quantities for the whole facility are represented by the sum of the releases and other quantities managed as waste reported by each of the separate establishments and the compliance determination is based on the entire facility.

### B.2.b. Auxiliary Facilities

An auxiliary facility is one that supports another covered establishment's activities (e.g., research and development laboratories, warehouses, and storage facilities). An auxiliary facility can assume the SIC code of another covered establishment if its primary function is to service that other covered establishment's operations. For the purposes of EPCRA Section 313, auxiliary facility is defined as one primarily engaged in performing support services for another covered establishment or multiple establishments of a covered facility and is in a different physical location than the primary facility. In addition, an auxiliary facility performs an integral role in the primary facility's activities. In general, an auxiliary facility's basic administrative services (paperwork, payroll, employment) are performed by the primary facility. Thus, a separate warehouse facility (i.e., one not located within the physical boundaries of a covered facility) may become a covered facility because it services a covered establishment in SIC codes 10 (except 1011, 1081, and 1094), 12 (except 1241), 20–39, 4911 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4953 (limited to facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 *et seq.*), 5169, 5171, and 7389 (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis). Auxiliary facilities that are in these aforementioned codes are required to report if they meet the employee criterion and reporting thresholds for manufacture, process, or otherwise use.

### B.2.c. Property Owners

You are not required to report if you merely own real estate on which a facility covered by this rule is located; that is, you have no other business interest in the operation of that facility (e.g., your company owns an industrial park). The operator of that facility, however, is subject to reporting requirements.

## B.3 Activity Determination

### B.3.a. Definitions of "Manufacture," "Process," and "Otherwise Use"

**Manufacture:** The term "***manufacture***" means to produce, prepare, compound, or import an EPCRA Section 313 chemical. (See Part II, Section 3.1 of these instructions for further clarification.)

Import is defined as causing the EPCRA Section 313 chemical to be imported into the customs territory of the United States. If you order an EPCRA Section 313 chemical (or a mixture containing the chemical) from a foreign supplier, then you have imported the chemical when that shipment arrives at your facility directly from a source outside of the United States. By ordering the chemical, you have "caused it to be imported," even though you may have used an import brokerage firm as an agent to obtain the EPCRA Section 313 chemical.

***Do Not Overlook Coincidental Manufacture***

The term manufacture also includes coincidental production of an EPCRA Section 313 chemical (e.g., as a byproduct or impurity) as a result of the manufacture, processing, otherwise use, or treatment of other chemical substances. In the case of coincidental production of an impurity (i.e., an EPCRA Section 313 chemical that remains in the product that is distributed in commerce), the *de minimis* exemption, discussed in Section B.3.b of these instructions, applies. The *de minimis* exemption does not apply to byproducts (e.g., an EPCRA Section 313 chemical that is separated from a process stream and further processed or disposed). Certain EPCRA Section

313 chemicals may be manufactured as a result of wastewater treatment or other treatment processes. For example, neutralization of acid wastewater can result in the coincidental manufacture of ammonium nitrate (solution), reportable as a member of the nitrate compound category.

**Process:** The term "***process***" means the preparation of a listed Section 313 chemical, after its manufacture, for distribution in commerce. Processing is usually the intentional incorporation of a Section 313 chemical into a product (see Part II, Section 3.2 of these instructions for further clarification). Processing includes preparation of the EPCRA Section 313 chemicals in the same physical state or chemical form as that received by your facility, or preparation that produces a change in physical state or chemical form. The term also applies to the processing of a mixture or other trade name product (see Section B.4.b of these instructions) that contains a listed Section 313 chemical as one component.

**Otherwise Use:** The term "***otherwise use***" usually means any use of an EPCRA Section 313 chemical, including an EPCRA Section 313 chemical contained in a mixture or other trade name product, or waste that is not covered by the terms "manufacture" or "process." Otherwise use of an EPCRA Section 313 chemical does not include disposal, stabilization (without subsequent distribution in commerce), or treatment for destruction unless:

(1) The EPCRA Section 313 chemical that was disposed, stabilized, or treated for destruction was received from off-site for the purposes of further waste management; or

(2) The EPCRA Section 313 chemical that was disposed, stabilized, or treated for destruction was manufactured as a result of waste management activities on materials received from off-site for the purposes of waste management activities. Relabeling or redistributing of the EPCRA Section 313 chemical where no repackaging of the EPCRA Section 313 chemical occurs does not constitute an otherwise use or processing of the EPCRA Section 313 chemical." (See 62 FR 23846 and Part II, Section 3.3 of these Instructions for further clarification).

**Example 1: Coincidental Manufacture**

Your company, a nitric acid manufacturer, uses aqueous ammonia in a waste treatment system to neutralize an acidic wastewater stream containing nitric acid. The reaction of ammonia and nitric acid produces a solution of ammonium nitrate. Ammonium nitrate is reportable under the nitrate compounds category and is manufactured as a byproduct. If the ammonium nitrate is produced in a quantity that exceeds the 25,000-pound manufacturing threshold, the facility must report under the nitrate compounds category.

The aqueous ammonia is considered to be otherwise used and 10% of the total aqueous ammonia would be counted towards the 10,000-pound otherwise use threshold. Reports for releases of ammonia must also include 10% of the total aqueous ammonia from the solution of ammonium nitrate (see the qualifier for the ammonia listing).

As another example, combustion of coal or other fuel in boilers/furnaces can result in the coincidental manufacture of metal category compounds and sulfuric acid (acid aerosols), hydrochloric acid (acid aerosols), and hydrogen fluoride.

**Example 2: Typical Process and Manufacture Activities**

- ❑ Your company receives toluene, an EPCRA Section 313 chemical, from another facility, and reacts the toluene with air to form benzoic acid, which the company distributes in commerce. Your company processes toluene and manufactures and processes benzoic acid. Benzoic acid, however, is not an EPCRA Section 313 chemical and thus does not trigger reporting requirements.

- ❑ Your facility combines toluene purchased from a supplier with various materials to form paint. Your facility processes toluene.

- ❑ Your company receives a nickel compound (nickel compounds is a listed Section 313 chemical category) as a bulk solid and performs various size-reduction operations (e.g., grinding) before packaging the compound in 50-pound bags, which the company sells. Your company processes the nickel compound.

- ❑ Your company receives a prepared mixture of resin and chopped fiber to be used in the injection molding of plastic products. The resin contains a listed Section 313 chemical that becomes incorporated into the plastic, which the company distributes in commerce. Your facility processes the EPCRA Section 313 chemical.

- ❑ In the combustion of coal or oil, metal category compounds may be produced from either the parent metal or a metal compound contained in the coal or oil. If a metal undergoes a change of valence, a metal compound is considered to be manufactured. For example, during the combustion process copper in valence state zero changes to copper in valence state +2 in a compound such as copper (II) oxide (CuO). Furthermore, a metallic compound could be transformed to another metallic compound without a change in valency (e.g., copper (II) chloride ($CuCl_2$) is transformed to copper (II) oxide). The transformation to a new compound by combustion without a change in valence state is also considered to be "manufactured" for purposes of EPCRA Section 313.

**Example 3: Typical Otherwise Use Activities**

- ❑ When your facility cleans equipment with toluene, you are otherwise using toluene. Your facility also separates two components of a mixture by dissolving one component in toluene, and subsequently recovers the toluene from the process for reuse or disposal. Your facility otherwise uses toluene.

- ❑ A covered facility receives a waste containing 12,000 pounds of Chemical A, an EPCRA Section 313 chemical, from off-site. The facility treats the waste, destroying Chemical A and in the treatment process manufactures 10,500 pounds of Chemical B, another EPCRA Section 313 chemical. Chemical B is disposed on-site. Since the waste containing Chemical A was received from off-site for the purpose of waste management, the amount of Chemical A must be included in the otherwise use threshold determination for Chemical A. The otherwise use threshold is 10,000 pounds and since the amount of Chemical A exceeds this threshold, all releases and other waste management activities for Chemical A must be reported. Chemical B was manufactured in the treatment of a waste received from off-site. The facility disposed of Chemical B on-site. Since Chemical B was generated from waste received from off-site for treatment for destruction, disposal, or stabilization, the disposal of Chemical B is considered to be otherwise used. Thus, the amount of Chemical B must be considered in the otherwise used threshold determination. Thus, the reporting threshold for Chemical B has also been exceeded and all releases and other waste management activities for Chemical B must be reported.

## B.3.b. Activity Exemptions

**Otherwise Use Exemptions.** Certain otherwise uses of listed Section 313 chemicals are specifically exempted:

- ❑ Otherwise use as a structural component of the facility;
- ❑ Otherwise use in routine janitorial or facility grounds maintenance;
- ❑ Personal uses by employees or other persons;
- ❑ Otherwise use of products containing EPCRA Section 313 chemicals for the purpose of maintaining motor vehicles operated by the facility; or
- ❑ Otherwise use of EPCRA Section 313 chemicals contained in intake water (used for processing or non-contact cooling) or in intake air (used either as compressed air or for combustion).

The exemption of an EPCRA Section 313 chemical otherwise used 1) as a structural component of the facility; or 2) in routine janitorial or facility grounds maintenance; or 3) for personal use by an employee cannot be taken for activities involving process-related equipment.

**Articles Exemption.** EPCRA Section 313 chemicals contained in articles that are processed or otherwise used at a covered facility are exempt from threshold determinations and release and other waste management calculations. The exemption applies when the facility receives the article from another facility or when the facility produces the article itself. The exemption applies only to the quantity of EPCRA Section 313 chemical present in the article. If the EPCRA Section 313 chemical is manufactured (including imported), processed, or otherwise used at the covered facility other than as part of the article, in excess of an applicable threshold quantity, the facility is required to report (40 CFR Section 372.38(b)). For an EPCRA Section 313 chemical in an item to be exempt as part of the article, the item must meet all the following criteria in the Section 313 article definition; that is, it must be a manufactured item that is formed to a specific shape or design during manufacture, that has end use functions dependent in whole or in part upon its shape or design during end use, and that does not release an EPCRA Section 313 chemical under normal circumstances of processing or otherwise use of the item at the facility.

If the processing or otherwise use of all like items results in a total release of 0.5 pound or less of an EPCRA Section 313 chemical in a reporting year to any environmental media, EPA will allow this release to be rounded to zero, and the manufactured items remain exempt as articles. The 0.5-pound limit does not apply to each individual article, but applies to the sum of all releases from processing or otherwise use of all like articles. If all the releases of like articles over a reporting year are completely captured and sent for recycling/reuse on-site or off-site, the items may remain exempt as articles. Any amount that is released and is not recycled/reused will count toward the 0.5 pound per year cut-off value.

The articles exemption applies to the normal processing or otherwise use of articles. This exemption does not apply to the manufacture of the article. EPCRA Section 313 chemicals incorporated into articles produced at a facility must be factored into threshold determinations and release and waste management calculations.

If, in the course of processing or otherwise use, an item retains its initial thickness or diameter, in whole or in part, it meets the first part of the article definition described above. If the item's basic dimensional characteristics are totally altered during processing or otherwise use, the item does not meet the first part of the definition. An example of items that do not meet the definition would be items which are cold extruded, such as lead ingots which are formed into wire or rods. On the other hand, cutting a manufactured item into pieces that are recognizable as the article would not change the original dimensions as long as the diameter or the thickness of the item remained the same; the articles exemption would continue to apply. Metal wire may be bent and sheet metal may be cut, punched, stamped, or pressed without losing their article status as long as the diameter of the wire or tubing or the thickness of the sheet is not totally changed.

An important aspect of the articles exemption is what constitutes a release of an EPCRA Section 313 chemical. Any processing or otherwise use of like articles that results in a release to the environment (of more than 0.5 pounds) negates the exemption. Cutting, grinding, melting, or other processing of manufactured items could result in a release of an EPCRA Section 313 chemical during normal conditions of processing or otherwise use and therefore negate the exemption as articles. Scrap pieces that are recognizable as an article do not constitute a release.

**Example 4: Articles Exemption**

- ❑ Lead that is incorporated into a lead acid battery is processed to manufacture the battery, and therefore must be counted toward threshold determinations and release and other waste management determinations. However, the use of the lead acid battery elsewhere in the facility does not have to be counted. Disposal of the battery after its use does not constitute a "release;" thus, the battery remains an article.

- ❑ If an item used in the facility is fragmented, the item is still an article if those fragments being discarded remain identifiable as the article (e.g., recognizable pieces of a cylinder, pieces of wire). For instance, an eight-foot piece of wire is broken into two four-foot pieces of wire, without releasing any EPCRA Section 313 chemicals. Each four-foot piece is identifiable as a piece of wire; therefore, the article status for these pieces of wire remains intact.

- ❑ EPCRA Section 313 chemicals received in the form of pellets are not articles because the pellet form is simply a convenient form for further processing of the material.

***De Minimis* Exemption.** The *de minimis* exemption allows facilities to disregard certain minimal concentrations of chemicals in mixtures or other trade name products they process or otherwise use when making threshold determinations and release and other waste management calculations. The *de minimis* exemption does not apply to the manufacture of an EPCRA Section 313 chemical except if that EPCRA Section 313 chemical is manufactured as an impurity and remains in the product distributed in commerce, or if the EPCRA Section 313 chemical is imported below the appropriate *de minimis* level. The *de minimis* exemption does not apply to a byproduct manufactured coincidentally as a result of manufacturing, processing, otherwise use, or any waste management activities.

When determining whether the *de minimis* exemption applies to an EPCRA Section 313 chemical, the owner/operator should consider only the concentration of the EPCRA Section 313 chemical in mixtures and other trade name products in process streams in which the EPCRA Section 313 chemical is undergoing a reportable activity. If the EPCRA Section 313 chemical in a process stream is manufactured as an impurity, imported, processed, or otherwise used and is below the appropriate *de minimis* concentration level, then the quantity of the EPCRA Section 313 chemical in that process stream does not have to be applied to threshold determinations nor included in release or other waste management determinations. If an EPCRA Section 313 chemical in a process stream is below the appropriate *de minimis* level, all releases and other waste management activities associated with the EPCRA Section 313 chemical in that stream are exempt from EPCRA Section 313 reporting. It is possible to meet an activity (e.g., processing) threshold for an EPCRA Section 313 chemical on a facility-wide basis, but not be required to calculate releases or other waste management quantities associated with a particular process because that process involves only mixtures or other trade name products containing the EPCRA Section 313 chemical below the *de minimis* level.

Once an EPCRA Section 313 chemical concentration is at or above the appropriate *de minimis* level in the process stream, threshold determinations and release and other waste management calculations must be made, even if the chemical later falls below the *de minimis* level in the same process stream. Thus, all releases and other quantities managed as waste that occur after the *de minimis* level has been met or exceeded are subject to reporting. If an EPCRA Section 313 chemical in a mixture or other trade name product at or above *de minimis* is brought on-site, the *de minimis* exemption never applies.

*De minimis* levels for EPCRA Section 313 chemicals and chemical categories are set at concentration levels of either at 1% or 0.1%. The 0.1% *de minimis* levels are dictated by determinations made by the National Toxicology Program (NTP), Annual Report on Carcinogens, the International Agency for Research and Cancer (IARC) Monographs, or 29 CFR part 1910, subpart Z. Therefore, once a chemical's status under NTP, IARC, or 29 CFR part 1910, subpart Z indicates that the chemical is a carcinogen or potential carcinogen, the reporting facility may disregard levels of the chemical below the 0.1% *de minimis* concentration provided that the other criteria for the *de minimis* exemption are met.

*De minimis* levels for chemical categories apply to the total concentration of all chemicals in the category within a mixture, not the concentration of each individual category member within the mixture.

***De Minimis Application to the Processing or Otherwise Use of a Mixture***

The *de minimis* exemption applies only to the processing or otherwise use of an EPCRA Section 313 chemical in a mixture. Threshold determinations and release and other waste management calculations begin at the point where the chemical meets or exceeds *de minimis*. If an EPCRA Section 313 chemical is present in a mixture at a concentration below the *de minimis* level, this quantity of the substance does not have to be included for threshold determinations, release and other waste management reporting, or supplier notification requirements. The exemption will apply as long as the mixture containing *de minimis* amounts of an EPCRA Section 313 chemical never equals or goes above the *de minimis* limit. Provided below are two examples in which a manufacturing activity would qualify for the *de minimis* exemption.

***De Minimis Application in the Manufacture of the Listed Chemical in a Mixture***

The *de minimis* exemption generally does not apply to the manufacturing of an EPCRA Section 313 chemical. The *de minimis* exemption may apply to mixtures and other trade name products containing EPCRA Section 313 chemicals that are imported into the United States.

Another exception applies to EPCRA Section 313 chemicals that are coincidentally manufactured as impurities that remain in the product distributed in commerce below the *de minimis* levels. The amount remaining in the product is exempt from threshold determinations. If the chemical is separated from the final product, thereby classifying the chemical as a byproduct, it cannot qualify for the exemption. Any amount that is separated, or is separate, from the product, is considered a byproduct and is subject to threshold determinations and release and other waste management calculations. Any amount of an EPCRA Section 313 chemical that is manufactured in a wastestream must be considered toward threshold determinations and release and other waste management calculations and accounted for on Form R.

The *de minimis* exemption also does not apply to situations where the manufactured chemical is released or transferred to wastestreams and thereby diluted to below the *de minimis* level.

**Laboratory Activities Exemption**

Laboratory Activities: EPCRA Section 313 chemicals that are manufactured, processed, or otherwise used in laboratory activities at a covered facility under the direct supervision of a technically qualified individual do not have to be considered for threshold determinations and release and other waste management calculations. However, pilot plant scale and specialty chemical production do not qualify for this laboratory activities exemption, nor do the use of EPCRA Section 313 chemicals for laboratory support activities, such as the use of chemicals for equipment maintenance.

**Coal Extraction Activities Exemption**

If an EPCRA Section 313 chemical is manufactured, processed, or otherwise used in extraction by facilities in SIC code 12, a person is not required to consider the quantity of the EPCRA Section 313 chemical so manufactured, processed, or otherwise used when considering threshold determinations and release and other waste management calculations. Reclamation activities occurring simultaneously with coal extraction activities (e.g., cast blasting) are included in the exemption. However, otherwise use of ash, waste rock, or fertilizer for reclamation purposes are not considered part of extraction; non-exempt amounts of Section 313 chemicals contained in these materials must be considered toward threshold determinations and release and other waste management calculations.

**Metal Mining Overburden Exemption**

If an EPCRA Section 313 chemical that is a constituent of overburden is processed or otherwise used by facilities in SIC code 10, a person is not required to consider the quantity of the EPCRA Section 313 chemical so processed or otherwise used when considering threshold determinations and release and other waste management calculations.

For purposes of EPCRA section 313 reporting, overburden is the unconsolidated material that overlies a deposit of useful material or ore. It does not include any portion of the ore or waste rock.

**Example 5: *De Minimis* Applications to Process and Otherwise Use Scenarios**

There are many cases in which the *de minimis* "limit" is crossed or recrossed within a process or otherwise use scenario. The following examples are meant to illuminate these complex reporting scenarios.

***Increasing Concentration To or Above De Minimis Levels During Processing***

A manufacturing facility receives toluene that contains less than the *de minimis* concentration of chlorobenzene. Through distillation, the chlorobenzene content in process streams is increased over the *de minimis* concentration of 1 percent. From the point at which the chlorobenzene concentration equals 1 percent in process streams, the amount present must be factored into threshold determinations and release and other waste management estimates. The facility does not need to consider the amount of chlorobenzene in the raw material, i.e., when below *de minimis* levels, when making threshold determinations. The facility does not have to report emissions of chlorobenzene from storage tanks or any other equipment where the chlorobenzene content is less than 1 percent.

***Fluctuating Concentration During Processing***

A manufacturer produces an ink product that contains toluene, an EPCRA Section 313 chemical, below the *de minimis* level. The process used causes the percentage of toluene in the mixture to fluctuate: it rises above the *de minimis* level for a time but drops below the level as the process winds down. The facility must consider the chemical toward threshold determinations from the point at which it first equals the *de minimis* limit. Once the *de minimis* limit has been met the exemption cannot be taken.

**Example 6: Concentration Ranges Straddling the *De Minimis* Value**

❑ A facility processes 8,000,000 pounds of a mixture containing 0.25 to 1.25% manganese. Manganese is eligible for the 1% *de minimis* concentration exemption. The amount of mixture subject to reporting is the quantity containing manganese at or above the *de minimis* concentration:

(8,000,000) × (1.25% - 0.99%) ÷ (1.25% - 0.25%)

The average concentration of manganese that is not exempt (above the *de minimis)* is:

(1.25% + 1.00%) ÷ (2)

$$\left[\frac{(8{,}000{,}000) \times (1.25\% - 0.99\%)}{(1.25\% - 0.25\%)}\right] \times \left[\frac{(1.25\% + 1.00\%)}{(2)}\right] = 23{,}400 \text{ pounds}$$

Therefore, the amount of manganese that is subject to threshold determination and release and other waste management estimates is:

= 23,400 pounds manganese (which is below the processing threshold)

In this scenario, because the facility's information pertaining to manganese was available to two decimal places, 0.99 was used to determine the amount below the *de minimis* concentrations. If the information was available to one decimal place, 0.9 should be used, as in the scenario below.

❑ As in the previous example, manganese is present in a mixture, of which 8,000,000 pounds is processed. The MSDS states the mixture contains 0.2% to 1.2% manganese. The amount of mixture subject to reporting (at or above *de minimis*) is:

(8,000,000) × (1.2% - 0.9%) ÷ (1.2% - 0.2%)

The average concentration of manganese that is not exempt (at or above *de minimis*) is:

(1.2% + 1.0%) ÷ (2)

Therefore, the amount of manganese that is subject to threshold determinations and release and other waste management estimates is:

$$\left[\frac{(8{,}000{,}000) \times (1.2\% - 0.9\%)}{(1.2\% - 0.2\%)}\right] \times \left[\frac{(1.2\% + 1.0\%)}{(2)}\right] = 26{,}400 \text{ pounds}$$

= 26,400 pounds manganese (which is above the processing threshold)

**Example 7: *De Minimis* Application in the Coincidental Manufacture in a Mixture**

***Coincidental Manufacture as a Product Impurity***

Toluene-2,4-diisocyanate reacts with trace amounts of water to form trace quantities of 2,4-diaminotoluene. The resulting product contains 99 percent toluene-2,4-diisocyanate and 0.05 percent 2,4-diaminotoluene. The 2,4-diaminotoluene would not be subject to Section 313 reporting nor would supplier notification be required because the concentration of 2,4-diaminotoluene is below its *de minimis* concentration of 0.1 percent in the product. Coincidental manufacture/production refers only to production of a chemical via a chemical reaction. It would not include separation of a byproduct from a purchased mixture during a processing operation.

***Coincidental Manufacture as a Commercial Byproduct and Impurity***

Chloroform is a reaction byproduct in the production of carbon tetrachloride. It is removed by distillation to a concentration of less than 150 ppm (0.0150%) remaining in the carbon tetrachloride. The separated chloroform at 90 percent concentration is sold as a byproduct. Chloroform is subject to a 0.1% (1000 ppm) *de minimis* level. Any amount of chloroform manufactured and separated as byproduct must be included in threshold determinations because the *de minimis* exemption does not apply to manufacture of a chemical. Releases of chloroform prior to and during purification of the carbon tetrachloride should be reported. The *de minimis* level can, however, be applied to the chloroform remaining in the carbon tetrachloride as an impurity. Because the concentration of chloroform remaining in the carbon tetrachloride is below the *de minimis* level, this quantity of chloroform is exempt from threshold determinations, release and other waste management reporting, and supplier notification.

***Coincidental Manufacture as a Waste Byproduct***

A small amount of formaldehyde is manufactured as a reaction byproduct during the production of phthalic anhydride. The formaldehyde is separated from the phthalic anhydride as a waste gas and burned, leaving no formaldehyde in the phthalic anhydride. The amount of formaldehyde produced and removed must be included in threshold determinations and release and other waste management estimates even if the formaldehyde were present below the *de minimis* level in the process stream where it was manufactured or in the wastestream to which it was separated.

**Coal mining extraction activities**. Included among these are explosives for blasting operations, solvents, lubricants, and fuels for extraction related equipment maintenance and use, as well as overburden and mineral deposits. The EPCRA section 313 chemicals contained in these materials are exempt from threshold determinations and release and other waste management calculations, when processed or otherwise used during extraction activities at coal mines.

## B.4 Threshold Determinations

Section 313 reporting is required if threshold quantities are exceeded. Separate thresholds apply to the amount of the EPCRA Section 313 chemical that is manufactured, processed, or otherwise used.

You must submit a report for any EPCRA Section 313 chemical that is manufactured or processed at your facility in excess of the following threshold:

- ❑ 25,000 pounds during the course of a calendar year.

You must submit a report if the quantity of an EPCRA Section 313 chemical that is otherwise used at your facility exceeds:

- ❑ 10,000 pounds during the course of a calendar year.

## B.4.a. How to Determine if Your Facility Has Exceeded Thresholds

To determine whether your facility has exceeded a Section 313 reporting threshold, compare quantities of EPCRA Section 313 chemicals that you manufacture, process, or otherwise use to the respective thresholds for those activities. A worksheet is provided in Figure 2 to assist facilities in determining whether they exceed any of the reporting thresholds. This worksheet also provides a format for maintaining reporting facility records. Use of this worksheet is not required and the completed worksheet(s) should not accompany Form R reports submitted to EPA and the State.

Complete a separate worksheet for each EPCRA Section 313 chemical or chemical category. Base your threshold determination for EPCRA Section 313 chemicals with qualifiers only on the quantity of the EPCRA Section 313 chemical satisfying the qualifier.

Use of the worksheet is divided into three steps:

*Step 1* allows you to record the gross amount of the EPCRA Section 313 chemical or chemical category involved in activities throughout the facility. Pure forms as well as the amounts of the EPCRA Section 313 chemical or chemical category present in mixtures or other trade name products must be considered. The types of activity (i.e., manufacturing, processing, or otherwise using) for which the EPCRA Section 313 chemical is used must be identified because separate thresholds apply to each of these activities. A record of the information source(s) used should be kept. Possible information sources include purchase records, inventory data, and calculations by a process engineer. The data collected in Step 1 will be totaled for each activity to identify the overall amount of the EPCRA Section 313 chemical or chemical category manufactured (including imported), processed, or otherwise used.

*Step 2* allows you to identify uses of the EPCRA Section 313 chemical or chemical category that were included in Step 1 but are exempt under Section 313. Do not include in Step 2 exempt quantities of the EPCRA Section 313 chemical not included in the calculations in Step 1. For example, if Freon contained in the building's air conditioners was not reported in Step 1, you would not include the amount as exempt in Step 2. Step 2 is intended for use when a quantity or use of the EPCRA Section 313 chemical is exempt while other quantities require reporting. Note the type of exemption for future reference. Also identify, if applicable, the fraction or percentage of the EPCRA Section 313 chemical present that is exempt. Add the amounts in each activity to obtain a subtotal for exempted amounts of the EPCRA Section 313 chemical or chemical categories at the facility.

*Step 3* involves subtracting the result of Step 2 from the results of Step 1 for each activity. Compare this net sum to the applicable activity threshold. If the threshold is met or exceeded for any of the three activities, a facility must submit a Form R for that EPCRA Section 313 chemical or chemical category. Do not sum quantities of the EPCRA Section 313 chemical that are manufactured, processed, and otherwise used at your facility, because each of these activities requires a separate threshold determination. For example, if in a calendar year you processed 20,000 pounds of an EPCRA section 313 chemical and you otherwise used 6,000 pounds of that same chemical, your facility has not met or exceeded any applicable threshold and thus is not required to report for that chemical.

This worksheet should be retained to document your determination for reporting or not reporting, but should not be submitted with the report.

You must submit a report if you exceed any threshold for any EPCRA Section 313 chemical or chemical category. For example, if your facility processes 22,000 pounds of an EPCRA Section 313 chemical and also otherwise uses 16,000 pounds of that same EPCRA Section 313 chemical, it has exceeded the otherwise use threshold (10,000 pounds) and your facility must report even though it did not exceed the process threshold. However, in preparing your reports, you must consider all non-exempted activities and all releases and other waste management quantities of the EPCRA Section 313 chemical from your facility, not just releases and other waste management quantities from the otherwise use activity.

Also note that threshold determinations are based upon the actual amounts of an EPCRA Section 313 chemical manufactured, processed, or otherwise used over the course of the calendar year. The threshold determination may not relate to the amount of an EPCRA Section 313 chemical brought on-site during the calendar year. For example, if a stockpile of 100,000 pounds of an EPCRA Section 313 chemical is present on-site but only 20,000 pounds is applied to a process, only the 20,000 pounds processed is counted toward a threshold determination, not the entire 100,000 pounds of the stockpile.

## B.4.b. Threshold Determinations for On-Site Reuse Operations

Threshold determinations of EPCRA Section 313 chemicals that are reused at the facility are based only on the amount of the EPCRA Section 313 chemical that is added during the year, not the total volume in the system. For example, a facility operates a refrigeration unit that contains 15,000 pounds of anhydrous ammonia at the beginning of the year. The system is charged with 2,000 pounds of anhydrous ammonia during the year. The facility has therefore "otherwise used" only 2,000 pounds of the EPCRA Section 313 chemical and is not required to report (unless there are other "otherwise use" activities of ammonia, that when taken together, exceed the reporting threshold). If, however, the whole refrigeration unit was recharged with 15,000 pounds of anhydrous ammonia during the year, the facility would exceed the otherwise use threshold, and be required to report.

This does not apply to EPCRA Section 313 chemicals "recycled" or "reused" off-site and returned to a facility. Such EPCRA Section 313 chemicals returned to a facility are treated as the equivalent of newly purchased material for purposes of Section 313 threshold determinations.

## B.4.c. Threshold Determinations for Ammonia

The listing for ammonia includes the modifier "includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing". The qualifier for ammonia means that anhydrous forms of ammonia are 100 percent reportable and aqueous forms are limited to 10 percent of total aqueous ammonia. Therefore, when determining threshold quantities, 100 percent of anhydrous ammonia is included but only 10 percent of total aqueous ammonia is included. If any ammonia evaporates from aqueous ammonia solutions, 100 percent of the evaporated ammonia is included in threshold determinations.

For example, if a facility processes aqueous ammonia it has processed 100 percent of the aqueous ammonia in that solution. If the ammonia remains in solution, then 10 percent of the total aqueous ammonia is counted towards threshold. If there are any evaporative losses of anhydrous ammonia, then 100 percent of those losses must be counted towards the processing threshold. If the manufacturing, processing, or otherwise use threshold for the ammonia listing are exceeded, the facility must report 100 percent of these evaporative losses in Sections 5 and 8 of the Form R.

## B.4.d. Threshold Determinations for Chemical Categories

A number of chemical compound categories are subject to reporting. See Table II for a listing of these EPCRA Section 313 chemical categories. When reporting for one of these EPCRA Section 313 chemical categories, all individual members of a category that are manufactured, processed, or otherwise used must be counted. However, threshold determinations must be made separately for each of the three activities. Do not include in these threshold determinations for a category any chemicals that are also individually listed EPCRA Section 313 chemicals (see Table II) or individually listed EPCRA Section 313 chemicals that have been deleted from the category (e.g., a class of copper phthalocyanine compounds has been deleted from the copper compounds category). Individually listed EPCRA Section 313 chemicals are subject to their own, individual threshold determination.

### Organic Compounds

For the organic compound categories, you are required to account for the entire weight of all compounds within a specific compound category (e.g., glycol ethers) at the facility for BOTH the theshold determination and release and other waste management estimates.

### Metal-Containing Compounds

Threshold determinations for metal-containing compounds present a special case. If, for example, your facility processes several different lead compounds, base your threshold determination on the total weight of all lead compounds processed. However, if your facility processes both the "parent" metal (lead) as well as one or more lead compounds, you must make threshold determinations for both because they are separately listed EPCRA Section 313 chemicals. If your facility exceeds thresholds for both the parent metal and compounds of that same metal, EPA allows you to file one combined report (e.g., one report for lead compounds, including lead) because the release information you will report in connection with metal category compounds will be the total pounds of the parent metal released. If you file one combined report, you should put the name of the metal

compound category on the Form R. Do not put both names on the Form R.

The case of metal compounds involving more than one metal should be noted. Some metal compounds may contain more than one listed metal. For example, lead chromate is both a lead compound and a chromium compound. In such cases, if applicable thresholds are exceeded, you are required to file two separate reports, one for lead compounds and one for chromium compounds. Apply the total weight of the lead chromate to the threshold determinations for both lead compounds and chromium compounds. (Note: Only the amount of each parent metal released or otherwise managed as waste (not the amount of the compound), would be reported on the appropriate sections of both Form Rs. See B.5.)

**Nitrate Compounds (water dissociable; reportable only when in aqueous solution)**

For the category nitrate compounds (water dissociable; reportable only when in aqueous solution), the entire weight of the nitrate compound is counted towards the threshold. A nitrate compound is covered by this listing only when in water and only if dissociated. If no information is available on the identity of the type of nitrate that is manufactured processed or otherwise used, assume that the nitrate compound exists as sodium nitrate.

## B.4.e. Mixtures and Other Trade Name Products

EPCRA Section 313 chemicals contained in mixtures and other trade name products must be factored into threshold determinations and release and other waste management calculations.

If your facility processed or otherwise used mixtures or other trade name products during the calendar year, you are required to use the best information available to determine whether the components of a mixture are above the *de minimis* concentration and, therefore, must be included in threshold determinations and release and other waste management calculations. If you know that a mixture or other trade name product contains a specific EPCRA Section 313 chemical, combine the amount of the EPCRA Section 313 chemical in the mixture or other trade name product with other amounts of the same EPCRA Section 313 chemical processed or otherwise used at your facility for threshold determinations and release and other waste management calculations. If you know that a mixture contains an EPCRA Section 313 chemical but no concentration information is provided by the supplier, you do not have to consider the amount of the EPCRA Section 313 chemical present in that mixture for purposes of threshold determinations and release and other waste management calculations.

Observe the following guidelines in estimating concentrations of EPCRA Section 313 chemicals in mixtures when only limited information is available:

- ❑ If you know the lower and upper bound concentrations of an EPCRA Section 313 chemical in a mixture, use the midpoint of these two concentrations for threshold determinations.
- ❑ If you know only the lower bound concentration, you should subtract out the percentages of any other known components to determine a reasonable upper bound concentration, and then determine a midpoint.
- ❑ If you have no information other than the lower bound concentration, calculate a midpoint assuming an upper bound concentration of 100 percent.

**Figure 2. EPCRA Section 313 Reporting Threshold Worksheet**

Facility Name: _____
EPCRA Section 313 Chemical or Chemical Category: _____
CAS Number: _____
Reporting Year: _____

Date Worksheet Prepared: _____
Prepared By: _____

Amounts of the EPCRA Section 313 chemical or chemical category manufactured, processed, or otherwise used.

| Mixture Name or Other Identifier | Information Source | Total Weight (lb) | Percent EPCRA Section 313 Chemical by Weight | EPCRA Section 313 Chemical Weight (lb) | Amount of the EPCRA Section 313 Chemical or Chemical Category by Activity (lb.): | | |
|---|---|---|---|---|---|---|---|
| | | | | | Manufactured | Processed | Otherwise Used |
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| Subtotal: | | | | | (A)_____lb | (B)_____lb | (C)_____lb |

Exempt quantity of the EPCRA Section 313 chemical or chemical category that should be excluded.

| Mixture Name as Listed Above | Applicable Exemption (*de minimis*, article, facility, activity) | Fraction or Percent Exempt (if Applicable) | Amount of the EPCRA Section 313 Chemical Exempt from Above (lb): | | |
|---|---|---|---|---|---|
| | | | Manufactured | Processed | Otherwise Used |
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| Subtotal: | | | ($A_1$)_____lb | ($B_1$)_____lb | ($C_1$)_____lb |
| Amount subject to threshold: | | | (A-$A_1$)_____ lb | (B-$B_1$)_____ lb | (C-$C_1$)_____ lb |
| Compare to threshold for EPCRA Section 313 reporting. | | | 25,000 lb | 25,000 lb | 10,000 lb |

If any threshold is exceeded, reporting is required for all activities. Do not submit this worksheet with Form R or Form A; retain it for your records.

- ❑ If you only know the upper bound concentration, you must use it for threshold determinations.

- ❑ In cases where you only have a concentration range available, you should use the midpoint of the range extremes.

## B.5 Release and Other Waste Management Determinations for Metals, Metal Category Compounds, and Nitrate Compounds

**Metal Compounds**

Although the complete weight of the metal compound must be used for threshold determinations for the metal category compounds, for release and other waste management determinations, only the parent metal portion of the metal category compound must be considered. Remember that for metal compounds that consist of more than one metal, release and other waste management reporting must be made for each metal, provided that the appropriate thresholds have been exceeded.

**Metals and Metal Category Compounds**

As stated above, for compounds within the metal compound categories only the metal portion of the metal category compound should be considered in determining release and other waste management quantities for the metal category compounds. Therefore, if thresholds are separately exceeded for the "parent" metal and its compounds, EPA allows you to file a combined Form R for the "parent" metal and its category compounds. This Form R would contain all of the release and other waste management information for both the "parent" metal and metal portion of the related metal category compounds. For example, you exceed thresholds for chromium. You also exceed thresholds for chromium compounds. Instead of filing two Form Rs you can file one combined Form R. This Form R would contain information on quantities of chromium released or otherwise managed as waste and the quantities of the chromium portion of the chromium compounds released or otherwise managed as waste. When filing one combined Form R for an EPCRA Section 313 metal and metal compound category, facilities should identify the chemical reported as the metal compound category name and code in Section 1 of the Form R. Note that this does not apply to the Form A. See the section in these instructions on the Form A.

**Nitrate Compounds (water dissociable; reportable only in aqueous solution)**

Although the complete weight of the nitrate compound must be used for threshold determinations for the nitrate compounds category, for release and other waste management determinations only the nitrate portion of the compound must be considered.

**Example 9: Mixtures and Other Trade Name Products**

**Scenario #1:** Your facility otherwise uses 12,000 pounds of an industrial solvent (Solvent X) for equipment cleaning. The Material Safety Data Sheet (MSDS) for the solvent indicates that it contains at least 50 percent methyl ethyl ketone (MEK), an EPCRA Section 313 chemical; however, it also states that the solvent contains 20 percent non-hazardous surfactants. This is the only MEK-containing mixture used at the facility.

Follow these steps to determine if the quantity of the EPCRA Section 313 chemical in solvent X exceeds the threshold for otherwise use.

1) Determine a reasonable maximum concentration for the EPCRA Section 313 chemical by subtracting out the non-hazardous surfactants (i.e., 100%–20% = 80%).

2) Determine the midpoint between the known minimum (50%) and the reasonable maximum calculated above (i.e., (80% + 50%)/2 = 65%).

3) Multiply total weight of Solvent X otherwise used by 65 percent (0.65).

   12,000 pounds x 0.65 = 7,800 pounds

4) Because the total amount of MEK otherwise used at the facility was less than the 10,000-pound otherwise use threshold, the facility is not required to file a Form R for MEK.

**Scenario #2:** Your facility otherwise used 15,000 pounds of Solvent Y to clean printed circuit boards. The MSDS for the solvent lists only that Solvent Y contains at least 80 percent of an EPCRA Section 313 chemical that is only identified as chlorinated hydrocarbons.

Follow these steps to determine if the quantity of the EPCRA Section 313 chemical in the solvent exceeds the threshold for otherwise use.

1) Because the specific chemical is unknown, the Form R will be filed for "chlorinated hydrocarbons." This name will be entered into Part II, Section 2.1, "Mixture Component Identity." (Note: Because your supplier is claiming the EPCRA Section 313 chemical identity a trade secret, you do not have to file substantiation forms.)

2) The upper bound limit is assumed to be 100 percent and the lower bound limit is known to be 80 percent. Using this information, the specific concentration is estimated to be 90 percent (i.e., the mid-point between upper and lower limits).

   (100%+80%)/2 = 90%

3) The total weight of Solvent Y is multiplied by 90 percent (0.90) when calculating for thresholds.

   15,000 x 0.90 = 13,500

4) Because the total amount of chlorinated hydrocarbons exceeds the 10,000-pound otherwise use threshold, you must file a Form R for this chemical.

# C. Instructions for Completing EPA Form R

## Part I. Facility Identification Information

### Section 1. Reporting Year

This is the calendar year to which the reported information applies, not the year in which you are submitting the report. Information for the 1999 reporting year must be submitted on or before July 1, 2000.

### Section 2. Trade Secret Information

**2.1 Are you claiming the EPCRA Section 313 chemical identified on page 2 trade secret?**

Answer this question only after you have completed the rest of the report. The specific identity of the EPCRA Section 313 chemical being reported in Part II, Section 1, may be designated as a trade secret. If you are making a trade secret claim, mark "yes" and proceed to Section 2.2. Only check "yes" if you manufacture, process, or otherwise use the EPCRA Section 313 chemical whose identity is a trade secret. (See page 2 of these instructions for specific information on trade secrecy claims.) If you checked "no," proceed to Section 3; do not answer Section 2.2.

**2.2 If "yes" in 2.1, is this copy sanitized or unsanitized?**

Answer this question only after you have completed the rest of the report. Check "sanitized" if this copy of the report is the public version that does not contain the EPCRA Section 313 chemical identity but does contain a generic name in its place, and you have claimed the EPCRA Section 313 chemical identity trade secret in Part I, Section 2.1. Otherwise, check "unsanitized."

### Section 3. Certification

The certification statement must be signed by the owner or operator or a senior official with management responsibility for the person (or persons) completing the form. The owner, operator, or official must certify the accuracy and completeness of the information reported on the form by signing and dating the certification statement. Each report must contain an original signature. Print or type in the space provided the name and title of the person who signs the statement. This certification statement applies to all the information supplied on the form and should be signed only after the form has been completed.

### Section 4. Facility Identification

**4.1 Facility Name, Location, and TRI Facility Identification Number**

Enter the name of your facility (plant site name or appropriate facility designation), street address, mailing address, city, county, state, and zip code in the space provided. Do not use a post office box number as the street address. The street address provided should be the location where the EPCRA Section 313 chemicals are manufactured, processed, or otherwise used. If your mailing address and street address are the same, enter NA in the space for the mailing address.

If your facility is not in a county, put the name of your city, district (for example District of Columbia), or parish (if you are in Louisiana) in the county block of the Form R and Form A as well as in the County field of the ATRS software. "NA" or "None" are not acceptable entries.

If you have submitted a Form R for previous reporting years, a TRI Facility Identification Number has been assigned to your facility. The TRI Facility Identification Number appears (with other facility-specific information) on a pre-printed page 1 of the Form R that is attached to the cover of this Toxic Chemical Release Inventory Instructions for 1999. Please do not destroy this page 1. When completing your Form R reports for 1999, you may use this pre-printed page 1 instead of filling out a new page one.

If your pre-printed page 1 is missing information required by Form R, insert that information in the appropriate box in Part I, Section 4.1. For example, if your pre-printed page 1 contains your street address and not your mailing address, enter your mailing address in the space provided. If you receive a pre-printed page 1 which contains incorrect information, you may edit the page.

If you do not have a pre-printed page 1, but know your TRI Facility Identification Number, complete Section 4. If you do not know your TRI Facility Identification Number, contact the EPCRA Hotline (see page 4). If your facility has moved, do not enter your TRI facility identification number, enter "New Facility."

Enter "New Facility" in the space for the TRI Facility Identification number if this is your first submission of a Form R.

### 4.2 Full or Partial Facility Indication

A covered facility must report all releases and other waste management activities and source reduction activities of an EPCRA Section 313 chemical if the facility meets a reporting threshold for that EPCRA Section 313 chemical. However, if the facility is composed of several distinct establishments, EPA allows these establishments to submit separate reports for the EPCRA Section 313 chemical as long as all releases and other waste management activities of the EPCRA Section 313 chemical from the entire facility are accounted for. Indicate in Section 4.2 whether your report is for the entire covered facility as a whole or for part of a covered facility.

Section 313 requires reports by "facilities," which are defined as "all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person."

The SIC code system defines business "establishments" as "distinct and separate economic activities [that] are performed at a single physical location." Under section 372.30(c) of the reporting rule, you may submit a separate Form R for each establishment, or for groups of establishments in your facility, provided all releases and other waste management activities and source reduction activities involving the EPCRA Section 313 chemical from the entire facility are reported. This allows you the option of reporting separately on the activities involving an EPCRA Section 313 chemical at each establishment, or group of establishments (e.g., part of a covered facility), rather than submitting a single Form R for that EPCRA Section 313 chemical for the entire facility. However, if an establishment or group of establishments does not manufacture, process, or otherwise use or release or otherwise manage as waste an EPCRA Section 313 chemical, you do not have to submit a report for that establishment or group of establishments for that particular chemical. (See also Section B.2a of these instructions.)

### 4.3 Technical Contact

Enter the name and telephone number (including area code) of a technical representative whom EPA or State officials may contact for clarification of the information reported on Form R. This contact person does not have to be the same person who prepares the report or signs the certification statement and does not necessarily need to be someone at the location of the reporting facility. However, this person must be familiar with the details of the report so that he or she can answer questions about the information provided.

### 4.4 Public Contact

Enter the name and telephone number (including area code) of a person who can respond to questions from the public about the report. If you choose to designate the same person as both the technical and the public contact, you may enter "Same as Section 4.3" in this space. This contact person does not have to be the same person who prepares the report or signs the certification statement and does not necessarily need to be someone at the location of the reporting facility. If this space is left blank, the technical contact will be listed as the public contact in the TRI database.

### 4.5 Standard Industrial Classification (SIC) Code

Enter the appropriate 4-digit primary Standard Industrial Classification (SIC) Code for your facility. Table I lists the SIC codes within 10 (except 1011, 1081, and 1094), 12 (except 1241), 20–39, 4911 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4953 (limited to facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 *et seq.*), 5169, 5171, and 7389 (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis). If the report covers more than one establishment, enter the primary 4-digit SIC code for each establishment starting with the primary SIC code for the entire facility. You are required to enter SIC codes only for those establishments within the facility that fall within SIC codes 10 (except 1011, 1081, and 1094), 12 (except 1241), 20–39, 4911 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4953 (limited to facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 *et seq.*), 5169, 5171, and 7389 (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis). If you do not know your SIC code, consult the 1987 SIC Manual.

The North American Industry Classification System (NAICS) is a new economic classification system that will replace the 1987 SIC code system. EPA will address the

SIC code change, as it relates to EPCRA, in an upcoming Federal Register notice. This upcoming change does NOT affect the 1999 EPCRA Section 313 reporting.

### 4.6 Latitude and Longitude

Enter the latitudinal and longitudinal coordinates of your facility. Sources of these data include EPA permits (e.g., NPDES permits), county property records, facility blueprints, and site plans. Instructions on how to determine these coordinates can be found in Appendix E. Enter only numerical data. Do not preface numbers with letters such as N or W to denote the hemisphere.

Latitude and longitude coordinates of your facility are very important for pinpointing the location of reporting facilities and are required elements on the Form R. EPA encourages facilities to make the best possible measurements when determining latitude and longitude. As with any other data field, missing, suspect, or incorrect data may generate a Notice of Technical Error to be issued to the facility. (See Appendix C: Common Errors in Completing Form R Reports and Making Data Available).

### 4.7 Dun & Bradstreet Number

Enter the nine-digit number assigned by Dun & Bradstreet (D & B) for your facility or each establishment within your facility. These numbers code the facility for financial purposes. This number may be available from your facility's treasurer or financial officer. You can also obtain the numbers from your local Dun & Bradstreet office (check the telephone book White Pages). If a facility does not subscribe to the D & B service, a "support number" can be obtained from the D & B center located in Allentown, Pennsylvania, at (610) 882-7748 (8:30 AM to 8:00 PM, Eastern Time). If none of your establishments has been assigned a D & B number, enter not applicable, NA, in box (a). If only some of your establishments have been assigned D & B numbers, enter those numbers in Part I, section 4.7.

### 4.8 EPA Identification Number

The EPA I.D. Number is a 12-character number assigned to facilities covered by hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA). Facilities not covered by RCRA are not likely to have an assigned I.D. Number. If your facility is not required to have an I.D. Number, enter not applicable, NA, in box (a). If your facility has been assigned EPA Identification Numbers, you must enter those numbers in the spaces provided in Section 4.8.

### 4.9 NPDES Permit Number

Enter the numbers of any permits your facility holds under the National Pollutant Discharge Elimination System (NPDES) even if the permit(s) do not pertain to the EPCRA Section 313 chemical being reported. This nine-character permit number is assigned to your facility by EPA or the State under the authority of the Clean Water Act. If your facility does not have a permit, enter not applicable, NA, in Section 4.9a.

### 4.10 Underground Injection Well Code (UIC) Identification Number

If your facility has a permit to inject a waste containing the EPCRA Section 313 chemical into Class 1 deep wells, enter the 12-digit Underground Injection Well Code (UIC) identification number assigned by EPA or by the State under the authority of the Safe Drinking Water Act. If your facility does not hold such a permit(s), enter not applicable, NA, in Section 4.10a. You are only required to provide the UIC number for wells that receive the EPCRA Section 313 chemical being reported.

## Section 5. Parent Company Information

You must provide information on your parent company. For purposes of Form R, a parent company is defined as the highest level company, located in the United States, that directly owns at least 50 percent of the voting stock of your company. If your facility is owned by a foreign entity, enter not applicable, NA, in this space. Corporate names should be treated as parent company names for companies with multiple facility sites. For example, the Bestchem Corporation is not owned or controlled by any other corporation but has sites throughout the country whose names begin with Bestchem. In this case, Bestchem Corporation would be listed as the parent company. Note that a facility that is a 50:50 joint venture is its own parent company.

### 5.1 Name of Parent Company

Enter the name of the corporation or other business entity that is your ultimate U.S. parent company. If your facility has no parent company, check the NA box.

### 5.2 Parent Company's Dun & Bradstreet Number

Enter the D & B number for your ultimate U.S. parent company, if applicable. The number may be obtained from the treasurer or financial officer of the company. If your parent company does not have a D & B number, check the NA box.

# Part II. Chemical Specific Information

In Part II, you are to report on:

- ❑ The EPCRA Section 313 chemical being reported;
- ❑ The general uses and activities involving the EPCRA Section 313 chemical at your facility;
- ❑ On-site releases of the EPCRA Section 313 chemical from the facility to air, water, and land;
- ❑ Quantities of the EPCRA Section 313 chemical transferred to off-site locations;
- ❑ Information for on-site and off-site disposal, treatment, energy recovery, and recycling of the EPCRA Section 313 chemical; and
- ❑ Source reduction activities.

## Section 1. EPCRA Section 313 Chemical Identity

### 1.1 CAS Number

Enter the Chemical Abstracts Service (CAS) registry number in Section 1.1 exactly as it appears in Table II of these instructions for the chemical being reported. CAS numbers are cross-referenced with an alphabetical list of chemical names in Table II. If you are reporting one of the EPCRA Section 313 chemical categories in Table II (e.g., chromium compounds), enter the applicable category code in the CAS number space. EPCRA Section 313 chemical category codes are listed below and can also be found in Table II, c. Chemical Categories.

EPCRA Section 313 Chemical Category Codes

| | |
|---|---|
| N010 | Antimony compounds |
| N020 | Arsenic compounds |
| N040 | Barium compounds |
| N050 | Beryllium compounds |
| N078 | Cadmium compounds |
| N084 | Chlorophenols |
| N090 | Chromium compounds |
| N096 | Cobalt compounds |
| N100 | Copper compounds |
| N106 | Cyanide compounds |
| N120 | Diisocyanates |
| N171 | Ethylenebisdithiocarbamic acid, salts and esters (EBDCs) |
| N230 | Certain glycol ethers |
| N420 | Lead compounds |
| N450 | Manganese compounds |
| N458 | Mercury compounds |
| N495 | Nickel compounds |
| N503 | Nicotine and salts |
| N511 | Nitrate compounds (water dissociable, reportable only in aqueous solution) |
| N575 | Polybrominated biphenyls (PBBs) |
| N583 | Polychlorinated alkanes (C10 to C13) |
| N590 | Polycyclic aromatic compounds (PACs) |
| N725 | Selenium compounds |
| N740 | Silver compounds |
| N746 | Strychnine and salts |
| N760 | Thallium compounds |
| N874 | Warfarin and Salts |
| N982 | Zinc compounds |

If you are making a trade secret claim, you must report the CAS number or category code on your unsanitized Form R and unsanitized substantiation form. Do not include the CAS number or category code on your sanitized Form R or sanitized substantiation form.

**Example 10: Mixture Containing Unidentified EPCRA Section 313 Chemical**

Your facility uses 20,000 pounds of a solvent that your supplier has told you contains 80 percent "chlorinated aromatic," their generic name for an EPCRA Section 313 chemical subject to reporting under Section 313. You, therefore, know that you have used 16,000 pounds of some EPCRA Section 313 chemical and that exceeds the "otherwise use" threshold. You would file a Form R and enter the name "chlorinated aromatic" in the space provided in Part II, Section 2.

### 1.2 EPCRA Section 313 Chemical or Chemical Category Name

Enter the name of the EPCRA Section 313 chemical or chemical category exactly as it appears in Table II. If the EPCRA Section 313 chemical name is followed by a synonym in parentheses, report the chemical by the name that directly follows the CAS number (i.e., not the synonym). If the EPCRA Section 313 chemical identity is actually a product trade name (e.g., dicofol), the 9th *Collective Index* name is listed below it in brackets. You may report either name in this case.

**Do not** list the name of a chemical that does not appear in Table II, such as individual members of a reportable EPCRA Section 313 chemical category. For example, if you use silver nitrate, **do not** report silver nitrate with its CAS number. Report this chemical as "silver compounds" with its category code, N740.

If you are making a trade secret claim, you must report the specific EPCRA Section 313 chemical identity on your unsanitized Form R and unsanitized substantiation form. Do not report the name of the EPCRA Section 313 chemical on your sanitized Form R or sanitized substantiation form. Include a generic name in Part II, Section 1.3 of your sanitized Form R report.

EPA requests that the EPCRA Section 313 chemical, chemical category, or generic name also be placed in the box marked "Toxic Chemical, Category, or Generic Name" in the upper right-hand corner on all pages of Form R. While this space is not a required data element, providing this information will help you in preparing a complete Form R report.

### 1.3 Generic Chemical Name

Complete Section 1.3 only if you are claiming the specific EPCRA Section 313 chemical identity of the EPCRA Section 313 chemical as a trade secret and have marked the trade secret block in Part I, Section 2.1 on page 1 of Form R. Enter a generic chemical name that is descriptive of the chemical structure. You must limit the generic name to seventy characters (e.g., numbers, letters, spaces, punctuation) or less. Do not enter mixture names in Section 1.3; see Section 2 below.

In-house plant codes and other substitute names that are not structurally descriptive of the EPCRA Section 313 chemical identity being withheld as a trade secret are not acceptable as a generic name. The generic name must appear on both sanitized and unsanitized Form Rs, and the name must be the same as that used on your substantiation forms.

## Section 2. Mixture Component Identity

Do not complete this section if you have completed Section 1 of Part II. Report the generic name provided to you by your supplier in this section if your supplier is claiming the chemical identity proprietary or trade secret. Do not answer "yes" in Part I, Section 2.1 on page 1 of the form if you complete this section. You do not need to supply trade secret substantiation forms for this EPCRA Section 313 chemical because it is your supplier who is claiming the chemical identity a trade secret.

### 2.1 Generic Chemical Name Provided by Supplier

Enter the generic chemical name in this section only if the following three conditions apply:

1. You determine that the mixture contains an EPCRA Section 313 chemical but the only identity you have for that chemical is a generic name;

2. You know either the specific concentration of that EPCRA Section 313 chemical component or a maximum or average concentration level; and

3. You multiply the concentration level by the total annual amount of the whole mixture processed or otherwise used and determine that you meet the process or otherwise use threshold for that single, generically identified mixture component.

## Section 3. Activities and Uses of the EPCRA Section 313 Chemical at the Facility

Indicate whether the EPCRA Section 313 chemical is manufactured (including imported), processed, or otherwise used at the facility and the general nature of such activities and uses at the facility during the calendar year (see figure 3). You are not required to report on Form R the quantity manufactured, processed or otherwise used. Report activities that take place only at your facility, not activities that take place at other facilities involving your products. You must check all the boxes in this section that apply. Refer to the definitions of "manufacture," "process," and "otherwise use" in the general information section of these instructions or Part 40, Section 372.3 of the *Code of Federal Regulations* for additional explanations.

### 3.1 Manufacture the EPCRA Section 313 Chemical

Persons who manufacture (including import) the EPCRA Section 313 chemical must check at least one of the following:

a. ***Produce*** – The EPCRA Section 313 chemical is produced at the facility.

b. ***Import*** – The EPCRA Section 313 chemical is imported by the facility into the Customs Territory of the United States. (See Section B.3.a of these instructions for further clarification of import.)

And check at least one of the following:

c. ***For on-site use/processing*** – The EPCRA Section 313 chemical is produced or imported and then further processed or otherwise used at the same

facility. If you check this block, you must also check at least one item in Part II, Section 3.2 or 3.3.

d. ***For sale/distribution*** – The EPCRA Section 313 chemical is produced or imported specifically for sale or distribution outside the manufacturing facility.

e. ***As a byproduct*** – The EPCRA Section 313 chemical is produced coincidentally during the manufacture, processing, or otherwise use of another chemical substance or mixture and, following its production, is separated from that other chemical substance or mixture. EPCRA Section 313 chemicals produced as a result of waste management are also considered byproducts.

f. ***As an impurity*** – The EPCRA Section 313 chemical is produced coincidentally as a result of the manufacture, processing, or otherwise use of another chemical but is not separated and remains primarily in the mixture or other trade name product with that other chemical.

In summary, if you are a manufacturer of the EPCRA Section 313 chemical, you must check (a) and/or (b), and at least one of (c), (d), (e), and (f) in Section 3.1.

**3.2 Process the EPCRA Section 313 Chemical (incorporative activities)**

a. ***As a reactant*** – A natural or synthetic EPCRA Section 313 chemical is used in chemical reactions for the manufacture of another chemical substance or of a product. Includes but is not limited to, feedstocks, raw materials, intermediates, and initiators.

b. ***As a formulation component*** – An EPCRA Section 313 chemical is added to a product (or product mixture) prior to further distribution of the product that acts as a performance enhancer during use of the product. Examples of EPCRA Section 313 chemicals used in this capacity include, but are not limited to, additives, dyes, reaction diluents, initiators, solvents, inhibitors, emulsifiers, surfactants, lubricants, flame retardants, and rheological modifiers.

c. ***As an article component*** – An EPCRA Section 313 chemical becomes an integral component of an article distributed for industrial, trade, or consumer use. One example is the pigment components of paint applied to a chair that is sold.

d. ***Repackaging*** – This consists of processing or preparation of an EPCRA Section 313 chemical (or product mixture) for distribution in commerce in a different form, state, or quantity. This includes, but is not limited to, the transfer of material from a bulk container, such as a tank truck to smaller containers such as cans or bottles.

**Example 11: Activities and Uses of EPCRA Section 313 Chemicals**

In the example below, it is assumed that the threshold quantities for manufacture, process, or otherwise use (25,000 pounds, 25,000 pounds, and 10,000 pounds, respectively) have been exceeded and the reporting of EPCRA Section 313 chemicals is therefore required.

Your facility manufactures diazomethane. Fifty percent is sold as a product. The remaining 50 percent is reacted with alpha-naphthylamine, forming N-methyl-alpha-naphthylamine and also producing nitrogen gas.

- ☐ Your company manufactures diazomethane, an EPCRA Section 313 chemical, both for sale/distribution as a commercial product and for on-site use/processing as a feedstock in the N-methyl-alpha-naphthyl-amine production process. Because the diazomethane is a reactant, it is also processed. See Figure 3 for how this information would be reported in Part II, Section 3 of Form R.

- ☐ Your facility also processes alpha-naphthylamine, as a reactant to produce N-methyl-alpha-naphthylamine, a chemical not on the Section 313 list.

**3.3 Otherwise Use the EPCRA Section 313 Chemical (non-incorporative activities)**

a. ***As a chemical processing aid*** – An EPCRA Section 313 chemical that is added to a reaction mixture to aid in the manufacture or synthesis of another chemical substance but is not intended to remain in or become part of the product or product mixture is otherwise used as chemical processing aid. Examples of such EPCRA Section 313 chemicals include, but are not limited to, process solvents,

Figure 3

**SECTION 1. TOXIC CHEMICAL IDENTITY** (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)<br>334-88-3 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)<br>Diazomethane |
| 1.3 | Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic name must be structurally descriptive.) |

**SECTION 2. MIXTURE COMPONENT IDENTITY** (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |

**SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY**
(Important: CHECK ALL THAT APPLY.)

| 3.1 Manufacture the toxic chemical: | 3.2 Process the toxic chemical: | 3.3 Otherwise use the toxic chemical: |
|---|---|---|
| ☑ a. Produce ☐ b. Import | | |
| If produce or import: | | |
| ☑ c. For on-site use/processing | ☑ a. As a reactant | a. ☐ As a chemical processing aid |
| ☑ d. For sale/distribution | ☐ b. As a formulation component | b. ☐ As a manufacturing aid |
| ☐ e. As a byproduct | ☐ c. As an article component | c. ☐ Ancillary or other use |
| ☐ f. As an impurity | ☐ d. Repackaging | |

catalysts, inhibitors, initiators, reaction terminators, and solution buffers.

b. *As a manufacturing aid* — An EPCRA Section 313 chemical that aids the manufacturing process but does not become part of the resulting product and is not added to the reaction mixture during the manufacture or synthesis of another chemical substance is otherwise used as a manufacturing aid. Examples include, but are not limited to, process lubricants, metalworking fluids, coolants, refrigerants, and hydraulic fluids.

c. *Ancillary or other use* — An EPCRA Section 313 chemical is used at a facility for purposes other than aiding chemical processing or manufacturing as described above is otherwise used as ancillary or other use. Examples include, but are not limited to, cleaners, degreasers, lubricants, fuels, EPCRA Section 313 chemicals used for treating wastes, and EPCRA Section 313 chemicals used to treat water at the facility.

## Section 4. Maximum Amount of the EPCRA Section 313 Chemical On-site at Any Time During the Calendar Year

For data element 4.1 of Part II, insert the code (see codes below) that indicates the maximum quantity of the EPCRA Section 313 chemical (e.g., in storage tanks, process vessels, on-site shipping containers, or in waste) at your facility at any time during the calendar year. If the EPCRA Section 313 chemical was present at several

locations within your facility, use the maximum total amount present at the entire facility at any one time.

**Weight Range in Pounds**

| Range Code | From... | To.... |
|---|---|---|
| 01 | 0 | 99 |
| 02 | 100 | 999 |
| 03 | 1,000 | 9,999 |
| 04 | 10,000 | 99,999 |
| 05 | 100,000 | 999,999 |
| 06 | 1,000,000 | 9,999,999 |
| 07 | 10,000,000 | 49,999,999 |
| 08 | 50,000,000 | 99,999,999 |
| 09 | 100,000,000 | 499,999,999 |
| 10 | 500,000,000 | 999,999,999 |
| 11 | 1 billion | more than 1 billion |

If the EPCRA Section 313 chemical present at your facility was part of a mixture or other trade name product, determine the maximum quantity of the EPCRA Section 313 chemical present at the facility by calculating the weight percent of the EPCRA Section 313 chemical only.

Do not include the weight of the entire mixture or other trade name product. This data may be found in the Tier II form your facility may have prepared under Section 312 of EPCRA. See Part 40, Section 372.30(b) of the *Code of Federal Regulations* for further information on how to calculate the weight of the EPCRA Section 313 chemical in the mixture or other trade name product. For EPCRA Section 313 chemical categories (e.g., nickel compounds), include all chemical compounds in the category when calculating the maximum amount, using the entire weight of each compound.

## Section 5. Quantity of the EPCRA Section 313 Chemical Entering Each Environmental Medium On-site

In Section 5, you must account for the total aggregate on-site releases of the EPCRA Section 313 chemical to the environment from your facility for the calendar year.

Do not enter the values in Section 5 in gallons, tons, liters, or any measure other than pounds. You must also enter the values as whole numbers. Numbers following a decimal point are not acceptable.

On-site releases to the environment include emissions to the air, discharges to surface waters, and releases to land and underground injection wells. If you have no releases to a particular media (e.g., stack air), you must check the "NA" box or enter zero; **do not** leave any part of Section 5 blank.

You are not required to count as a release, quantities of an EPCRA Section 313 chemical that are lost due to natural weathering or corrosion, normal/natural degradation of a product, or normal migration of an EPCRA Section 313 chemical from a product. For example, amounts of an EPCRA Section 313 chemical that migrate from plastic products in storage do not have to be counted in estimates of releases of that EPCRA Section 313 chemical from the facility.

All releases of the EPCRA Section 313 chemical to the air must be classified as either point or non-point emissions, and included in the total quantity reported for these releases in Sections 5.1 and 5.2. Instructions for columns A, B, and C follow the discussions of Sections 5.1 through 5.5.

### 5.1 Fugitive or Non-Point Air Emissions

Report the total of all releases of the EPCRA Section 313 chemical to the air that are not released through stacks, vents, ducts, pipes, or any other confined air stream. You must include (1) fugitive equipment leaks from valves, pump seals, flanges, compressors, sampling connections, open-ended lines, etc.; (2) evaporative losses from surface impoundments and spills; (3) releases from building ventilation systems; and (4) any other fugitive or non-point air emissions. Engineering estimates and mass balance calculations (using purchase records, inventories, engineering knowledge or process specifications of the quantity of the EPCRA Section 313 chemical entering product, hazardous waste manifests, or monitoring records) may be useful in estimating fugitive emissions.

### 5.2 Stack or Point Air Emissions

Report the total of all releases of the EPCRA Section 313 chemical to the air that occur through stacks, confined vents, ducts, pipes, or other confined air streams. You must include storage tank emissions. Air releases from air pollution control equipment would generally fall in this category. Monitoring data, engineering estimates, and mass balance calculations may help you to complete this section.

### 5.3 Discharges to Receiving Streams or Water Bodies

In Section 5.3 you are to enter all the names of the streams or water bodies to which your facility directly discharges the EPCRA Section 313 chemical on which you are reporting. A total of three spaces is provided on page 2 of Form R. Enter the name of each receiving stream or surface water body to which the EPCRA Section 313 chemical being reported is directly discharged. Report the name of the receiving stream or water body as it appears on the NPDES permit for the facility. If the stream is not covered by a permit, enter the name of the off-site stream or water body by which it is publicly known. Do not list a series of streams through which the EPCRA Section 313 chemical flows. Be sure to include all the receiving streams or water bodies that receive stormwater runoff from your facility. Do not enter names of streams to which off-site treatment plants discharge. Enter "NA" in Section 5.3.1. if you do not discharge the EPCRA Section 313 chemical to surface water bodies.

Enter the total annual amount of the EPCRA Section 313 chemical released from all discharge points at the facility to each receiving stream or water body. Include process outfalls such as pipes and open trenches, releases from on-site wastewater treatment systems, and the contribution from stormwater runoff, if applicable (see instructions for column C below). Do not include discharges to a POTW or other off-site wastewater treatment facilities in this section. These off-site transfers must be reported in Part II, Section 6 of Form R. Wastewater analyses and flowmeter data may provide the quantities you will need to complete this section.

Discharges of listed acids (e.g., hydrogen fluoride, nitric acid, and phosphoric acid) may be reported as zero if the discharges have been neutralized to pH 6 or above. If wastewater containing a listed acid is discharged below pH 6, then releases of the acid must be reported. In this case, pH measurements may be used to estimate the amount of mineral acid released.

#### 5.4.1 Underground Injection On-Site to Class I Wells

Enter the total amount of the EPCRA Section 313 chemical that was injected into Class I wells at the facility. Chemical analyses, injection rate meters, and RCRA Hazardous Waste Generator Reports are good sources for obtaining data that will be useful in completing this section. Check the Not Applicable "NA" box in Section 5.4.1 if you do not inject the reported EPCRA Section 313 chemical into Class I underground wells.

#### 5.4.2 Underground Injection On-site to Class II-V Wells

Enter the total amount of the EPCRA Section 313 chemical that was injected into wells at the facility other than Class I wells. Chemical analyses and injection rate meters are good sources for obtaining data that will be useful in completing this section. Check the Not Applicable "NA" box in Section 5.4.2 if you do not inject the reported EPCRA Section 313 chemical into Class II-V underground wells.

### 5.5 Disposal to Land On-site

Five predefined subcategories for reporting quantities released to land within the boundaries of the facility are provided. Do not report land disposal at off-site locations in this section. Accident histories and spill records may be useful (e.g., release notification reports required under Section 304 of EPCRA and accident histories required under Section 112(r)(7)(B)(ii) of the Clean Air Act).

**5.5.1A RCRA Subtitle C landfills** – Enter the total amount of the EPCRA Section 313 chemical that was placed in RCRA Subtitle C landfills. Leaks from landfills need not be reported as a release because the amount of the EPCRA Section 313 chemical has already been reported as a release.

**5.5.1B Other landfills** – Enter the total amount of the EPCRA Section 313 chemical that was placed in landfills other than RCRA Subtitle C landfills. Leaks from landfills need not be reported as a release because the amount of the EPCRA Section 313 chemical has already been reported as a release.

**5.5.2 Land treatment/application farming** – Land treatment is a disposal method in which a waste containing an EPCRA Section 313 chemical is applied onto or incorporated into soil. While this disposal method is considered a release to land, any volatilization of EPCRA Section 313 chemicals into the air occurring during the disposal operation must be included in the total fugitive air releases reported in Part II, Section 5.1 of Form R.

**5.5.3 Surface impoundment** – A surface impoundment is a natural topographic depression, man-made

excavation, or diked area formed primarily of earthen materials (although some may be lined with man-made materials), that is designed to hold an accumulation of liquid wastes or wastes containing free liquids. Examples of surface impoundments are holding, settling, storage, and elevation pits; ponds, and lagoons. If the pit, pond, or lagoon is intended for storage or holding without discharge, it would be considered to be a surface impoundment used as a final disposal method. A facility should determine, to the best of its ability, the percentage of a volatile chemical, e.g., benzene, that is in waste sent to a surface impoundment that evaporates in the reporting year. The facility should report this as a fugitive air emission in section 5.1. The balance should be reported in section 5.5.3.

Quantities of the EPCRA Section 313 chemical released to surface impoundments that are used merely as part of a wastewater treatment process generally must not be reported in this section. However, if the impoundment accumulates sludges containing the EPCRA Section 313 chemical, you must include an estimate in this section unless the sludges are removed and otherwise disposed (in which case they should be reported under the appropriate section of the form). For the purposes of this reporting, storage tanks are not considered to be a type of disposal and are not to be reported in this section of Form R.

**5.5.4 Other Disposal** —Includes any amount of an EPCRA Section 313 chemical released to land that does not fit the categories of landfills, land treatment, or surface impoundment. This other disposal would include any spills or leaks of EPCRA Section 313 chemicals to land. For example, 2,000 pounds of benzene leaks from an underground pipeline into the land at a facility. Because the pipe was only a few feet from the surface at the erupt point, 30 percent of the benzene evaporates into the air. The 600 pounds released to the air would be reported as a fugitive air release (Part II, Section 5.1) and the remaining 1,400 pounds would be reported as a release to land, other disposal (Part II, Section 5.5.4).

**Column A: Total Release**

Only on-site releases of the EPCRA Section 313 chemical to the environment for the calendar year are to be reported in this section of Form R. The total on-site releases from your facility do not include transfers or shipments of the EPCRA Section 313 chemical from your facility for sale or distribution in commerce, or of wastes to other facilities for disposal, treatment, energy recovery, or recycling (see Part II, Section 6 of these Instructions). Both routine releases, such as fugitive air emissions, and accidental or non-routine releases, such as chemical spills, must be included in your estimate of the quantity released.

**Releases of Less Than 1,000 Pounds.** For total annual releases or off-site transfers of an EPCRA Section 313 chemical from the facility of less than 1,000 pounds, the amount may be reported either as an estimate or by using the range codes that have been developed. The reporting range codes to be used are:

| Code | Range (pounds) |
|---|---|
| A | 1–10 |
| B | 11–499 |
| C | 500–999 |

Do not enter a range code and an estimate in the same box in column A. Total annual on-site releases of an EPCRA Section 313 chemical from the facility of less than 1 pound may be reported in one of several ways. You should round the value to the nearest pound. If the estimate is greater than 0.5 pound, you should either enter the range code "A" for "1–10" or enter "1" in column A. If the release is equal to or less than 0.5 pound, you may round to zero and enter "0" in column A.

Note that total annual releases of 0.5 pound or less from the processing or otherwise use of an article maintain the article status of that item. Thus, if the only releases you have are from processing an article, and such releases are equal to or less than 0.5 pound per year, you are not required to submit a report for that EPCRA Section 313 chemical. The 0.5-pound release determination does not apply to just a single article. It applies to the cumulative releases from the processing or otherwise use of the same type of article (e.g., sheet metal or plastic film) that occurs over the course of the calendar year.

**Zero Releases.** If you have no releases of an EPCRA Section 313 chemical to a particular medium, report either NA, not applicable, or zero, as appropriate. Report NA only when there is no possibility a release could have occurred to a specific media. If a release to a specific media could have occurred, but either did not occur or the annual aggregate release was equal to or less than 0.5 pound, report zero. However, if you report zero releases, a basis of estimate must be provided in column B.

For example, if nitric acid is involved in the facility's processing activities but the facility neutralizes the

wastes to a pH of 6 or above, then the facility reports a zero release for the EPCRA Section 313 chemical. If the facility has no underground injection well, "NA" would be written in Part I, Section 4.10 and checked in Part II, Section 5.4 .1 and 5.4.2 of Form R. Also, if the facility does not landfill the acidic waste, NA would be checked in Part II, Section 5.5.1.B of Form R.

**Releases of 1,000 Pounds or More.** For releases to any medium that amount to 1,000 pounds or more for the year, you must provide an estimate in pounds per year in column A. Any estimate provided in column A need not be reported to more than two significant figures. This estimate should be in whole numbers. Do not use decimal points.

**Calculating On-Site Releases.** To provide the release information required in column A in this section, you must use the best readily available data (including relevant monitoring data and emissions measurements) collected at your facility to meet other regulatory requirements or as part of routine plant operations, to the extent you have such data for the EPCRA Section 313 chemical.

When relevant monitoring data or emission measurements are not readily available, reasonable estimates of the amounts released must be made using published emission factors, material balance calculations, or engineering calculations. You may not use emission factors or calculations to estimate releases if more accurate data are available.

No additional monitoring or measurement of the quantities or concentrations of any EPCRA Section 313 chemical released into the environment, or of the frequency of such releases, beyond that required under other provisions of law or regulation or as part of routine plant operations, is required for the purpose of completing Form R.

You must estimate, as accurately as possible, the quantity (in pounds) of the EPCRA Section 313 chemical or chemical category that is released annually to each environmental medium on-site. Include only the quantity of the EPCRA Section 313 chemical in this estimate. If the EPCRA Section 313 chemical present at your facility was part of a mixture or other trade name product, calculate only the releases of the EPCRA Section 313 chemical, not the other components of the mixture or other trade name product. If you are only able to estimate the releases of the mixture or other trade name product as a whole, you must assume that the release of the EPCRA Section 313 chemical is proportional to its concentration in the mixture or other trade name product. See Part 40, Section 372.30(b) of the *Code of Federal Regulations* for further information on how to calculate the concentration and weight of the EPCRA Section 313 chemical in the mixture or other trade name product.

If you are reporting an EPCRA Section 313 chemical category listed in Table II of these instructions rather than a specific EPCRA Section 313 chemical, you combine the release data for all chemicals in the EPCRA Section 313 chemical category (e.g., all glycol ethers or all chlorophenols) and report the aggregate amount for that EPCRA Section 313 chemical in that category separately. For example, if your facility releases 3,000 pounds per year of 2-chlorophenol, 4,000 pounds per year of 3-chlorophenol, and 4,000 pounds per year of 4-chlorophenol to air as fugitive emissions, you should report that your facility releases 11,000 pounds per year of chlorophenols to air as fugitive emissions in Part II, Section 5.1.

For aqueous ammonia solutions, releases should be reported based on 10% of total aqueous ammonia. Ammonia evaporating from aqueous ammonia solutions is considered to be anhydrous ammonia; therefore, 100% of the anhydrous ammonia should be reported if it is released to the environment. For dissociable nitrate compounds, release estimates should be based on the weight of the nitrate only.

For metal category compounds (e.g., chromium compounds), report release of only the parent metal. For example, a user of various inorganic chromium salts would report the total chromium released regardless of the chemical form (e.g., as the original salts, chromium oxide) and exclude any contribution to mass made by other species in the molecule.

**Column B: Basis of Estimate**

For each release estimate, you are required to indicate the principal method used to determine the amount of release reported. You will enter a letter code that identifies the method that applies to the largest portion of the total estimated release quantity.

The codes are as follows:

M – Estimate is based on monitoring data or measurements for the EPCRA Section 313 chemical.

C– Estimate is based on mass balance calculations, such as calculation of the amount of the EPCRA Section 313 chemical in wastes entering and leaving process equipment.

E– Estimate is based on published emission factors, such as those relating release quantity to through-put or equipment type (e.g., air emission factors).

O– Estimate is based on other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgment. This would include applying an estimated removal efficiency to a treatment, even if the composition of the waste before treatment was fully identified through monitoring data.

For example, if 40 percent of stack emissions of the reported EPCRA Section 313 chemical were derived using monitoring data, 30 percent by mass balance, and 30 percent by emission factors, you would enter the code letter "M" for monitoring.

If the monitoring data, mass balance, or emission factor used to estimate the release is not specific to the EPCRA Section 313 chemical being reported, the form should identify the estimate as based on engineering calculations or best engineering judgment (O).

If a mass balance calculation yields the flow rate of a waste, but the quantity of reported EPCRA Section 313 chemical in the waste is based on solubility data, report "O" because "engineering calculations" were used as the basis of estimate of the quantity of the EPCRA Section 313 chemical in the waste.

If the concentration of the EPCRA Section 313 chemical in the waste was measured by monitoring equipment and the flow rate of the waste was determined by mass balance, then the primary basis of the estimate is "monitoring" (M). Even though a mass balance calculation also contributed to the estimate, "monitoring" should be indicated because monitoring data were used to estimate the concentration of the waste.

Mass balance (C) should only be indicated if it is **directly** used to calculate the mass (weight) of EPCRA Section 313 chemical released. Monitoring data should be indicated as the basis of estimate **only** if the EPCRA Section 313 chemical concentration is measured in the waste being released into the environment. Monitoring data should **not** be indicated, for example, if the monitoring data relate to a concentration of the EPCRA Section 313 chemical in other process streams within the facility.

It is important to realize that the accuracy and proficiency of release estimation will improve over time. However, submitters are not required to use new emission factors or estimation techniques to revise previous Form R submissions.

**Column C: Percent From Stormwater**

This column relates only to Section 5.3 – discharges to receiving streams or water bodies. If your facility has monitoring data on the amount of the EPCRA Section 313 chemical in stormwater runoff (including unchanneled runoff), you must include that quantity of the EPCRA Section 313 chemical in your water release in column A and indicate the percentage of the total quantity (by weight) of the EPCRA Section 313 chemical contributed by stormwater in column C (Section 5.3C).

If your facility has monitoring data on the EPCRA Section 313 chemical and an estimate of flow rate, you must use these data to determine the percent stormwater.

If you have monitored stormwater but did not detect the EPCRA Section 313 chemical, enter zero in column C. If your facility has no stormwater monitoring data for the chemical, enter not applicable, "NA," in this space on the form.

If your facility does not have periodic measurements of stormwater releases of the EPCRA Section 313 chemical, but has submitted chemical-specific monitoring data in permit applications, then these data must be used to calculate the percent contribution from stormwater. Rates of flow can be estimated by multiplying the annual amount of rainfall by the land area of the facility and then multiplying that figure by the runoff coefficient. The runoff coefficient represents the fraction of rainfall that does not seep into the ground but runs off as stormwater. The runoff coefficient is directly related to how the land in the drainage area is used. (See table below)

| Description of Land Area | Runoff Coefficient |
|---|---|
| Business | |
| Downtown areas | 0.70–0.95 |
| Neighborhood areas | 0.50–0.70 |
| Industrial | |
| Light areas | 0.50–0.80 |
| Heavy areas | 0.60–0.90 |

| | |
|---|---|
| Industrial | |
| Railroad yard areas | 0.20–0.40 |
| Unimproved areas | 0.10–0.30 |
| Streets | |
| Asphaltic | 0.70–0.95 |
| Concrete | 0.80–0.95 |
| Brick | 0.70–0.85 |
| Drives and walks | 0.70–0.85 |
| Roofs | 0.75–0.95 |
| Lawns: Sandy Soil | |
| Flat, 2% | 0.05–0.10 |
| Average, 2–7% | 0.10–0.15 |
| Steep, 7% | 0.15–0.20 |
| Lawns: Heavy Soil | |
| Flat, 2% | 0.13–0.17 |
| Average, 2–7% | 0.18–0.22 |
| Steep, 7% | 0.25–0.35 |

Choose the most appropriate runoff coefficient for your site or calculate a weighted-average coefficient, which takes into account different types of land use at your facility:

Weighted-average runoff coefficient =
(Area 1 % of total)(C1) + (Area 2 % of total)(C2) + (Area 3 % of total)(C3) + ... + (Area i % of total)(Ci)

where Ci = runoff coefficient for a specific land use of Area i.

## Section 6. Transfers of the EPCRA Section 313 Chemical in Wastes to Off-Site Locations

You must report in this section the total annual quantity of the EPCRA Section 313 chemical in wastes sent to any off-site facility for the purposes of disposal, treatment, energy recovery, or recycling. Report the total amount of the EPCRA Section 313 chemical transferred off-site after any on-site waste treatment, recycling, or removal is completed. Report zero for transfers of listed mineral acids if they have been neutralized to a pH of 6 or above prior to discharge to a Publicly Owned Treatment Works (POTW).

If you do not discharge wastewater containing the reported EPCRA Section 313 chemical to a POTW, enter not applicable, NA, in the box for the POTW's name in Section 6.1.B._ If you do not ship or transfer wastes containing the reported EPCRA Section 313 chemical to other off-site locations, enter not applicable, NA, in the box for the off-site location's EPA Identification Number in Section 6.2._.

**Important:** You must number the boxes for reporting the information for each POTW or other off-site location in Sections 6.1 and 6.2. In the upper left hand corner of each box, the section number is either 6.1.B._. or 6.2._.

If you report a transfer of the listed EPCRA Section 313 chemical to one or more POTWs, number the boxes in Section 6.1.B as 6.1.B.1, 6.1.B.2, etc. If you transfer the EPCRA Section 313 chemical to more than two POTWs, photocopy page 3 of Form R as many times as necessary and then number the boxes consecutively for each POTW. At the bottom of Section 6 you will find instructions for indicating the total number of page 3s that you are submitting as part of Form R, as well as indicating the sequence of those pages. For example, your facility transfers the reported EPCRA Section 313 chemical in wastewaters to three POTWs. You would photocopy page 3 once, indicate at the bottom of each page 3 that there are a total of two page 3s and then indicate the first and second page 3. The boxes for the two POTWs on the first page 3 would be numbered 6.1.B.1 and 6.1.B.2, while the box for third POTW on the second page 3 would be numbered 6.1.B.3.

If you report a transfer of the EPCRA Section 313 chemical to one or more other off-site locations, number the boxes in section 6.2 as 6.2.1, 6.2.2, etc. If you transfer the EPCRA Section 313 chemical to more than two other off-site locations, photocopy page 4 of Form R as many times as necessary and then number the boxes consecutively for each off-site location. At the bottom of page 4 you will find instructions for indicating the total number of page 4s that you are submitting as part of Form R as well as indicating the sequence of those pages. For example, your facility transfers the reported EPCRA Section 313 chemical to three other off-site locations. You would photocopy page 4 once, indicate at the bottom of Section 6.2 on each page 4 that there are a total of two page 4s and then indicate the first and second page 4. The boxes for the two off-site locations on the first page 4 would be numbered 6.2.1 and 6.2.2, while the box for the third off-site location on the second page 4 would be numbered 6.2.3.

### 6.1 Discharges to Publicly Owned Treatment Works (POTWs)

In Section 6.1.A , estimate the quantity of the reported EPCRA Section 313 chemical transferred to all POTWs and the basis upon which the estimate was made. In Section 6.1.B., enter the name and address for each POTW to which your facility discharges wastewater containing the reported EPCRA Section 313 chemical.

If you do not discharge wastewater containing the reported EPCRA Section 313 chemical to a POTW, enter not applicable, NA, in the box for the POTW's name in Section 6.1.B._.

**6.1.A.1 Total Transfers**

Enter the total amount, in pounds, of the reported EPCRA Section 313 chemical that is contained in the wastewaters transferred to all POTWs. Do not enter the total poundage of the wastewaters. If the total amount transferred is less than 1,000 pounds, you may report a range by entering the appropriate range code. The following reporting range codes are to be used:

| Code | Reporting Range (in pounds) |
|---|---|
| A | 1-10 |
| B | 11-499 |
| C | 500-999 |

**6.1.A.2 Basis of Estimate**

You must identify the basis for your estimate of the total quantity of the reported EPCRA Section 313 chemical in the wastewater transferred to all POTWs. Enter one of the following letter codes that applies to the method by which the largest percentage of the estimate was derived.

M– Estimate is based on monitoring data or measurements for the EPCRA Section 313 chemical as transferred to an off-site facility.

C– Estimate is based on mass balance calculations, such as calculation of the amount of the EPCRA Section 313 chemical in streams entering and leaving process equipment.

E– Estimate is based on published emission factors, such as those relating release quantity to through-put or equipment type (e.g., air emission factors).

O– Estimate is based on other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgment. This would include applying an estimated removal efficiency to a waste stream, even if the composition of the stream before treatment was fully identified through monitoring data.

If you transfer an EPCRA Section 313 chemical to more than one POTW, you should report the basis of estimate that was used to determine the largest percentage of the EPCRA Section 313 chemical that was transferred.

**6.2 Transfers to Other Off-Site Locations**

In Section 6.2 enter the EPA Identification Number, name, and address for each off-site location to which your facility ships or transfers wastes containing the reported EPCRA Section 313 chemical for the purposes of disposal, treatment, energy recovery, or recycling. Also estimate the quantity of the reported EPCRA Section 313 chemical transferred and the basis upon which the estimate was made. This would include any residual chemicals in "empty" containers transferred off-site. EPA expects that all containers (bags, totes, drums, tank trucks, etc.) will have a small amount of residual solids and/or liquids. Please see following summary of residue quantities left in drums and tanks when emptied.

If appropriate, you must report multiple activities for each off-site location. For example, if your facility sends a reported EPCRA Section 313 chemical in waste to an off-site location where some of the EPCRA Section 313 chemical is to be recycled while the remainder of the quantity transferred is to be treated, you must report both the waste treatment and recycle activities, along with the quantity associated with each activity.

If your facility transfers a reported EPCRA Section 313 chemical to an off-site location and that off-site location performs more than four activities on that chemical, provide the necessary information in Box 6.2.1 for the off-site facility and the first four activities. Provide the information on the remainder of the activities in Box 6.2.2 and provide again the off-site facility identification and location information.

If you do not ship or transfer wastes containing the reported EPCRA Section 313 chemical to other off-site locations, enter not applicable, NA, in the box for the off-site location's EPA Identification Number (defined in 40 CFR 260.10 and therefore commonly referred to as the RCRA ID Number). This number may be found on the Uniform Hazardous Waste Manifest, which is required by RCRA regulations. If you ship or transfer wastes containing an EPCRA Section 313 chemical and the off-site location does not have an EPA Identification Number (e.g., it does not accept RCRA hazardous wastes or the wastes in question are not classified as hazardous), enter NA in the box for the off-site location EPA Identification Number. If you ship or transfer the reported EPCRA Section 313 chemical in wastes to another country, enter the Federal Information Processing Standards (FIPS) code for that country in the county field of the address for the

**Example 12: Stormwater Runoff**

Your facility is located in a semi-arid region of the United States that has an annual precipitation (including snowfall) of 12 inches of rain. (Snowfall should be converted to the equivalent inches of rain; assume one foot of snow is equivalent to one inch of rain.) The total area covered by your facility is 42 acres (about 170,000 square meters or 1,829,520 square feet). The area of your facility is 50 percent unimproved area, 10 percent asphaltic streets, and 40 percent concrete pavement.

The total stormwater runoff from your facility is therefore calculated as follows:

| Land Use | % Total Area | Runoff Coefficient |
|---|---|---|
| Unimproved area | 50 | 0.20 |
| Asphaltic streets | 10 | 0.85 |
| Concrete pavement | 40 | 0.90 |

Weighted-average runoff coefficient = (50%) x (0.20) + (10%) x (0.85) + (40%) x (0.90) = 0.545

(Rainfall) x (land area) x (conversion factor) x (runoff coefficient) = stormwater runoff
(1 ft/year) x (1,829,520 $ft^2$) x (7.48 $gal/ft^3$) x (0.545) = 7,458,222 gallons/year

Total stormwater runoff = 7,458,222 gallons/year

Your stormwater monitoring data shows that the average concentration of zinc in the stormwater runoff from your facility from a biocide containing a zinc compound is 1.4 milligrams per liter. The total amount of zinc discharged to surface water through the plant wastewater discharge (non-stormwater) is 250 pounds per year. The total amount of zinc discharged with stormwater is:

(7,458,222 gallons stormwater)x(3.785 liters/gallon) = 28,229,370 liters stormwater

(28,229,370 liters stormwater)x(1.4 mg zinc/liter) x $10^{-3}$ g/mg x (1/454) lb/g = 87 lb zinc.

The total amount of zinc discharged from all sources of your facility is:

250 pounds zinc from wastewater discharged
+87 pounds zinc from stormwater runoff
337 pounds zinc total water discharged

The percentage of zinc discharge through stormwater reported in section 5.3 column C on Form is:

87/337x100 = 26%

**Example 13: Reporting Metals and Metal Category Compounds that are Sent Off-site**

A facility manufactures a product containing elemental lead. Various metal fabrication operations for the process produce a wastewater stream that contains some residual lead and off-specification lead material. The wastewater is collected and sent directly to a POTW. Periodic monitoring data show that 500 pounds of lead were transferred to the POTW in the reporting year. The off-specification products (containing lead) are collected and sent off-site to a landfill. Sampling analyses of the product combined with hazardous waste manifests were used to determine that 1,200 pounds of lead in the off-spec product were sent to the off-site landfill.

Therefore, the facility should report 500 pounds in Section 6.1, 1200 pounds in Section 6.2 — M72 and 1,700 pounds in Section 8.1 — Quantity Released Off-site.

Note that for EPCRA Section 313 chemicals that are not metals or metal category compounds, the quantity sent to POTWs and to other off-site treatment locations should be reported in Section 8.7 — Quantity Treated Off-site.

| Country | Code |
|---|---|
| Argentina | AR |
| Belgium | BE |
| Bolivia | BL |
| Brazil | BR |
| Canada | CA |
| Chile | CI |
| Columbia | CO |
| Costa Rica | CS |
| Cuba | CU |
| Ecuador | EC |
| El Salvador | ES |
| France | FR |
| Guatemala | GT |
| Honduras | HO |
| Ireland | EI |
| Italy | IT |
| Mexico | MX |
| Nicaragua | NU |
| Panama | PM |
| Paraguay | PA |
| Peru | PE |
| Portugal | PO |
| Spain | SP |
| Switzerland | SZ |
| United Kingdom | UK |
| Uruguay | UY |
| Venezuela | VE |

**Summary of Residue Quantities From Pilot-Scale Experimental Study[a,b]**
**(weight percent of drum capacity)**

| Unloading Method | Vessel Type | Value | Material | | | |
|---|---|---|---|---|---|---|
| | | | Kerosene[c] | Water[d] | Motor Oil[e] | Surfactant Solution[f] |
| Pumping | Steel drum | Range<br>Mean | 1.93 - 3.08<br>2.48 | 1.84 - 2.61<br>2.29 | 1.97 - 2.23<br>2.06 | 3.06<br>3.06 |
| Pumping | Plastic drum | Range<br>Mean | 1.69 - 4.08<br>2.61 | 2.54 - 4.67<br>3.28 | 1.70 - 3.48<br>2.30 | Not Available |
| Pouring | Bung-top steel drum | Range<br>Mean | 0.244 - 0.472<br>0.404 | 0.266 - 0.458<br>0.403 | 0.677 - 0.787<br>0.737 | 0.485<br>0.485 |
| Pouring | Open-top steel drum | Range<br>Mean | 0.032 - 0.080<br>0.054 | 0.026 - 0.039<br>0.034 | 0.328 - 0.368<br>0.350 | 0.089<br>0.089 |
| Gravity Drain | Slope-bottom steel tank | Range<br>Mean | 0.020 - 0.039<br>0.033 | 0.016 - 0.024<br>0.019 | 0.100 - 0.121<br>0.111 | 0.048<br>0.048 |
| Gravity Drain | Dish-bottom steel tank | Range<br>Mean | 0.031 - 0.042<br>0.038 | 0.033 - 0.034<br>0.034 | 0.133 - 0.191<br>0.161 | 0.058<br>0.058 |
| Gravity Drain | Dish-bottom glass-lined tank | Range<br>Mean | 0.024 - 0.049<br>0.040 | 0.020 - 0.040<br>0.033 | 0.112 - 0.134<br>0.127 | 0.040<br>0.040 |

[a]From "Releases During Cleaning of Equipment." Prepared by PEI Associates, Inc., for the U.S. Environmental Protection Agency, Office of Pesticides and Toxic Substances, Washington DC, Contract No. 68-02-4248. June 30, 1986.

[b]The values listed in this table should only be applied to similar vessel types, unloading methods, and bulk fluid materials. At viscosities greater than 200 centipoise, the residue quantities can rise dramatically and the information on this table is not applicable.

[c]For kerosene, viscosity = 5 centipoise, surface tension = 29.3 dynes/cm$^2$

[d]For water, viscosity = 4 centipoise, surface tension = 77.3 dynes/cm$^2$

[e]For motor oil, viscosity = 94 centipoise, surface tension = 34.5 dynes/cm$^2$

[f]For surfactanct solution, viscosity = 3 centipoise, surface tension = 31.4 dynes/cm$^2$

**Example 14: Container Residue**

You have determined that a Form R for an EPCRA Section 313 chemical must be submitted. The facility purchases and uses one thousand 55-gallon steel drums that contain a 10% solution of the chemical. Further, it is assumed that the physical properties of the solution are similar to water. The solution is pumped from the drums directly into a mixing vessel and the "empty" drums are triple-rinsed with water. The rinse water is indirectly discharged to a POTW and the cleaned drums are sent to a drum reclaimer.

In this example, it can be assumed that all of the residual solution in the drums was transferred to the rinse water. Therefore, the quantity transferred to the drum reclaimer should be reported as "zero." The annual quantity of residual solution that is transferred to the rinse water can be estimated by multiplying the mean weight percent of residual solution remaining in water from pumping a steel drum by the total annual weight of solution in the drum (density of solution multiplied by drum volume). If the density is not known, it may be appropriate to use the density of water (8.34 pounds per gallon):

(2.29%) × (8.34 pounds/gallon) × (55 gallons/drum) × (1,000 drums)
= 10,504 pounds solution

The concentration of the EPCRA Section 313 chemical in the solution is only 10 percent.

(10,504 pounds solution) × (10%) = 1,050 pounds

Therefore, 1,050 pounds of the chemical are transferred to the POTW.

off-site facility. Enter the complete address of the non-U.S. facility in the off-site address fields, the city in the city field, and enter the foreign country code in the county field. The most commonly used FIPS codes are listed below. To obtain a FIPS code for a country not listed here, contact the EPCRA Hotline.

### 6.2 Column A: Total Transfers

For each off-site location, enter the total amount, in pounds, of the EPCRA Section 313 chemical that is contained in the waste transferred to that location. Do not enter the total poundage of the waste. If the total amount transferred is less than 1,000 pounds, you may report a range by entering the appropriate range code. The following reporting range codes are to be used:

| Code | Reporting Range (in pounds) |
|---|---|
| A | 1–10 |
| B | 11–499 |
| C | 500–999 |

If you transfer the EPCRA Section 313 chemical in wastes to an off-site facility for distinct and multiple purposes, you must report those activities for each off-site location, along with the quantity of the reported EPCRA Section 313 chemical associated with each activity. For example, your facility transfers a total of 15,000 pounds of toluene to an off-site location that will use 5,000 pounds for the purposes of energy recovery, enter 7,500 pounds into a recovery process, and dispose of the remaining 2,500 pounds. These quantities and the associated activity codes must be reported separately in Section 6.2. (See Figure 4 for a hypothetical Section 6.2 completed for two off-site location, one of which receives the transfer of 15,000 pounds of toluene as detailed.) If you need to report more than four off-site transfers (involving different waste management) to one location, continue reporting of these transfers by listing the same location in the next off-site location section.

Do not double or multiple count amounts transferred off-site. For example, when a reported EPCRA Section 313 chemical is sent to an off-site facility for sequential activities and the specific quantities associated with each activity are unknown, report only a single quantity (the total quantity transferred to that off-site location) along with a single activity code. In such a case, report the activity applied to the majority of the reported EPCRA Section 313 chemical sent off-site, not the ultimate disposition of the EPCRA Section 313 chemical. For example, when an EPCRA Section 313 chemical is first recovered and then treated with the majority of the EPCRA Section 313 chemical being recovered and only a

**Figure 4**

| SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATION | | | |
|---|---|---|---|
| 6.2. 1 | Off-Site EPA Identification Number (RCRA No.) | COD566162461 | |
| Off-Site Location Name | Acme Waste Services | | |
| Street Address | 5 Market Street | | |
| City | Releaseville | County | Hill |
| State CO | Zip Code 80461 | Is location under control of reporting facility or parent company ☐ Yes ☒ No | |

| A. Total Transfers (pounds)/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 5,000 | 1. O | 1. M56 |
| 2. 7,500 | 2. C | 2. M20 |
| 3. 2,500 | 3. O | 3. M72 |
| 4. NA | 4. | 4. M |

**Hypothetical Secton 6.2 Completed for Two Off-Site Locations**

This off-site location receives a transfer of 15,000 pounds of toluene and will combust 5,000 pounds for the purposes of energy recovery, enter 7,500 pounds into a recovery process, and dispose of the remaining 2,500 pounds.

| SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATION | | | |
|---|---|---|---|
| 6.2. 2 | Off-Site EPA Identification Number (RCRA No.) | COD167725432 | |
| Off-Site Location Name | Combustion, Inc. | | |
| Street Address | 25 Facility Road | | |
| City | Dumfry | County | Burns |
| State CO | Zip Code 80500 | Is location under control of reporting facility or parent company ☐ Yes ☒ No | |

| A. Total Transfers (pounds)/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 12,500 | 1. O | 1. M54 |
| 2. NA | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

This off-site location receives a transfer of 12,500 pounds of tetrachloroethylene (perchloroethylene) that is part of a waste that is combusted for the purposesof energy recovery in an industrial furnace. Note that the perchloroethylene is reported using code M54 to indicate that it is combusted in an energy recovery unit but it does not contribute to the heating value of the waste.

fraction subsequently treated, report the appropriate recycling activity along with the quantity.

**6.2 Column B: Basis of Estimate**

You must identify the basis for your estimates of the quantities of the reported EPCRA Section 313 chemical in waste transferred to each off-site location. Enter one of the following letter codes that applies to the method by which the largest percentage of the estimate was derived.

M – Estimate is based on monitoring data or measurements for the EPCRA Section 313 chemical as transferred to an off-site facility.

C – Estimate is based on mass balance calculations, such as calculation of the amount of the EPCRA Section 313 chemical in streams entering and leaving process equipment.

E – Estimate is based on published emission factors, such as those relating release quantity to throughput or equipment type (e.g., air emission factors).

O – Estimate is based on other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgment. This would include applying an estimated removal efficiency to a waste stream, even if the composition of the stream before treatment was fully identified through monitoring data.

**6.2 Column C: Type of Waste Management: Disposal/ Treatment/Energy Recovery/Recycling**

Enter one of the following M codes to identify the type of disposal, treatment, energy recovery, or recycling methods used by the off-site location for the reported EPCRA Section 313 chemical. You must use more than one line and code for a single location when distinct quantities of the reported EPCRA Section 313 chemical are subject to different waste management activities, including disposal, treatment, energy recovery, or recycling. You should use the code that, to the best of your knowledge, represents the ultimate disposition of the chemical.

If the EPCRA Section 313 chemical is sent off-site for further direct reuse (e.g., an EPCRA Section 313 chemical in used solvent that will be used as lubricant at another facility) and does not undergo a waste management activity (i.e., release [including disposal], treatment, energy recovery, or recycling [recovery]) prior to that reuse, it need not be reported in section 6.2 or section 8.

**Incineration vs. Energy Recovery**

You must distinguish between incineration, which is waste treatment, and legitimate energy recovery. For you to claim that a reported EPCRA Section 313 chemical sent off-site is used for the purposes of energy recovery and not for waste treatment, the EPCRA Section 313 chemical must have a significant heating value and must be combusted in an energy recovery unit such as an industrial boiler, furnace, or kiln. In a situation where the reported EPCRA Section 313 chemical is in a waste that is combusted in an energy recovery unit, but the EPCRA Section 313 chemical does not have a significant heating value, e.g., CFCs, use code M54, Incineration/ Insignificant Fuel Value, to indicate that the EPCRA Section 313 chemical was incinerated in an energy recovery unit but did not contribute to the heating value of the waste.

**Metals and Metal Category Compounds**

Metals and metal category compounds will be managed in waste either by being released (including disposed) or by being recycled. Remember that the release and other waste management information that you report for metal category compounds will be the total amount of the parent metal released or recycled and NOT the whole metal category compound. The metal has no heat value and thus cannot be combusted for energy recovery and cannot be treated because it cannot be destroyed. Thus, transfers of metals and metal category compounds for further waste management should be reported as either a transfer for recycling or a transfer for disposal. The applicable waste management codes for transfers of metals and metal category compounds for recycling are M24, metals recovery, M93, waste broker – recycling, or M26, other reuse/recovery. Applicable codes for transfers for disposal include M10, M41, M62, M71, M72, M73, M79, M90, M94, and M99. These codes are for off-site transfers for further waste management in which the wastestream may be treated but the metal contained in the wastestream is not treated and is ultimately released. For example, M41 would be used for a metal or metal category compound that is stabilized in preparation for disposal.

**Example 15: Calculating Releases and Other Waste Management Quantities**

Your facility disposes of 14,000 pounds of lead chromate ($PbCrO_4.PbO$) in an on-site landfill and transfers 16,000 pounds of lead selenite ($PbSeO_4$) to an off-site land disposal facility. You would therefore be submitting three separate reports on the following: lead compounds, selenium compounds, and chromium compounds. However, the quantities you would be reporting would be the pounds of "parent" metal being released on-site or transferred off-site for further waste management. All quantities are based on mass balance calculations (See Section 5, Column B for information on Basis of Estimate and Section 6.2, Column C for waste management codes and information on transfers of EPCRA Section 313 chemicals in wastes). You would calculate releases of lead, chromium, and selenium by first determining the percentage by weight of these metals in the materials you use as follows:

**Lead Chromate** ($PbCrO_4.PbO$) — Molecular weight = 546.37
- Lead (2 Pb atoms) — Atomic weight = 207.2 x 2 = 414.4
- Chromium (1 Cr atom) — Atomic weight = 51.996

Lead chromate is therefore (% by weight)

(414.4/546.37) = 75.85% lead and
(51.996/546.37) = 9.52% chromium

**Lead Selenite** ($PbSeO_4$) — Molecular weight = 350.17
- Lead (1 Pb atom) — Atomic weight = 207.2
- Selenium (1 Se atom) — Atomic weight = 78.96

Lead selenite is therefore (% by weight)

(207.2/350.17) = 59.17% lead and
(78.96/350.17) = 22.55% selenium.

The total pounds of lead, chromium, and selenium disposed on or off-site from your facility are as follows:

**Lead**

Disposal on-site: 0.7585 x 14,000 = 10,619 pounds from lead chromate
Transfer off-site for disposal: 0.5917 x 16,000 = 9,467 pounds from lead selenite

**Chromium**

Disposal on-site: 0.0952 x 14,000 = 1,333 pounds from lead chromate

**Selenium**

Transfer off-site for disposal: 0.2255 x 16,000 = 3,608 pounds from lead selenite

Applicable codes for Part II, Section 6.2, column C are:

Disposal
- M10 Storage Only
- M41 Solidification/Stabilization – Metals and Metal Category Compounds only
- M62 Wastewater Treatment (Excluding POTW) – Metals and Metal Category Compounds only
- M71 Underground Injection
- M72 Landfill/Disposal Surface Impoundment
- M73 Land Treatment
- M79 Other Land Disposal

M90 Other Off-Site Management
M94 Transfer to Waste Broker – Disposal
M99 Unknown

Treatment
M40 Solidification/Stabilization
M50 Incineration/Thermal Treatment
M54 Incineration/Insignificant Fuel Value
M61 Wastewater Treatment (Excluding POTW)
M69 Other Waste Treatment
M95 Transfer to Waste Broker – Waste Treatment

Energy Recovery
M56 Energy Recovery
M92 Transfer to Waste Broker – Energy Recovery

Recycling
M20 Solvents/Organics Recovery
M24 Metals Recovery
M26 Other Reuse or Recovery
M28 Acid Regeneration
M93 Transfer to Waste Broker – Recycling

## Section 7. On-Site Waste Treatment, Energy Recovery, and Recycling Methods

You must report in this section the methods of waste treatment, energy recovery, and recycling applied to the reported EPCRA Section 313 chemical in wastes on-site. There are three separate sections for reporting such activities.

### Section 7A On-Site Waste Treatment Methods and Efficiency

Most of the chemical-specific information required by EPCRA Section 313 that is reported on Form R is specific to the EPCRA Section 313 chemical rather than the waste stream containing the EPCRA Section 313 chemical. However, EPCRA Section 313 does require that waste treatment methods applied on-site to waste streams that contain the EPCRA Section 313 chemical be reported. This information is collected in Section 7A of Form R.

In Section 7A, you must provide the following information if you treat the reported EPCRA Section 313 chemical on-site:

(a) The general waste stream types containing the EPCRA Section 313 chemical being reported;
(b) The waste treatment method(s) or sequence used on all waste streams containing the EPCRA Section 313 chemical;
(c) The range of concentration of the EPCRA Section 313 chemicals in the influent to the waste treatment method;
(d) The efficiency of each waste treatment method or waste treatment sequence in destroying or removing the EPCRA Section 313 chemical; and
(e) Whether the waste treatment efficiency figure was based on actual operating data.

Use a separate line in Section 7A for each general waste stream type. Report only information about treatment of waste streams at your facility, not information about off-site waste treatment.

If you do not perform on-site treatment of waste streams containing the reported EPCRA Section 313 chemical, check the Not Applicable (NA) box at the top of Section 7A.

#### 7A Column A: General Waste Stream

For each waste treatment method, indicate the type of waste stream containing the EPCRA Section 313 chemical that is treated. Enter the letter code that corresponds to the general waste stream type:

A Gaseous (gases, vapors, airborne particulates)
W Wastewater (aqueous waste)
L Liquid waste streams (non-aqueous waste)
S Solid waste streams (including sludges and slurries)

If a waste is a mixture of water and organic liquid and the organic content is less than 50 percent, report it as a wastewater (W). Slurries and sludges containing water must be reported as solid waste if they contain appreciable amounts of dissolved solids, or solids that may settle, such that the viscosity or density of the waste is considerably different from that of process wastewater.

#### 7A Column B: Waste Treatment Method(s) Sequence

Enter the appropriate waste treatment code from the list below for each on-site waste treatment method used on a waste stream containing the EPCRA Section 313 chemical, regardless of whether the waste treatment method actually removes the specific EPCRA Section 313 chemical being reported. Waste treatment methods must be reported for each type of waste stream being treated

(i.e., gaseous waste streams, aqueous waste streams, liquid non-aqueous waste streams, and solids). Except for the air emission treatment codes, the waste treatment codes are not restricted to any medium.

Waste streams containing the EPCRA Section 313 chemical may have a single source or may be aggregates of many sources. For example, process water from several pieces of equipment at your facility may be combined prior to waste treatment. Report waste treatment methods that apply to the aggregate waste stream, as well as waste treatment methods that apply to individual waste streams. If your facility treats various wastewater streams containing the EPCRA Section 313 chemical in different ways, the different waste treatment methods must be listed separately.

If your facility has several pieces of equipment performing a similar service in a waste treatment sequence, you may combine the reporting for such equipment. It is not necessary to enter four codes to cover four scrubber units, for example, if all four are treating waste streams of similar character (e.g., sulfuric acid mist emissions), have similar influent concentrations, and have similar removal efficiencies. If, however, any of these parameters differs from one unit to the next, each scrubber must be listed separately.

If your facility performs more than eight sequential waste treatment methods on a single general waste stream, continue listing the methods in the next row and renumber appropriately those waste treatment method code boxes you used to continue the sequence. For example, if the general waste stream in box 7A.1a had nine treatment methods applied to it, the ninth method would be indicated in the first method box for row 7A.2a. The numeral "1" would be crossed out, and a "9" would be inserted.

Treatment applied to any other general waste stream types would then be listed in the next empty row. In the scenario above, for instance, the second general waste stream would be reported in row 7A.3a. See Figure 5 for an example of a hypothetical Section 7A completed for a nine-step waste treatment process and a single waste treatment method.

If you need additional space to report under Section 7A, photocopy page 4 of Form R as many times as necessary. At the bottom of page 4 you will find instructions for indicating the total number of page 4s that you are submitting as part of Form R, as well as instructions for indicating the sequence of those pages.

**Waste Treatment Codes**

**Air Emissions Treatment (applicable to gaseous waste streams only)**

| | |
|---|---|
| A01 | Flare |
| A02 | Condenser |
| A03 | Scrubber |
| A04 | Absorber |
| A05 | Electrostatic Precipitator |
| A06 | Mechanical Separation |
| A07 | Other Air Emission Treatment |

**Biological Treatment**

| | |
|---|---|
| B11 | Aerobic |
| B21 | Anaerobic |
| B31 | Facultative |
| B99 | Other Biological Treatment |

**Chemical Treatment**

| | |
|---|---|
| C01 | Chemical Precipitation – Lime or Sodium Hydroxide |
| C02 | Chemical Precipitation – Sulfide |
| C09 | Chemical Precipitation – Other |
| C11 | Neutralization |
| C21 | Chromium Reduction |
| C31 | Complexed Metals Treatment (other than pH adjustment) |
| C41 | Cyanide Oxidation – Alkaline Chlorination |
| C42 | Cyanide Oxidation – Electrochemical |
| C43 | Cyanide Oxidation – Other |
| C44 | General Oxidation (including Disinfection) – Chlorination |
| C45 | General Oxidation (including Disinfection) – Ozonation |
| C46 | General Oxidation (including Disinfection) – Other |
| C99 | Other Chemical Treatment |

**Incineration/Thermal Treatment**

| | |
|---|---|
| F01 | Liquid Injection |
| F11 | Rotary Kiln with Liquid Injection Unit |
| F19 | Other Rotary Kiln |
| F31 | Two Stage |
| F41 | Fixed Hearth |

F42 Multiple Hearth
F51 Fluidized Bed
F61 Infra-Red
F71 Fume/Vapor
F81 Pyrolytic Destructor
F82 Wet Air Oxidation
F83 Thermal Drying/Dewatering
F99 Other Incineration/Thermal Treatment

**Physical Treatment**

P01 Equalization
P09 Other Blending
P11 Settling/Clarification
P12 Filtration
P13 Sludge Dewatering (non-thermal)
P14 Air Flotation
P15 Oil Skimming
P16 Emulsion Breaking – Thermal
P17 Emulsion Breaking – Chemical
P18 Emulsion Breaking – Other
P19 Other Liquid Phase Separation
P21 Adsorption – Carbon
P22 Adsorption – Ion Exchange (other than for recovery/reuse)
P23 Adsorption – Resin
P29 Adsorption – Other
P31 Reverse Osmosis (other than for recovery/reuse)
P41 Stripping – Air
P42 Stripping – Steam
P49 Stripping – Other
P51 Acid Leaching (other than for recovery/reuse)
P61 Solvent Extraction (other than recovery/reuse)
P99 Other Physical Treatment

**Solidification/Stabilization**

G01 Cement Processes (including silicates)
G09 Other Pozzolonic Processes (including silicates)
G11 Asphaltic Processes
G21 Thermoplastic Techniques
G99 Other Solidification Processes

### 7A Column C: Range of Influent Concentration

The form requires an indication of the range of concentration of the EPCRA Section 313 chemical in the waste stream (i.e., the influent) as it typically enters the waste treatment step or sequence. The concentration is based on the amount or mass of the EPCRA Section 313 chemical in the waste stream as compared to the total amount or mass of the waste stream. Enter in the space provided one of the following code numbers corresponding to the concentration of the EPCRA Section 313 chemical in the influent:

1 = Greater than 10,000 parts per million (1 percent)
2 = 100 parts per million (0.01 percent) to 10,000 parts per million (1 percent)
3 = 1 part per million (0.0001 percent) to 100 parts per million (0.01 percent)
4 = 1 part per billion to 1 part per million
5 = Less than 1 part per billion

Note: Parts per million (ppm) is:

- milligrams/kilogram (mass/mass) for solids and liquids;
- cubic centimeters/cubic meter (volume/volume) for gases;
- milligrams/liter for solutions or dispersions of the chemical in water; and
- milligrams of chemical/kilogram of air for particulates in air.

If you have particulate concentrations (at standard temperature and pressure) as grains/cubic foot of air, multiply by 1766.6 to convert to parts per million; if in milligrams/cubic meter, multiply by 0.773 to obtain parts per million. These conversion factors are for standard conditions of 0° C (32° F) and 760 mm Hg atmospheric pressure.

### 7A Column D: Waste Treatment Efficiency Estimate

In the space provided, enter the number indicating the percentage of the EPCRA Section 313 chemical removed from the waste stream through destruction, biological degradation, chemical conversion, or physical removal. The waste treatment efficiency (expressed as percent removal) represents the percentage of the EPCRA Section 313 chemical destroyed or removed (based on amount or mass), not merely changes in volume or concentration of the EPCRA Section 313 chemical in the waste stream. The efficiency, which can reflect the overall removal from sequential treatment methods applied to the general waste stream, refers only to the percent destruction, degradation, conversion, or removal of the EPCRA Section 313 chemical from the waste stream, not the percent conversion or removal of other constituents in the waste stream. The efficiency also does not refer to the general efficiency of the treatment method for any waste stream. For some waste treatment methods, the percent

removal will represent removal by several mechanisms, as in an aeration basin, where an EPCRA Section 313 chemical may evaporate, biodegrade, or be physically removed from the sludge.

Percent removal can be calculated as follows:

$$\frac{(I - E)}{I} \times 100$$

where:

I = amount of the EPCRA Section 313 chemical in the influent waste stream (entering the waste treatment step or sequence) and

E = amount of the EPCRA Section 313 chemical in the effluent waste stream (exiting the waste treatment step or sequence).

Calculate the amount of the EPCRA Section 313 chemical in the influent waste stream by multiplying the concentration (by weight) of the EPCRA Section 313 chemical in the waste stream by the total amount or weight of the waste stream. In most cases, the percent removal compares the treated effluent to the influent for the particular type of waste stream. For solidification of wastewater, the waste treatment efficiency can be reported as 100 percent if no volatile EPCRA Section 313 chemicals were removed with the water or evaporated into the air. Percent removal does not apply to incineration because the waste stream, such as wastewater or liquids, may not exist in a comparable form after waste treatment and the purpose of incineration as a waste treatment is to destroy the EPCRA Section 313 chemical by converting it to carbon dioxide and water or other byproducts. In cases where the EPCRA Section 313 chemical is incinerated, the percent efficiency must be based on the amount of the EPCRA Section 313 chemical destroyed or combusted, except for metals or metal category compounds. In the cases in which a metal or metal category compound is incinerated, the efficiency is always zero for the parent metal.

Similarly, an efficiency of zero must be reported for any waste treatment method(s) (e.g., evaporation) that does not destroy, chemically convert or physically remove the EPCRA Section 313 chemical from the waste stream.

For metal category compounds, the calculation of the reportable concentration and waste treatment efficiency must be based on the weight of the parent metal, not on the weight of the metal compound. Metals are not destroyed, only physically removed or chemically converted from one form into another. The waste treatment efficiency reported must represent only physical removal of the parent metal from the waste stream (except for incineration), not the percent chemical conversion of the metal compound. If a listed waste treatment method converts but does not remove a metal (e.g., chromium reduction), the method must be reported with a waste treatment efficiency of zero.

EPCRA Section 313 chemicals that are strong mineral acids neutralized to a pH of 6 or above are considered treated at a 100 percent efficiency.

All data readily available at your facility must be used to calculate waste treatment efficiency and influent EPCRA Section 313 chemical concentration. If data are lacking, estimates must be made using best engineering judgment or other methods.

**7A Column E: Based on Operating Data?**

This column requires you to indicate "Yes" or "No" to whether the waste treatment efficiency estimate is based on actual operating data. For example, you would check "Yes" if the estimate is based on monitoring of influent and effluent wastes under typical operating conditions.

If the efficiency estimate is based on published data for similar processes or on equipment supplier's literature, or if you otherwise estimated either the influent or effluent waste comparison or the flow rate, check "No."

**Section 7B On-Site Energy Recovery Processes**

In Section 7B, you must indicate the on-site energy recovery methods used on the reported EPCRA Section 313 chemical. If you do not perform on-site energy recovery for the reported EPCRA Section 313 chemical, check the Not Applicable (NA) box at the top of Section 7B.

Only EPCRA Section 313 chemicals that have a significant heating value and are combusted in an energy recovery unit such as an industrial furnace, kiln, or boiler, can be reported as combusted for energy recovery in this section. If a reported EPCRA Section 313 chemical is incinerated on-site but does not contribute energy to the process (e.g., chlorofluorocarbons), it must be considered waste treated on-site and reported in Section 7A. Metals and metal category compounds cannot be

**Example 16: On-Site Waste Treatment**

A process at the facility generates a wastewater stream containing an EPCRA Section 313 chemical (chemical A). A second process generates a wastewater stream containing two EPCRA Section 313 chemicals, a metal (chemical B) and a mineral acid (chemical C). Thresholds for all three chemicals have been exceeded and you are in the process of completing separate Form Rs for each chemical.

These two wastewater streams are combined and sent to an on-site wastewater treatment system before being discharged to a POTW. This system consists of an oil/water separator that removes 99% of chemical A; a neutralization tank in which the pH is adjusted to 7.5, thereby destroying 100% of the mineral acid (chemical C); and a settling tank where 95% of the metal (chemical B) is removed from the water (and eventually landfilled off-site).

Section 7A should be completed slightly differently when you file the Form R for each of the chemicals. The table accompanying this example shows how Section 7A should be completed for each chemical. First, on each Form R you should identify the type of waste stream in Section 7A.1a as wastewater (aqueous waste, code W). Next, on each Form R you should list the code for each of the treatment steps that is applied to the entire waste stream, regardless of whether the operation affects the chemical for which you are completing the Form R (for instance, the first four blocks of Section 7A.1b of all three Form Rs should show: P19 (liquid phase separation), C11 (neutralization), P11 (settling/clarification), and N/A (to signify the end of the treatment system). Note that Section 7A.1b is the only section of the Form R that is not chemical specific. It applies to the entire waste stream being treated. Section 7A.1c of each Form R should show the concentration of the specific chemical in the influent to the first step of the process (oil/water separation). For this example, assume chemicals A, B, and C are all present at concentrations greater than 1%. Therefore, code "1" should be entered. Section 7A.1d is also chemical specific. It applies to the efficiency of the entire system in destroying and/or removing the chemical for which you are preparing the Form R. You should enter 99% when filing for chemical A, 95% for chemical B, and 100% for chemical C. Finally, you should report whether the influent concentration and efficiency estimates are based on operating data for each chemical, as appropriate.

Chemical A

| 7A.1a | 7A.1b | | | 7A.1c | 7A.1d | 7A.1e | |
|---|---|---|---|---|---|---|---|
| | 1. P19 | 2. C11 | | | | | |
| W | 3. P11 | 4. N/A | 5. | 1 | 99 % | Yes | No |
| | 6. | 7. | 8. | | | X | |

Chemical B

| 7A.1a | 7A.1b | | | 7A.1c | 7A.1d | 7A.1e | |
|---|---|---|---|---|---|---|---|
| | 1. P19 | 2. C11 | | | | | |
| W | 3. P11 | 4. N/A | 5. | 1 | 95 % | Yes | No |
| | 6. | 7. | 8. | | | X | |

Chemical C

| 7A.1a | 7A.1b | | | 7A.1c | 7A.1d | 7A.1e | |
|---|---|---|---|---|---|---|---|
| | 1. P19 | 2. C11 | | | | | |
| W | 3. P11 | 4. N/A | 5. | 1 | 100 % | Yes | No |
| | 6. | 7. | 8. | | | X | |

Note that the quantity removed and/or destroyed is not reported in Section 7 and that the efficiency reported in Section 7A.1d refers to the amount of EPCRA Section 313 chemical destroyed and/or removed from the applicable waste stream. The amount actually destroyed should be reported in Section 8.6 (quantity treated on-site). For example, when completing the Form R for Chemical B you should report "0" pounds in Section 8.6 because the metal has been removed from the wastewater stream, but not actually destroyed. The quantity of Chemical B that is ultimately landfilled off-site should be reported in Sections 6.2 and 8.1. However, when completing the Form R for Chemical C you should report the entire quantity in Section 8.6 because raising the pH to 7.5 will completely destroy the mineral acid.

**Example 17: Reporting On-Site Energy Recovery**

One waste stream generated by your facility contains, among other chemicals, toluene and Freon 113. Threshold quantities are exceeded for both of these EPCRA Section 313 chemicals, and you would, therefore, submit two separate Form R reports. This waste stream is sent to an on-site industrial furnace that uses the heat generated in a thermal hydrocarbon cracking process at your facility. Because toluene has a significant heat value (17,440 BTU/pound) and the energy is recovered in an industrial furnace, the code "U02" would be reported in Section 7B for the Form R submitted for toluene.

However, as Freon 113 does not contribute any value for energy recovery purposes, the combustion of Freon 113 in the industrial furnace is considered waste treatment, not energy recovery. You would report Freon 113 as entering a waste treatment step (i.e., incineration), in Section 7A, column b.

combusted for energy recovery and should NOT be reported in this section. Energy recovery may take place only in an industrial kiln, furnace, or boiler.

**Energy Recovery Codes**

U01 Industrial Kiln
U02 Industrial Furnace
U03 Industrial Boiler
U09 Other Energy Recovery Methods

If your facility uses more than one on-site energy recovery method for the reported EPCRA Section 313 chemical, list the methods used in descending order (greatest to least) based on the amount of the EPCRA Section 313 chemical entering such methods.

**Section 7C On-Site Recycling Processes**

In Section 7C, you must report the recycling methods used on the EPCRA Section 313 chemical. If you do not conduct any on-site recycling of the reported EPCRA Section 313 chemical, check the Not Applicable (NA) box at the top of Section 7C.

In this section, use the codes below to report only the recycling methods in place at your facility that are applied to the EPCRA Section 313 chemical. Do not list any off-site recycling activities (Information about off-site recycling must be reported in Part II, Section 6, "Transfers of the Toxic Chemical in Wastes to Off-Site Locations.")

**On-Site Recycling Codes**

R11 Solvents/Organics Recovery – Batch Still Distillation
R12 Solvents/Organics Recovery – Thin-Film Evaporation
R13 Solvents/Organics Recovery – Fractionation
R14 Solvents/Organics Recovery – Solvent Extraction
R19 Solvents/Organics Recovery – Other
R21 Metals Recovery – Electrolytic
R22 Metals Recovery – Ion Exchange
R23 Metals Recovery – Acid Leaching
R24 Metals Recovery – Reverse Osmosis
R26 Metals Recovery – Solvent Extraction
R27 Metals Recovery – High Temperature
R28 Metals Recovery – Retorting
R29 Metals Recovery – Secondary Smelting
R30 Metals Recovery – Other
R40 Acid Regeneration
R99 Other Reuse or Recovery

If your facility uses more than one on-site recycling method for an EPCRA Section 313 chemical, enter the codes in the space provided in descending order (greatest to least) of the volume of the reported EPCRA Section 313 chemical recovered by each process. If your

facility uses more than ten separate methods for recycling the reported EPCRA Section 313 chemical on-site, then list the ten activities that recover the greatest amount of the EPCRA Section 313 chemical (again, in descending order).

## Section 8. Source Reduction and Recycling Activities

This section includes the data elements mandated by section 6607 of the Pollution Prevention Act of 1990 (PPA). Section 8 is a required section of Form R and must be completed.

In Section 8, you must provide information about source reduction activities and quantities of the EPCRA Section 313 chemicals managed as waste. For all appropriate questions, report only the quantity, in pounds, of the reported EPCRA Section 313 chemical itself. Do not include the weight of water, soil, or other waste constituents. When reporting on the metal compound categories, report only the amount of the parent metal as you do when estimating release amounts.

Sections 8.1 through 8.9 must be completed for each EPCRA Section 313 chemical. Section 8.10 must be completed only if a source reduction activity was newly implemented specifically (in whole or in part) for the reported EPCRA Section 313 chemical during the reporting year. Section 8.11 allows you to indicate if you have attached additional optional information on source reduction, recycling, or pollution control activities implemented at any time at your facility.

Sections 8.1 through 8.7 require reporting of quantities for the current reporting year, the prior year, and quantities anticipated in both the first year immediately following the reporting year and the second year following the reporting year (future estimates).

Beginning with the 1995 reporting year, facilities can use applicable, "NA," in Sections 8.1 through 8.7 to indicate that there is no on-site or off-site recycling, energy recovery, treatment, or release.

**Column A: Prior Year**

Quantities for Sections 8.1 through 8.7 must be reported for the year immediately preceding the reporting year in column A. For reports due July 1, 2000 (reporting year 1999), the prior year is 1998. Information available at the facility that may be used to estimate the prior year's quantities include the prior year's Form R submission, supporting documentation, and recycling, energy recovery, treatment, or disposal operating logs or invoices.

**Column B: Current Reporting Year**

Quantities for Sections 8.1 through 8.7 must be reported for the current reporting year (1999) in column B.

**Columns C and D: Following Year and Second Following Year**

Quantities for Sections 8.1 through 8.7 must be estimated for 2000 and 2001. EPA expects reasonable future quantity estimates using a logical basis. Information available at the facility to estimate quantities of the chemical expected during these years include planned source reduction activities, market projections, expected contracts, anticipated new product lines, company growth projections, and production capacity figures. Respondents should take into account protections available for trade secrets as provided in EPCRA Section 322 (42 USC 11042) for the chemical identity.

**Relationship to Other Laws**

The reporting categories for quantities recycled, used for energy recovery, treated, and disposed apply to completing Section 8 of Form R as well as to the rest of Form R. These categories are to be used only for TRI reporting. They are not intended for use in determining, under the Resource Conservation and Recovery Act (RCRA) Subtitle C regulations, whether a secondary material is a waste when recycled. These definitions also do not apply to the information that may be submitted in the Biennial Report required under RCRA. In addition, these definitions do not imply any future redefinition of RCRA terms and do not affect EPA's RCRA authority or authority under any other statute administered by EPA.

Differences in terminology and reporting requirements for EPCRA Section 313 chemicals reported on Form R and for hazardous wastes regulated under RCRA occur because EPCRA and the PPA focus on specific chemicals, while the RCRA regulations and the Biennial Report focus on waste streams that may include more than one chemical. For example, a RCRA hazardous waste containing an EPCRA Section 313 chemical is recycled to recover certain constituents of that waste, but not the toxic chemical reported under EPCRA section 313. The

EPCRA Section 313 chemical simply passes through the recycling process and remains in the residual from the recycling process, which is disposed. While the waste may be considered recycled under RCRA, the EPCRA Section 313 chemical constituent would be considered to be disposed for TRI purposes.

**Example 18: Reporting Future Estimates**

A pharmaceutical manufacturing facility uses an EPCRA Section 313 chemical in the manufacture of a prescription drug. During the reporting year (1999), the company received approval from the Food and Drug Administration to begin marketing their product as an over-the-counter drug beginning in 2000. This approval is publicly known and does not constitute confidential business information. As a result of this expanded market, the company estimates that sales and subsequent production of this drug will increase their use of the reported EPCRA Section 313 chemical by 30 percent per year for the two years following the reporting year. The facility treats the EPCRA Section 313 chemical on-site and the quantity treated is directly proportional to production activity. The facility thus estimates the total quantity of the reported EPCRA Section 313 chemical treated for the following year (2000) by adding 30 percent to the amount in column B (the amount for the current reporting year). The second following year (2001) figure can be calculated by adding an additional 30 percent to the amount reported in column C (the amount for the following year (2000) projection).

**Quantities Reportable in Sections 8.1 - 8.7**

Section 8 of Form R uses data collected to complete Part II, Sections 5 through 7. For this reason, Section 8 should be completed last. Sections 8.1, 8.3, 8.5, 8.7, and 8.8 use data collected to complete sections 5 and 6 of Form R. The relationship between sections 5, 6, and 8.8 to sections 8.1, 8.3, 8.5, and 8.7 are provided below in equation form.

**Section 8.1.** Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing [on-site or off-site] into the environment (including the abandonment of barrels, containers, and other closed receptacles)." This includes on-site releases in section 5 and off-site releases (including disposal) in section 6, but excludes quantities reported in sections 5 and 6 due to remedial actions, catastrophic events, or non-production related events (see the discussion on section 8.8.)

Metals and metal category compounds reported, 1) in section 6.2 as sent off-site for stabilization/solidification (M41-metals) or wastewater treatment (excluding POTWs) (M62-metals) and/or, 2) in section 6.1 – discharges to POTWs should be reported in section 8.1. These quantities should NOT be reported in section 8.7 because the metals are ultimately disposed.

**§ 8.1 = § 5 + § 6.2 (disposal) + § 6.1 (metals and metal category compounds only) - §8.8 (on-site release or off-site disposal due to catastrophic events)[1]**

**Sections 8.2 and 8.3.** These relate to a EPCRA Section 313 chemical or a mixture containing an EPCRA Section 313 chemical that is used for energy recovery on-site or is sent off-site for energy recovery, unless it is a commercially available fuel ( e.g., fuel oil no. 6). For the purposes of reporting on Form R, reportable on-site and off-site energy recovery is the combustion of a waste containing an EPCRA Section 313 chemical when:

(a) The combustion unit is integrated into an energy recovery system (i.e., industrial furnaces, industrial kilns, and boilers); and

(b) The EPCRA Section 313 chemical is combustible and has a significant heating value (e.g., 5000 BTU)

**§ 8.2 is reported in section 8 only**

**§ 8.3 = § 6.2 (energy recovery) - §8.8 (off-site energy recovery due to catastrophic events)[1]**

**Sections 8.4 and 8.5.** These relate to an EPCRA Section 313 chemical in a waste that is recycled on-site or is sent off-site for recycling.

**§ 8.4 is reported in section 8 only**

**§ 8.5 = § 6.2 (recycling) - § 8.8 (off-site recycling due to catastrophic events)[1]**

[1]§8.8 includes quantities of toxic chemical released on-site or managed as waste off-site due to remedial actions, catastrophic events, or one-time events not associated with the production processes.

**Section 8.6 and 8.7.** These relate to an EPCRA Section 313 chemical (except for metals and metal category compounds) or a mixture containing an EPCRA Section 313 chemical that is treated on-site or is sent to a POTW or other off-site location for waste treatment.

**§ 8.6 is reported in section 8 only**

**§ 8.7 = § 6.1 (excluding metal/metal category compounds) + § 6.2 (treatment) - § 8.8 (off-site treatment due to catastrophic events)[1]**

An EPCRA Section 313 chemical or an EPCRA Section 313 chemical in a mixture that is a waste under RCRA must be reported in Sections 8.1 through 8.7.

**8.8 Quantity Released to the Environment as a Result of Remedial Actions, Catastrophic Events, or One-Time Events Not Associated with Production Processes**

In Section 8.8, enter the total quantity of EPCRA Section 313 chemical released directly into the environment or sent off-site for recycling, energy recovery, treatment, or disposal during the reporting year due to any of the following events:

(1) remedial actions;

(2) catastrophic events such as earthquakes, fires, or floods; or

(3) one-time events not associated with normal or routine production processes.

These quantities should not be included in Sections 8.1 through 8.7

The purpose of this section is to separate quantities recycled, used for energy recovery, treated, or disposed that are associated with normal or routine production operations from those that are not. While all quantities released, recycled, treated, or disposed may ultimately be preventable, this section separates the quantities that are more likely to be reduced or eliminated by process-oriented source reduction activities from those releases that are largely unpredictable and are less amenable to such source reduction activities. For example, spills that occur as a routine part of production operations and could be reduced or eliminated by improved handling, loading, or unloading procedures are included in the quantities reported in Section 8.1 through 8.7 as appropriate. A total loss of containment resulting from a tank rupture caused by a tornado would be included in the quantity reported in Section 8.8.

Similarly, the amount of an EPCRA Section 313 chemical cleaned up from spills resulting from normal operations during the reporting year would be included in the quantities reported in Sections 8.1 through 8.7. However, the quantity of the reported EPCRA Section 313 chemical generated from a remedial action (e.g., RCRA corrective action) to clean up the environmental contamination resulting from past practices should be reported in Section 8.8 because they cannot currently be addressed by source reduction methods. A remedial action for purposes of Section 8.8 is a waste cleanup (including RCRA and CERCA operations) within the facility boundary. Most remedial activities involve collecting and treating contaminated material.

Also, releases caused by catastrophic events are to be incorporated into the quantity reported in Section 8.8. Such releases may be caused by natural disasters (e.g., hurricanes and earthquakes) or by large-scale accidents (e.g., fires and explosions). In addition, releases due to one-time events not associated with production (e.g., terrorist bombing) are to be included in Section 8.8. These amounts are not included in the quantities reported in Sections 8.1 through 8.7 because such releases are generally unanticipated and cannot be addressed by routine process-oriented accident prevention techniques By checking your documentation for calculating estimates made for Part II, Section 5, "Quantity of the Toxic Chemical Entering Each Environmental Medium On-site," you may be able to identify release amounts from the above sources. Emergency notifications under CERCA and EPCRA as well as accident histories required under the Clean Air Act may provide useful information. You should also check facility incident reports and maintenance records to identify one-time or catastrophic events.

Note: While the information reported in Section 8.8 represents only remedial, catastrophic, or one-time events not associated with production processes, Section 5 of Form R (on-site releases to the environment) and Section 6 (off-site transfers for further waste management), must include all on-site releases and transfers as appropriate, regardless of whether they arise from catastrophic, remedial, or routine process operations.

**Example 19: Quantity Released to the Environment as a Result of Remedial Actions, Catastrophic Events, or One-Time Events Not Associated with Production Processes.**

A chemical manufacturer produces an EPCRA Section 313 chemical in a reactor that operates at low pressure. The reactants and the EPCRA Section 313 chemical product are piped in and out of the reactor at monitored and controlled temperatures. During normal operations, small amounts of fugitive emissions occur from the valves and flanges in the pipelines.

Due to a malfunction in the control panel (which is state-of-the-art and undergoes routine inspection and maintenance), the temperature and pressure in the reactor increase, the reactor ruptures, and the EPCRA Section 313 chemical is released. Because the malfunction could not be anticipated and, therefore, could not be reasonably addressed by specific source reduction activities, the amount released is included in Section 8.8. In this case, much of the EPCRA Section 313 chemical is released as a liquid and pools on the ground. It is estimated that 1,000 pounds of the EPCRA Section 313 chemical pooled on the ground and was subsequently collected and sent off-site for treatment. In addition, it is estimated that another 200 pounds of the EPCRA Section 313 chemical vaporized directly to the air from the rupture. The total amount reported in Section 8.8 is the 1,000 pounds that pooled on the ground (and subsequently sent off-site), plus the 200 pounds that vaporized into the air, a total of 1,200 pounds. The quantity sent off-site must also be reported in Section 6 (but not in Section 8.7) and the quantity that vaporized must be reported as a fugitive emission in Section 5 (but not in Section 8.1).

**Avoid Double-Counting in Sections 8.1 Through 8.8**

Do not double- or multiple-count quantities in Sections 8.1 through 8.7. The quantities reported in each of those sections must be mutually exclusive. Do not multiple-count quantities entering sequential reportable activities.

Do not include in Sections 8.1 through 8.7 any quantities of the EPCRA Section 313 chemical released into the environment due to remedial actions; catastrophic events such as earthquakes, fires, or floods; or unanticipated one-time events not associated with the production process such as a drunk driver crashing his/her car into a drum storage area. These quantities should be reported in Section 8.8 only. For example, 10,000 pounds of diaminoanisole sulfate is released due to a catastrophic event and is subsequently treated off-site. The 10,000 pounds is reported in Section 8.8, but the amount subsequently treated off-site is not reported in Section 8.7.

**8.9 Production Ratio or Activity Index**

For Section 8.9, you must provide a ratio of reporting year production to prior year production, or provide an "activity index" based on a variable other than production that is the primary influence on the quantity of the reported EPCRA Section 313 chemical recycled, used for energy recovery, treated, or released. The ratio or index must be reported to the nearest tenths or hundredths place (i.e., one or two digits to the right of the decimal point). If the manufacture or use of the reported EPCRA Section 313 chemical began during the current reporting year, enter not applicable, "NA," as the production ratio or activity index. Note, this is not to be reported as a percent (i.e., report 1.10 for a 10% increase, not 110%).

It is important to realize that if your facility reports more than one reported EPCRA Section 313 chemical, the production ratio or activity index may vary for different chemicals. For facilities that manufacture reported EPCRA Section 313 chemicals, the quantities of the EPCRA Section 313 chemical(s) produced in the current and prior years provide a good basis for the ratio because that is the primary business activity associated with the reported EPCRA Section 313 chemical(s). In most cases, the production ratio or activity index must be based on some variable of production or activity rather than on EPCRA Section 313 chemical or material usage. Indices based on EPCRA Section 313 chemical or material usage may reflect the effect of source reduction activities rather than changes in business activity. EPCRA Section 313 chemical or material usage is therefore not a basis to be used for the production ratio or activity index where the EPCRA Section 313 chemical is "otherwise-used" (i.e., non-incorporative activities such as extraction solvents, metal degreasers, etc.).

**Example 20: Avoiding Double-Counting Quantities in Sections 8.1 through 8.7**

For example, 5,000 pounds of an EPCRA Section 313 chemical enters a treatment operation. Three thousand pounds of the EPCRA Section 313 chemical exits the treatment operation and then enters a recycling operation. Five hundred pounds of the EPCRA Section 313 chemical are in residues from the recycling operation that is subsequently sent off-site for disposal. These quantities would be reported as follows in Section 8:

Section 8.1: 500 pounds disposed
Section 8.4: 2,500 pounds recycled
Section 8.6: 2,000 pounds treated (5,000 that initially entered – 3,000 that subsequently entered recycling)

*To report that 5,000 pounds were treated, 3,000 pounds were recycled, and that 500 pounds were sent off-site for disposal would result in over-counting the quantities of EPCRA Section 313 chemical recycled, treated, and disposed by 3,500 pounds.*

While several methods are available to the facility for determining this data element, the production ratio or activity index must be based on the variable that most directly affects the quantities of the EPCRA Section 313 chemical recycled, used for energy recovery, treated, or released. Examples of methods available include:

(1) Amount of EPCRA Section 313 chemical manufactured in 1998 divided by the amount of EPCRA Section 313 chemical manufactured in 1997; or

(2) Amount of product produced in 1998 divided by the amount of product produced in 1997.

### 8.10 Did Your Facility Engage in Any Source Reduction Activities for This Chemical During the Reporting Year?

If your facility engaged in any source reduction activity for the reported EPCRA Section 313 chemical during the reporting year, report the activity that was implemented and the method used to identify the opportunity for the activity implemented. If your facility did not engage in any source reduction activity for the reported EPCRA Section 313 chemical, enter not applicable, "NA," in Section 8.10.1 and answer Section 8.11.

Source reduction means any practice that:

- ❑ Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, energy recovery, treatment, or disposal; and

- ❑ Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

The term includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

The term source reduction does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity that itself is not integral to and necessary for the production of a product or the providing of a service.

Source reduction activities do not include recycling, using for energy recovery, treating, or disposing of an EPCRA Section 313 chemical. Report in this section only the source reduction activities implemented to reduce or eliminate the quantities reported in Sections 8.1 through 8.7. The focus of the section is only those activities that are applied to reduce routine or reasonably anticipated releases and quantities of the reported EPCRA Section 313 chemical recycled, treated, used for energy recovery, or disposed. Do not report in this section any activities taken to reduce or eliminate the quantities reported in Section 8.8.

**Source Reduction Activities**

You must enter in the first column of Section 8.10, "Source Reduction Activities," the appropriate code(s) indicating the type of actions taken to reduce the amount of the reported EPCRA Section 313 chemical released (as reported in Section 8.1), used for energy recovery (as reported in Sections 8.2-8.3), recycled (as reported in Sections 8.4-8.5), or treated (as reported in Sections 8.6-8.7). The list of codes below includes many, but not all, of the codes provided in the RCRA biennial report. Remember that source reduction activities include only those actions or techniques that reduce or eliminate

**Example 21: Determining a Production Ratio**

Your facility's only use of toluene is as a paint carrier for a painting operation. You painted 12,000 refrigerators in the current reporting year and 10,000 refrigerators during the preceding year. The production ratio for toluene in this case is 1.2 (12,000/10,000) because the number of refrigerators produced is the primary factor determining the quantity of toluene to be reported in Sections 8.1 through 8.7.

A facility manufactures inorganic pigments, including titanium dioxide. Hydrochloric acid (acid aerosols) is produced as a waste byproduct during the production process. An appropriate production ratio for hydrochloric acid (acid aerosols) is the annual titanium dioxide production, not the amount of byproduct generated. If the facility produced 20,000 pounds of titanium dioxide during the reporting year and 26,000 pounds in the preceding year, the production ratio would be 0.77 (20,000/26,000).

**Example 22: Determining an Activity Index**

Your facility manufactures organic dyes in a batch process. Different colors of dyes are manufactured, and between color changes, all equipment must be thoroughly cleaned with solvent containing glycol ethers to reduce color carryover. During the preceding year, the facility produced 2,000 pounds of yellow dye in January, 9,000 pounds of green dye for February through September, 2,000 pounds of red dye in November, and another 2,000 pounds of yellow dye in December. This adds up to a total of 15,000 pounds and four color changeovers. During the reporting year, the facility produced 10,000 pounds of green dye during the first half of the year and 10,000 pounds of red dye in the second half. If your facility uses glycol ethers in this cleaning process only, an activity index of 0.5 (based on two color changeovers for the reporting year divided by four changeovers for the preceding year) is more appropriate than a production ratio of 1.33 (based on 20,000 pounds of dye produced in the current year divided by 15,000 pounds in the preceding year). In this case, an activity index, rather than a production ratio, better reflects the factors that influence the amount of solvent recycled, used for energy recovery, treated, or released.

A facility that manufactures thermoplastic composite parts for aircraft uses toluene as a wipe solvent to clean molds. The solvent is stored in 55-gallon drums and is transferred to 1-gallon dispensers. The molds are cleaned on an as-needed basis that is not necessarily a function of the parts production rate. Operators cleaned 5,200 molds during the reporting year, but only cleaned 2,000 molds in the previous year. An activity index of 2.6 (5,200/2,000) represents the activities involving toluene usage in the facility. If the molds were cleaned after 1,000 parts were manufactured, a production ratio would equal the activity index and either could be used as the basis for the index.

A facility manufactures surgical instruments and cleans the metal parts with 1,1,1-trichloromethane in a vapor degreaser. The degreasing unit is operated in a batch mode and the metal parts are cleaned according to an irregular schedule. The activity index can be based upon the total time the metal parts are in the degreasing operation. If the degreasing unit operated 3,900 hours during the reporting year and 3,000 hours the prior year, the activity index is 1.3 (3,900/3,000).

**Example 23: "NA" is Entered as the Production Ratio or Activity Index**

Your facility began production of semiconductor chips during this reporting year. Perchloroethylene is used as a cleaning solvent for this operation and this is the only use of the EPCRA Section 313 chemical in your facility. You would enter not applicable, "NA," in Section 8.9 because you have no basis of comparison in the prior year for the purposes of developing the activity index.

**Example 24: Determining the Production Ratio Based on a Weighted Average**

At many facilities, a reported EPCRA Section 313 chemical is used in more than one production process. In these cases, a production ratio or activity index can be estimated by weighting the production ratio for each process based on the respective contribution of each process to the quantity of the reported EPCRA Section 313 chemical recycled, used for energy recovery, treated, or disposed.

Your facility paints bicycles with paint containing toluene. Sixteen thousand bicycles were produced in the reporting year and 14,500 were produced in the prior year. There were no significant design modifications that changed the total surface area to be painted for each bike. The bicycle production ratio is 1.1 (16,000/14,500). You estimate 12,500 pounds of toluene recycled, used for energy recovery, treated, or released as a result of bicycle production. Your facility also uses toluene as a solvent in a glue that is used to make components and add-on equipment for the bicycles. Thirteen thousand components were manufactured in the reporting year as compared to 15,000 during the prior year. The production ratio for the components using toluene is 0.87 (13,000/15,000). You estimate 1,000 pounds of toluene treated, recycled, used for energy recovery, or released as a result of components production. A production ratio can be calculated by weighting each of the production ratios based on the relative contribution each has to the quantities of toluene treated, recycled, used for energy recovery, or released during the reporting year (13,500 pounds). The production ratio is calculated as follows:

$$\text{Production ratio} = 1.1 \times (12{,}500/13{,}500) + 0.87 \times (1{,}000/13{,}500) = 1.08$$

**Example 25: Source Reduction**

A facility assembles and paints furniture. Both the glue used to assemble the furniture and the paints contain EPCRA Section 313 chemicals. By examining the gluing process, the facility discovered that a new drum of glue is opened at the beginning of each shift, whether the old drum is empty or not. By adding a mechanism that prevents the drum from being changed before it is empty, the need for disposal of the glue is eliminated at the source. As a result, this activity is considered source reduction. The painting process at this facility generates a solvent waste, that contains an EPCRA Section 313 chemical that is collected and recovered. The recovered solvent is used to clean the painting equipment. The recycling activity does not reduce the amount of EPCRA Section 313 chemical recycled, and therefore is not considered a source reduction activity.

the amounts of the EPCRA Section 313 chemical reported in Sections 8.1 through 8.7. Actions taken to recycle, combust for energy recovery, treat, or dispose of the EPCRA Section 313 chemical are not considered source reduction activities.

**Source Reduction Activity Codes:**

Good Operating Practices

- W13 Improved maintenance scheduling, record keeping, or procedures
- W14 Changed production schedule to minimize equipment and feedstock changeovers
- W19 Other changes made in operating practices

Inventory Control

- W21 Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life
- W22 Began to test outdated material — continue to use if still effective
- W23 Eliminated shelf-life requirements for stable materials
- W24 Instituted better labeling procedures
- W25 Instituted clearinghouse to exchange materials that would otherwise be discarded
- W29 Other changes made in inventory control

Spill and Leak Prevention

- W31 Improved storage or stacking procedures
- W32 Improved procedures for loading, unloading, and transfer operations
- W33 Installed overflow alarms or automatic shut-off valves

W35 Installed vapor recovery systems
W36 Implemented inspection or monitoring program of potential spill or leak sources
W39 Other changes made in spill and leak prevention

Raw Material Modifications

W41 Increased purity of raw materials
W42 Substituted raw materials
W49 Other raw material modifications made

Process Modifications

W51 Instituted re-circulation within a process
W52 Modified equipment, layout, or piping
W53 Used a different process catalyst
W54 Instituted better controls on operating bulk containers to minimize discarding of empty containers
W55 Changed from small volume containers to bulk containers to minimize discarding of empty containers
W58 Other process modifications made

Cleaning and Decreasing

W59 Modified stripping/cleaning equipment
W60 Changed to mechanical stripping/cleaning devices (from solvents or other materials)
W61 Changed to aqueous cleaners (from solvents or other materials)
W63 Modified containment procedures for cleaning units
W64 Improved draining procedures
W65 Redesigned parts racks to reduce drag out
W66 Modified or installed rinse systems
W67 Improved rinse equipment design
W68 Improved rinse equipment operation
W71 Other cleaning and decreasing modifications made

Surface Preparation and Finishing

W72 Modified spray systems or equipment
W73 Substituted coating materials used
W74 Improved application techniques
W75 Changed from spray to other system
W78 Other surface preparation and finishing modifications made

Product Modifications

W81 Changed product specifications
W82 Modified design or composition of product
W83 Modified packaging
W89 Other product modifications made

In columns a through c of Section 8.10, the "Methods to Identify Activity", you must enter one or more of the following code(s) that correspond to those internal and external method(s) or information sources you used to identify the possibility for a source reduction activity implementation at your facility. If more than three methods were used to identify the source reduction activity, enter only the three codes that contributed most to the decision to implement the activity.

**Methods to Identify Activity**

T01 Internal pollution prevention opportunity audit(s)
T02 External pollution prevention opportunity audit(s)
T03 Materials balance audits
T04 Participative team management
T05 Employee recommendation (independent of a formal company program)
T06 Employee recommendation (under a formal company program)
T07 State government technical assistance program
T08 Federal government technical assistance program
T09 Trade association/industry technical assistance program
T10 Vendor assistance
T11 Other

### 8.11 Is Additional Optional Information on Source Reduction, Recycling, or Pollution Control Activities Included with this Report?

Check "Yes" for this data element if you have attached to this report any additional optional information on source reduction, recycling, or pollution control activities you have implemented in the reporting year or in prior years for the reported EPCRA Section 313 chemical. If you are not including additional information, check "No."

If you submit additional optional information, try to limit this information to one page that summarizes the source reduction, recycling, or pollution control activities. If there is a contact person at the facility, other than the technical or public contact provided in Part I, Section 4, the summary page should include that person's name and telephone number for individuals who wish to obtain further information about those activities. Also submit a copy of this additional information to the appropriate state agency as part of the Form R submittal to that agency.

# D. Facility Eligibility Determination for Alternate Threshold and for Reporting on EPA Form A

This section will help to determine whether you can submit the simplified Form A report. The criteria are based on total annual reportable amount of listed chemical or chemical category and the amount manufactured, processed, or otherwise used.

## D.1 Alternate Threshold

On November 30, 1994, EPA published a final rule (59 FR 61488) that provides qualifying facilities a reduced reporting option. Eligible facilities wishing to take advantage of this reduced reporting option may report on a simplified two-page form referred to as Form A and do not have to use Form R. The "TRI Alternate Threshold for Facilities with Low Annual Reportable Amounts," provides facilities otherwise meeting EPCRA section 313 reporting thresholds the option of reporting on Form A provided that they do not exceed 500 pounds for the total annual reportable amount (defined below) for that chemical, and that their amounts manufactured or processed or otherwise used do not exceed one-million pounds. As with determining section 313 reporting thresholds, amounts manufactured, processed, or otherwise used are to be considered independently. This modification does not apply to forms being submitted on or before July 1, 1995 (covering the 1994 reporting year). If you fill out a Form A for an EPCRA Section 313 chemical do not fill out a Form R for that same chemical.

## D.2 What is the Form A (Certification Statement)?

The Form A, which is described as the "certification statement" in 59 FR 61488, is a simplified form of reporting and is intended as a means to reduce the compliance burden associated with EPCRA section 313. The Form A must be submitted on an annual basis for each eligible chemical. Facilities wishing to take advantage of this burden reducing option should submit a Form A for such chemicals meeting the conditions described below, and should not submit a Form R to the EPCRA Reporting Center for that chemical. The information submitted on the Form A includes facility identification information and the chemical or chemical category identity. The information submitted on the Form A will appear in the TRI data base in the same manner that information submitted on Form R appears. An approved Form A and a magnetic version of reporting have been included in this 1999 Reporting Forms and Instructions package.

## D.3 What is the Total Annual Reportable Amount?

For the purpose of this optional reporting modification, the annual reportable amount is equal to the combined total quantities released at the facility, disposed within the facility, treated at the facility (as represented by amounts destroyed or converted by treatment processes), recovered at the facility as a result of recycle operations, combusted for the purpose of energy recovery at the facility, and amounts transferred from the facility to off-site locations for the purpose of recycle, energy recovery, treatment, and/or disposal. These volumes correspond to the sum of amounts reportable for data elements on EPA Form R (EPA Form 9350-1; Rev. 04/97) as Part II column B of section 8, data elements 8.1 (quantity released), 8.2 (quantity used for energy recovery on-site), 8.3 (quantity used for energy recovery off-site), 8.4 (quantity recycled on-site), 8.5 (quantity recycled off-site), 8.6 (quantity treated on-site), and 8.7 (quantity treated off-site).

## D.4 Recordkeeping

Each owner or operator who determines that they are eligible, and wishes to apply the alternate threshold to a particular chemical, must retain records substantiating this determination for a period of three years from the date of the submission of the Form A. These records must include sufficient documentation to support calculations as well as the calculations made by the facility that confirm their eligibility for each chemical for which the alternate threshold was applied.

A facility that fits within the category description, and manufactures, processes or otherwise uses no more than one-million pounds of an EPCRA Section 313 chemical annually, and whose owner/operator elects to take advantage of the alternate threshold is not considered an EPCRA section 313 covered facility for that chemical for the purpose of submitting a Form R. This determination may provide further regulatory relief from other federal or state regulations that apply to facilities on the basis of their EPCRA section 313 reporting status. A facility will need to reference other applicable regulations to determine if their actual requirements may be affected by this reporting modification.

## D.5 Multi-establishment Facilities

For the purposes of using Form A, the facility must also make its determination based upon the entire facility's

operations including all of its establishments (see 59 FR 61488 for greater detail). If the facility as a whole is able to take advantage of the alternate threshold, a single Form A is required. The eligibility to submit a Form A must be made on a whole facility determination. Thus, all of the information necessary to make the determination must be assembled to the facility level.

## D.6 Trade Secrets

EPA is requiring that a facility submit a unique Form A for each EPCRA Section 313 chemical meeting the conditions of the alternate threshold. Facilities may assert a trade secrecy claim for a chemical identity on the Form A as on the Form R. Reports submitted on a per chemical basis protect against the disclosure of trade secrets. Form As with trade secrecy claims, like Form Rs with similar claims, will be separately handled upon receipt to protect against disclosure. Commingling trade secret chemical identities with non-trade secret chemical identities on the same submission increases the risk of disclosure.

## D.7 Metals and Metal Category Compounds

For metal category compounds, the category level of 500 pounds applies to the amount of parent metal waste that is reported on Form R, but the thresholds apply to the amount of metal compounds manufactured, processed, or otherwise used. For Form R reporting involving both listed parent metals and associated metal compounds, the one million pound alternate threshold must be applied separately to the listed parent metal and the associated metal compound(s). Threshold determinations must be made independently for each because they are separately listed EPCRA Section 313 chemicals.

- ❑ If the threshold is exceeded for the listed parent metal but not the associated metal compounds, then the releases of metal reported on Form R for the parent metal should not include the releases from the metal compounds.

- ❑ If both the parent metal and the associated metal compounds exceed the alternate threshold, then the facility has the option of filing one Form R for both, using the metal category compound name and reporting total releases based on parent metal content.

- ❑ If neither the parent metal nor the associated metal compounds exceed the alternate threshold, then the facility should file a Form A for each, since the reporting thresholds must be applied to each listed parent metal and all compounds in the associated compound category. EPA believes it is appropriate to make this distinction between filing the Form R and Form A because the Form R accounts for amounts of metal released or otherwise managed and Form A verifies that the alternate threshold for each listed chemical or chemical category has not been exceeded.

Similarly, separate Form As should be submitted for all other listed chemicals even if EPA allows one Form R to be filed for two or more listed chemicals, e.g., o-xylene, p-xylene and xylene (mixed isomers). For example, if a facility processes in three separate process streams, xylene (mixed isomers), o-xylene, and p-xylene, and exceeds the conditions of the alternate threshold for each of these listed substances, the facility may combine the appropriate information on the o-xylene, p-xylene, and xylene (mixed isomers) into one Form R.

Facilities that process o-xylene, p-xylene, and xylene (mixed isomers) in separate process streams and do not exceed the conditions of the alternate threshold for one or more of the compounds, may submit a separate Form A for each of the forms of xylene meeting the alternate threshold and report on Form R for those forms that do not. Similar to reporting on the parent metals and their associated category compounds described above, facilities that separately process all types (i.e., isomers) of xylene with individual activity levels within the conditions of the alternate threshold should file a separate Form A for each type of xylene.

# E. Instructions for Completing EPA Form A

The following are specific instructions for completing each part of EPA Form A. All of the facility identification data elements that appear on Form A are a subset of and are identical to those on Form R except for the content of the statement to be signed by an authorized individual. The number designations of the parts and sections of these instructions correspond to those in Form R unless otherwise indicated. Beginning with the 1998 reporting year, facilities may enter as many chemicals as are eligible on a single Form A.

## For all parts of Form A:

- ❑ Type or print information on the form in the format requested. Use black ink. (Using blue ink for the certification signature is suggested as a means of indicating its originality.)
- ❑ All information on the Form A is required.
- ❑ Do not leave items in Parts I and II on the Form A blank unless specifically directed to do so; if an item does not apply to you, enter not applicable, NA, in the space provided. If your information does not fill all the spaces provided for a type of information, enter NA, in the next blank space in the sequence.
- ❑ Do not submit an incomplete form. The certification statement (Part I, Section 3) specifies that the report is complete as submitted. See page 1 of these instructions for the definition of a complete submission.

## Part I. Facility Identification Information

### Section 1. Reporting Year

This is the calendar year to which the reported information applies, not the year in which you are submitting the report. Information for the 1999 reporting year must be submitted on or before July 1, 2000.

### Section 2. Trade Secret Information

**2.1 Are you claiming the EPCRA Section 313 chemical identified on page 2 trade secret?**

If facilities wish to report more than one eligible chemical on the same Form A, then they are not able to make trade secrecy claims. Any trade secrecy claims must be made on a separate form, and then the process is the same as using the Form R and as described in the following instructions.

The specific identity of the EPCRA Section 313 chemical being reported in Part II, Section 1, may be designated as a trade secret. If you are making a trade secrecy claim, mark "yes" and proceed to Section 2.2. Only check "yes" if you manufacture, process, or otherwise use the EPCRA Section 313 chemical whose identity is a trade secret. (See page 2 of these instructions for specific information on trade secrecy claims.) If you checked "no," proceed to Section 3; do not answer Section 2.2.

**2.2 If "yes" in 2.1, is this copy sanitized or unsanitized?**

Check "sanitized" if this copy of the report is the public version that does not contain the EPCRA Section 313 chemical identity but does contain a generic name in its place, and you have claimed the EPCRA Section 313 chemical identity trade secret in Part I, Section 2.1. Otherwise, check "unsanitized."

### Section 3. Certification

The Form A must be signed by the owner or operator or a senior official with management responsibility for the person (or persons) completing the form. The owner, operator, or official must certify the accuracy and completeness of the information reported on the form by signing and dating the Form A. Each report must contain an original signature. Unlike the certification statement contained on Form R, the certification statement provided on the Alternate Threshold Form A pertains to the facility's eligibility of having met the conditions as described in Section D or in the *Federal Register* 59 FR 61488 (November 30, 1994). Print or type in the space provided the name and title of the person who signs the statement. This certification statement applies to all the information supplied on the form and should be signed only after the form has been completed.

### Section 4. Facility Identification

**4.1 Facility Name, Location, and TRI Facility Identification Number**

Enter the name of your facility (plant site name or appropriate facility designation), street address, mailing address, city, county, state, and zip code in the space provided. Do not use a post office box number as the street address. The street address provided should be the location where the EPCRA Section 313 chemicals are

manufactured, processed, or otherwise used. If your mailing address and street address are the same, enter NA in the space for the mailing address. Note that the mailing address is provided first, followed by the street address.

If you have submitted a Form R for previous reporting years, a TRI Facility Identification Number has been assigned to your facility. If you cannot locate your TRI Facility Identification Number, please contact the Emergency Planning and Community Right-to-Know Information Hotline (see page 4).

Enter "NA" in the space for the TRI Facility Identification Number if your facility has never filed a Form A (certification statement) or a Form R. If you have previously submitted a Form A or a Form R, use the TRI Facility Identification Number that you have been assigned. If you previously submitted a Form A or a Form R, but do not know what it is, contact the EPCRA Hotline. If your facility has moved, do not enter your TRI facility identification number, enter NEW FACILITY.

### 4.2 Federal Facility Designation

On August 3, 1993, Executive Order 12856 was signed that directs federal facilities to comply with Right-To-Know Laws and Pollution Prevention Requirements. Please indicate in 4.2.C. if the reporting facility is a federal facility. If the reporting facility is not a federal facility, leave this space blank. Form R allows a facility to report multiple submissions for the same chemical if the facility is composed of several distinct establishments. This data element provides the option of reporting full or partial facility information on Form R, however, this is not applicable for those facilities taking advantage of the Alternate Threshold and Form A. An explanation of this is provided in Section D.

### 4.3 Technical Contact

Enter the name and telephone number (including area code) of a technical representative whom EPA or State officials may contact for clarification of the information reported on Form A. This contact person does not have to be the same person who prepares the report or signs the Form A and does not necessarily need to be someone at the location of the reporting facility; however, this person must be familiar with the details of the report so that he or she can answer questions about the information provided.

### 4.4 Intentionally Left Blank

### 4.5 Standard Industrial Classification (SIC) Code

Enter the appropriate four-digit primary Standard Industrial Classification (SIC) code for your facility. Table I lists the SIC codes 10 (except 1011, 1081, and 1094), 12 (except 1241), 20–39, 4911 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4953 (limited to facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 *et seq.*), 5169, 5171, and 7389 (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis). If the report covers more than one establishment, enter the primary four-digit SIC code for each establishment starting with the primary SIC code for the entire facility. You are required to enter SIC codes only for those establishments within the facilities that fall within SIC codes 10 (except 1011, 1081, and 1094), 12 (except 1241), 20–39, 4911 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4953 (limited to facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 *et seq.*), 5169, 5171, and 7389 (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis). If you do not know your SIC code, consult the 1987 SIC Manual (see page 5).

The North American Industry Classification System (NAICS), is a new economic classification system that will replace the 1987 SIC code system. EPA will address the SIC code change, as it relates to EPCRA, in an upcoming Federal Register notice. This upcoming change does NOT affect the 1999 EPCRA section 313 reporting.

### 4.6 Latitude and Longitude

Enter the latitudinal and longitudinal coordinates of your facility. Sources of these data include EPA permits (e.g., NPDES permits), county property records, facility blueprints, and site plans. Instructions on how to determine these coordinates can be found in Appendix E. Enter only numerical data. Do not preface numbers with letters such as N, S, E, or W to denote the hemisphere. Latitude and longitude coordinates of your facility are very important for pinpointing the location of reporting facilities and are required elements on the Form A. EPA encourages facilities to make the best possible measurements when determining latitude and longitude. As with any other data field, missing, suspect, or incorrect data may generate a Notice of Technical Error to be issued to the facility. (See Appendix C: Common Errors in Completing Form R Reports and Making Data Available).

### 4.7 Dun & Bradstreet Number(s)

Enter the nine-digit number assigned by Dun & Bradstreet (D & B) for your facility or each establishment within your facility. These numbers code the facility for financial purposes. This number may be available from your facility's treasurer or financial officer. You can also obtain the numbers from your local D & B office (check the telephone book White Pages). If a facility does not subscribe to the D & B service, a "support number" can be obtained from the center located in Allentown, Pennsylvania, at (215) 882-7748 (8:30 am to 8:00 pm, Eastern Time). If none of your establishments has been assigned a D & B number, enter NA in box (a). If only some of your establishments have been assigned Dun & Bradstreet numbers, enter those numbers in Part I, section 4.7.

### 4.8 EPA Identification Number(s)

The EPA I.D. Number is a 12-character number assigned to facilities covered by hazardous waste regulations under RCRA. Facilities not covered by RCRA are not likely to have an assigned I.D. Number. If your facility is not required to have an I.D. Number, enter not applicable, NA, in box (a). If your facility has been assigned EPA Identification Numbers, you must enter those numbers in the spaces provided in Section 4.8.

### 4.9 Facility NPDES Permit Number(s)

Enter the numbers of any permits your facility holds under the National Pollutant Discharge Elimination System (NPDES) even if the permit(s) do not pertain to the EPCRA Section 313 chemical being reported. This nine-character permit number is assigned to your facility by EPA or the State under the authority of the Clean Water Act. If your facility does not have a permit, enter NA, in Section 4.9a.

### 4.10 Underground Injection Well Code (UIC) Identification Number(s)

If your facility has a permit to inject a waste containing the EPCRA Section 313 chemical into Class 1 deep wells, enter the 12-digit Underground Injection Well Code (UIC) identification number assigned by EPA or by the State under the authority of the Safe Drinking Water Act. If your facility does not hold such a permit(s), enter NA in Section 4.10a. You are only required to provide the UIC number for wells that receive the EPCRA Section 313 chemical being reported.

## Section 5. Parent Company Information

You must provide information on your parent company. For purposes of the Form A, a parent company is defined as the highest level company, located in the United States, that directly owns at least 50 percent of the voting stock of your company. If your facility is owned by a foreign entity, enter NA in this space. Corporate names should be treated as parent company names for companies with multiple facility sites. For example, the Bestchem Corporation is not owned or controlled by any other corporation but has sites throughout the country whose names begin with Bestchem. In this case, Bestchem Corporation would be listed as the parent company. Note that a facility that is a 50:50 joint venture is its own parent company.

### 5.1 Name of Parent Company

Enter the name of the corporation or other business entity that is your ultimate US parent company. If your facility has no parent company, check the NA box.

### 5.2 Parent Company's Dun & Bradstreet Number

Enter the Dun & Bradstreet (D & B) Number for your ultimate US parent company, if applicable. The number may be obtained from the treasurer or financial officer of

the company. If your parent company does not have a D&B number, check the NA box.

# Part II. Chemical Identification

Reporting on the Alternate Threshold Form A for metals, metal category compounds, and mixed isomers differs somewhat from Form R reporting. Please refer to Section D for these guidelines.

## Section 1. Toxic Chemical Identity

(Important: DO NOT complete this section if you completed Section 2 of Part II below.)

### 1.1 CAS Number

Enter the Chemical Abstracts Service (CAS) registry number in Section 1.1 exactly as it appears in Table II for the chemical being reported. CAS numbers are cross-referenced with an alphabetical list of chemical names in Table II of these instructions. If you are reporting one of the EPCRA Section 313 chemical categories in Table II, part c (e.g., chromium compounds), enter the applicable category code in the CAS number space. EPCRA Section 313 chemical category codes are listed below and can also be found in Table II, part c and Appendix B-1.

EPCRA Section 313 Chemical Category Codes

| | |
|---|---|
| N010 | Antimony compounds |
| N020 | Arsenic compounds |
| N040 | Barium compounds |
| N050 | Beryllium compounds |
| N078 | Cadmium compounds |
| N084 | Chlorophenols |
| N090 | Chromium compounds |
| N096 | Cobalt compounds |
| N100 | Copper compounds |
| N106 | Cyanide compounds |
| N120 | Diisocyanates |
| N171 | Ethylenebisdithiocarbamic acid, salts and esters (EBDCs) |
| N230 | Certain glycol ethers |
| N420 | Lead compounds |
| N450 | Manganese compounds |
| N458 | Mercury compounds |
| N495 | Nickel compounds |
| N503 | Nicotine and salts |
| N511 | Nitrate compounds (water dissociable; reportable only when in aqueous solution) |
| N575 | Polybrominated biphenyls (PBBs) |
| N583 | Polychlorinated alkanes (C10 to C13) |
| N590 | Polycyclic aromatic compounds (PACs) |
| N725 | Selenium compounds |
| N740 | Silver compounds |
| N746 | Strychnine and salts |
| N760 | Thallium compounds |
| N874 | Warfarin and salts |
| N982 | Zinc compounds |

If you are making a trade secret claim, you must report the CAS number or category code on your unsanitized Form A and unsanitized substantiation form. Do not include the CAS number or category code on your sanitized Form A or sanitized substantiation form.

### 1.2 EPCRA Section 313 Chemical or Chemical Category Name

Enter the name of the EPCRA Section 313 chemical or chemical category exactly as it appears in Table II. If the EPCRA Section 313 chemical name is followed by a synonym in (parentheses), report the chemical by the name that directly follows the CAS number (i.e., not the synonym). If the EPCRA Section 313 chemical identity is actually a product trade name (e.g., dicofol), the 9th Collective Index name is listed below it in brackets. You may report either name in this case.

Do not list the name of a chemical that does not appear in Table II, such as individual members of a reportable EPCRA Section 313 chemical category. For example, if you use silver nitrate, do not report silver nitrate with its CAS number. Report this chemical as "silver compounds" with its category code N740.

If you are making a trade secret claim, you must report the specific EPCRA Section 313 chemical identity on your unsanitized Form A and unsanitized substantiation form. Do not report the name of the EPCRA Section 313 chemical on your sanitized Form A or sanitized substantiation form. Include a generic name in Part II, Section 1.3 of your sanitized Form A.

### 1.3 Generic Chemical Name

Complete Section 1.3 only if you are claiming the specific EPCRA Section 313 chemical identity of the EPCRA Section 313 chemical as a trade secret and have marked the trade secret block in Part I, Section 2.1 on page 1 of

Form A. Enter a generic chemical name that is descriptive of the chemical structure. You must limit the generic name to seventy characters (e.g., numbers, letters, spaces, punctuation) or less. Do not enter mixture names in Section 1.3; see Section 2 on next page.

In-house plant codes and other substitute names that are not structurally descriptive of the EPCRA Section 313 chemical identity being withheld as a trade secret are not acceptable as a generic name. The generic name must appear on both sanitized and unsanitized Form A, and the name must be the same as that used on your substantiation forms.

## Section 2. Mixture Component Identity

Report the generic name provided to you by your supplier in this section if your supplier is claiming the chemical identity proprietary or trade secret. Do not answer "yes" in Part I, Section 2.1 on page 1 of the form if you complete this section. You do not need to supply trade secret substantiation forms for this EPCRA Section 313 chemical because it is your supplier who is claiming the chemical identity a trade secret.

### 2.1 Generic Chemical Name Provided by Supplier

Enter the generic chemical name in this section only if the following three conditions apply:

1. You determine that the mixture contains an EPCRA Section 313 chemical but the only identity you have for that chemical is a generic name;

2. You know either the specific concentration of that EPCRA Section 313 chemical component or a maximum or average concentration level; and

3. You multiply the concentration level by the total annual amount of the whole mixture processed or otherwise used and determine that you meet the process or otherwise use threshold for that single, generically identified mixture component.

# Table I. SIC codes

## 10 Metal Mining (except 1011, 1081 and 1094)

1021 Copper Ores
1031 Lead and Zinc Ores
1041 Gold Ores
1044 Silver Ores
1061 Ferroalloy Ores, Except Vanadium
1099 Miscellaneous Metal Ores, Not Elsewhere Classified

## 12 Coal Mining (except 1241)

1221 Bituminous Coal and Lignite Surface Mining
1222 Bituminous Coal Underground Mining
1231 Anthracite Mining

## 20 Food and Kindred Products

2011 Meat packing plants
2013 Sausages and other prepared meat products
2015 Poultry slaughtering and processing
2021 Creamery butter
2022 Natural, processed, and imitation cheese
2023 Dry, condensed, and evaporated dairy products
2024 Ice cream and frozen desserts
2026 Fluid milk
2032 Canned specialties
2033 Canned fruits, vegetables, preserves, jams, and jellies
2034 Dried and dehydrated fruits, vegetables, and soup mixes
2035 Pickled fruits and vegetables, vegetable sauces and seasonings, and salad dressings
2037 Frozen fruits, fruit juices, and vegetables
2038 Frozen specialties, n.e.c.*
2041 Flour and other grain mill products
2043 Cereal breakfast foods
2044 Rice milling
2045 Prepared flour mixes and doughs
2046 Wet corn milling
2047 Dog and cat food
2048 Prepared feeds and feed ingredients for animals and fowls, except dogs and cats
2051 Bread and other bakery products, except cookies and crackers
2052 Cookies and crackers
2053 Frozen bakery products, except bread
2061 Cane sugar, except refining
2062 Cane sugar refining
2063 Beet sugar
2064 Candy and other confectionery products
2066 Chocolate and cocoa products
2067 Chewing gum
2068 Salted and roasted nuts and seeds
2074 Cottonseed oil mills
2075 Soybean oil mills
2076 Vegetable oil mills, n.e.c.*
2077 Animal and marine fats and oils
2079 Shortening, table oils, margarine, and other edible fats and oils, n.e.c.*
2082 Malt beverages
2083 Malt
2084 Wines, brandy, and brandy spirits
2085 Distilled and blended liquors
2086 Bottled and canned soft drinks and carbonated waters
2087 Flavoring extracts and flavoring syrups, n.e.c.*
2091 Canned and cured fish and seafoods
2092 Prepared fresh or frozen fish and seafoods
2095 Roasted coffee
2096 Potato chips, corn chips, and similar snacks
2097 Manufactured ice
2098 Macaroni, spaghetti, vermicelli, and noodles
2099 Food preparations, n.e.c.*

## 21 Tobacco Products

2111 Cigarettes
2121 Cigars
2131 Chewing and smoking tobacco and snuff
2141 Tobacco stemming and redrying

## 22 Textile Mill Products

2211 Broadwoven fabric mills, cotton
2221 Broadwoven fabric mills, manmade fiber, and silk
2231 Broadwoven fabric mills, wool (including dyeing and finishing)
2241 Narrow fabric and other small wares mills: cotton, wool, silk, and manmade fiber
2251 Women's full length and knee length hosiery, except socks
2252 Hosiery, n.e.c.*
2253 Knit outerwear mills
2254 Knit underwear and nightwear mills
2257 Weft knit fabric mills
2258 Lace and warp knit fabric mills
2259 Knitting mills, n.e.c.*

*"Not elsewhere classified" indicated by "n.e.c."

2261 Finishers of Broadwoven fabrics of cotton
2262 Finishers of Broadwoven fabrics of manmade fiber and silk
2269 Finishers of textiles, n.e.c.*
2273 Carpets and rugs
2281 Yarn spinning mills
2282 Yarn texturizing, throwing, twisting, and winding mills
2284 Thread mills
2295 Coated fabrics, not rubberized
2296 Tire cord and fabrics
2297 Nonwoven fabrics
2298 Cordage and twine
2299 Textile goods, n.e.c.*

## 23 Apparel and Other Finished Products made from Fabrics and Other Similar Materials

2311 Men's and boys' suits, coats, and overcoats
2321 Men's and boys' shirts, except work shirts
2322 Men's and boys' underwear and nightwear
2323 Men's and boys' neckwear
2325 Men's and boys' separate trousers and slacks
2326 Men's and boys' work clothing
2329 Men's and boys' clothing, n.e.c.*
2331 Women's, misses', and juniors' blouses and shirts
2335 Women's, misses', and juniors' dresses
2337 Women's, misses', and juniors' suits, skirts, and coats
2339 Women's, misses', and juniors', outerwear, n.e.c.*
2341 Women's, misses', children's, and infants' underwear and nightwear
2342 Brassieres, girdles, and allied garments
2353 Hats, caps, and millinery
2361 Girls', children's and infants' dresses, blouses, and shirts
2369 Girls', children's and infants' outerwear, n.e.c.*
2371 Fur goods
2381 Dress and work gloves, except knit and all leather
2384 Robes and dressing gowns
2385 Waterproof outerwear
2386 Leather and sheep lined clothing
2387 Apparel belts
2389 Apparel and accessories, n.e.c.*
2391 Curtains and draperies
2392 House furnishings, except curtains and draperies
2393 Textile bags
2394 Canvas and related products
2395 Pleating, decorative and novelty stitching, and tucking for the trade
2396 Automotive trimmings, apparel findings, and related products
2397 Schiffli machine embroideries
2399 Fabricated textile products, n.e.c.*

## 24 Lumber and Wood Products, Except Furniture

2411 Logging
2421 Sawmills and planing mills, general
2426 Hardwood dimension and flooring mills
2429 Special product sawmills, n.e.c.*
2431 Millwork
2434 Wood kitchen cabinets
2435 Hardwood veneer and plywood
2436 Softwood veneer and plywood
2439 Structural wood members, n.e.c.*
2441 Nailed and lock corner wood boxes and shook
2448 Wood pallets and skids
2449 Wood containers, n.e.c.*
2451 Mobile homes
2452 Prefabricated wood buildings and components
2491 Wood preserving
2493 Reconstituted wood products
2499 Wood products, n.e.c.*

## 25 Furniture and Fixtures

2511 Wood household furniture, except upholstered
2512 Wood household furniture, upholstered
2514 Metal household furniture
2515 Mattresses, foundations, and convertible beds
2517 Wood television, radio, phonograph, and sewing machine cabinets
2519 Household furniture, n.e.c.*
2521 Wood office furniture
2522 Office furniture, except wood
2531 Public building and related furniture
2541 Wood office and store fixtures, partitions, shelving, and lockers
2542 Office and store fixtures, partitions, shelving, and lockers, except wood
2591 Drapery hardware and window blinds and shades
2599 Furniture and fixtures, n.e.c.*



*"Not elsewhere classified" indicated by "n.e.c."

## 26 Paper and Allied Products

2611 Pulp mills
2621 Paper mills
2631 Paperboard mills
2652 Setup paperboard boxes
2653 Corrugated and solid fiber boxes
2655 Fiber cans, tubes, drums, and similar products
2656 Sanitary food containers, except folding
2657 Folding paperboard boxes, including sanitary
2671 Packaging paper and plastics film, coated and laminated
2672 Coated and laminated paper, n.e.c.*
2673 Plastics, foil, and coated paper bags
2674 Uncoated paper and multiwall bags
2675 Die-cut paper and paperboard and cardboard
2676 Sanitary paper products
2677 Envelopes
2678 Stationery tablets, and related products
2679 Converted paper and paperboard products, n.e.c.*

## 27 Printing, Publishing, and Allied Industries

2711 Newspapers: publishing, or publishing and printing
2721 Periodicals: publishing, or publishing and printing
2731 Books: publishing, or publishing and printing
2732 Book printing
2741 Miscellaneous publishing
2752 Commercial printing, lithographic
2754 Commercial printing, gravure
2759 Commercial printing, n.e.c.*
2761 Manifold business forms
2771 Greeting cards
2782 Blank books, looseleaf binders and devices
2789 Bookbinding and related work
2791 Typesetting
2796 Plate making and related services

## 28 Chemicals and Allied Products

2812 Alkalies and chlorine
2813 Industrial gases
2816 Inorganic pigments
2819 Industrial inorganic chemicals, n.e.c.*
2821 Plastics materials, synthetic resins, and non-vulcanizable elastomers
2822 Synthetic rubber (vulcanizable elastomers)
2823 Cellulosic manmade fibers
2824 Manmade organic fibers, except cellulosic
2833 Medicinal chemicals and botanical products
2834 Pharmaceutical preparations
2835 In vitro and in vivo diagnostic substances
2836 Biological products, except diagnostic substances
2841 Soap and other detergents, except specialty cleaners
2842 Specialty cleaning, polishing, and sanitation preparations
2843 Surface active agents, finishing agents, sulfonated oils, and assistants
2844 Perfumes, cosmetics, and other toilet preparations
2851 Paints, varnishes, lacquers, enamels, and allied products
2861 Gum and wood chemicals
2865 Cyclic organic crudes and intermediates, and organic dyes and pigments
2869 Industrial organic chemicals, n.e.c.*
2873 Nitrogenous fertilizers
2874 Phosphatic fertilizers
2875 Fertilizers, mixing only
2879 Pesticides and agricultural chemicals, n.e.c.*
2891 Adhesives and sealants
2892 Explosives
2893 Printing ink
2895 Carbon black
2899 Chemicals and chemical preparations, n.e.c.*

## 29 Petroleum Refining and Related Industries

2911 Petroleum refining
2951 Asphalt paving mixtures and blocks
2952 Asphalt felts and coatings
2992 Lubricating oils and greases
2999 Products of petroleum and coal, n.e.c.*

## 30 Rubber and Miscellaneous Plastics Products

3011 Tires and inner tubes
3021 Rubber and plastics footwear
3052 Rubber and plastics hose and belting
3053 Gaskets, packing, and sealing devices
3061 Molded, extruded, and lathe cut mechanical rubber products
3069 Fabricated rubber products, n.e.c.*
3081 Unsupported plastics film and sheet
3082 Unsupported plastics profile shapes

*"Not elsewhere classified" indicated by "n.e.c."

3083 Laminated plastics plate, sheet, and profile shapes
3084 Plastics pipe
3085 Plastics bottles
3086 Plastics foam products
3087 Custom compounding of purchased plastics resins
3088 Plastics plumbing fixtures
3089 Plastics products, n.e.c.*

## 31 Leather and Leather Products

3111 Leather tanning and finishing
3131 Boot and shoe cut stock and findings
3142 House slippers
3143 Men's footwear, except athletic
3144 Women's footwear, except athletic
3149 Footwear, except rubber, n.e.c.*
3151 Leather gloves and mittens
3161 Luggage
3171 Women's handbags and purses
3172 Personal leather goods, except women'shandbags and purses
3199 Leather goods, n.e.c.*

## 32 Stone, Clay, Glass and Concrete Products

3211 Flat glass
3221 Glass containers
3229 Pressed and blown glass and glassware, n.e.c.*
3231 Glass products, made of purchased glass
3241 Cement, hydraulic
3251 Brick and structural clay tile
3253 Ceramic wall and floor tile
3255 Clay refractories
3259 Structural clay products, n.e.c.*
3261 Vitreous china plumbing fixtures and china and earthenware fittings and bathroom accessories
3262 Vitreous china table and kitchen articles
3263 Fine earthenware (whiteware) table and kitchen articles
3264 Porcelain electrical supplies
3269 Pottery products, n.e.c.*
3271 Concrete block and brick
3272 Concrete products, except block and brick
3273 Ready mixed concrete
3274 Lime
3275 Gypsum products
3281 Cut stone and stone products
3291 Abrasive products
3292 Asbestos products
3295 Minerals and earths, ground or otherwise treated
3296 Mineral wool
3297 Nonclay refractories
3299 Nonmetallic mineral products, n.e.c.*

## 33 Primary Metal Industries

3312 Steel works, blast furnaces (including coke ovens), and rolling mills
3313 Electrometallurgical products, except steel
3315 Steel wiredrawing and steel nails and spikes
3316 Cold-rolled steel sheet, strip, and bars
3317 Steel pipe and tubes
3321 Gray and ductile iron foundries
3322 Malleable iron foundries
3324 Steel investment foundries
3325 Steel foundries, n.e.c.*
3331 Primary smelting and refining of copper
3334 Primary production of aluminum
3339 Primary smelting and refining of nonferrous metals, except copper and aluminum
3341 Secondary smelting and refining of nonferrous metals
3351 Rolling, drawing, and extruding of copper
3353 Aluminum sheet, plate, and foil
3354 Aluminum extruded products
3355 Aluminum rolling and drawing, n.e.c.*
3356 Rolling, drawing, and extruding of nonferrous metals, except copper and aluminum
3357 Drawing and insulating of nonferrous wire
3363 Aluminum die-castings
3364 Nonferrous die-castings, except aluminum
3365 Aluminum foundries
3366 Copper foundries
3369 Nonferrous foundries, except aluminum and copper
3398 Metal heat treating
3399 Primary metal products, n.e.c.*

## 34 Fabricated Metal Products, except Machinery and Transportation Equipment

3411 Metal cans
3412 Metal shipping barrels, drums, kegs, and pails
3421 Cutlery
3423 Hand and edge tools, except machine tools and handsaws
3425 Handsaws and saw blades



*"Not elsewhere classified" indicated by "n.e.c."

3429 Hardware, n.e.c.*
3431 Enameled iron and metal sanitary ware
3432 Plumbing fixture fittings and trim
3433 Heating equipment, except electric and warm air furnaces
3441 Fabricated structural metal
3442 Metal doors, sash, frames, molding, and trim
3443 Fabricated plate work (boiler shops)
3444 Sheet metal work
3446 Architectural and ornamental metal work
3448 Prefabricated metal buildings and components
3449 Miscellaneous structural metal work
3451 Screw machine products
3452 Bolts, nuts, screws, rivets, and washers
3462 Iron and steel forgings
3463 Nonferrous forgings
3465 Automotive stampings
3468 Crowns and closures
3469 Metal stampings, n.e.c.*
3471 Electroplating, plating, polishing, anodizing, and coloring
3479 Coating, engraving and allied services, n.e.c.*
3482 Small arms ammunition
3483 Ammunition, except for small arms
3484 Small arms
3489 Ordnance and accessories, n.e.c.*
3491 Industrial valves
3492 Fluid power valves and hose fittings
3493 Steel springs, except wire
3494 Valves and pipe fittings, n.e.c.*
3495 Wire springs
3496 Miscellaneous fabricated wire products
3497 Metal foil and leaf
3498 Fabricated pipe and pipe fittings
3499 Fabricated metal products, n.e.c.*

## 35 Industrial and Commercial Machinery and Computer Equipment

3511 Steam, gas and hydraulic turbines, and turbine generator set units
3519 Internal combustion engines, n.e.c.*
3523 Farm machinery and equipment
3524 Lawn and garden tractors and home lawn and garden equipment
3531 Construction machinery and equipment
3532 Mining machinery and equipment, except oil and gas field machinery and equipment
3533 Oil and gas field machinery and equipment
3534 Elevators and moving stairways
3535 Conveyors and conveying equipment
3536 Overhead traveling cranes, hoists, and monorail systems
3537 Industrial trucks, tractors, trailers, and stackers
3541 Machine tools, metal cutting types
3542 Machine tools, metal forming types
3543 Industrial patterns
3544 Special dies and tools, die sets, jigs and fixtures, and industrial molds
3545 Cutting tools, machine tool accessories, and machinists' measuring devices
3546 Power driven handtools
3547 Rolling mill machinery and equipment
3548 Electric and gas welding and soldering equipment
3549 Metalworking machinery, n.e.c.*
3552 Textile machinery
3553 Woodworking machinery
3554 Paper industries machinery
3555 Printing trades machinery and equipment
3556 Food products machinery
3559 Special industry machinery, n.e.c.*
3561 Pumps and pumping equipment
3562 Ball and roller bearings
3563 Air and gas compressors
3564 Industrial and commercial fans and blowers and air purification equipment
3565 Packaging equipment
3566 Speed changers, industrial high speed drives, and gears
3567 Industrial process furnaces and ovens
3568 Mechanical power transmission equipment, n.e.c.*
3569 General industrial machinery and equipment, n.e.c.*
3571 Electronic computers
3572 Computer storage devices
3575 Computer terminals
3577 Computer peripheral equipment, n.e.c.*
3578 Calculating and accounting machines, except electronic computers
3579 Office machines, n.e.c.*
3581 Automatic vending machines
3582 Commercial laundry, dry-cleaning, and pressing machines
3585 Air conditioning and warm air heating equipment and commercial and industrial refrigeration equipment
3586 Measuring and dispensing pumps
3589 Service industry machinery, n.e.c.*
3592 Carburetors, pistons, piston rings, and valves
3593 Fluid power cylinders and actuators
3594 Fluid power pumps and motors
3596 Scales and balances, except laboratory

*"Not elsewhere classified" indicated by "n.e.c."

3599 Industrial and commercial machinery and equipment, n.e.c*

## 36 Electronic and Other Electrical Equipment and Components, Except Computer Equipment

3612 Power, distribution, and specialty transformers
3613 Switchgear and switchboard apparatus
3621 Motors and generators
3624 Carbon and graphite products
3625 Relays and industrial controls
3629 Electrical industrial appliances, n.e.c.*
3631 Household cooking equipment
3632 Household refrigerators and home and farm freezers
3633 Household laundry equipment
3634 Electrical housewares and fans
3635 Household vacuum cleaners
3639 Household appliances, n.e.c.*
3641 Electric lampbulbs and tubes
3643 Current carrying wiring devices
3644 Noncurrent carrying wiring devices
3645 Residential electric lighting fixtures
3646 Commercial, industrial, and institutional electric lighting fixtures
3647 Vehicular lighting equipment
3648 Lighting equipment, n.e.c.*
3651 Household audio and video equipment
3652 Phonograph records and pre-recorded audio tapes and disks
3661 Telephone and telegraph apparatus
3663 Radio and television broadcasting and communications equipment
3669 Communications equipment, n.e.c.*
3671 Electron tubes
3672 Printed circuit boards
3674 Semiconductors and related devices
3675 Electronic capacitors
3676 Electronic resistors
3677 Electronic coils, transformers, and other inductors
3678 Electronic connectors
3679 Electronic components, n.e.c.*
3691 Storage batteries
3692 Primary batteries, dry and wet
3694 Electric equipment for internal combustion engines
3695 Magnetic and optical recording media
3699 Electrical machinery, equipment, and supplies, n.e.c.*

## 37 Transportation Equipment

3711 Motor vehicles and passenger car bodies
3713 Truck and bus bodies
3714 Motor vehicle parts and accessories
3715 Truck trailers
3716 Motor homes
3721 Aircraft
3724 Aircraft engines and engine parts
3728 Aircraft parts and auxiliary equipment, n.e.c.*
3731 Ship building and repairing
3732 Boat building and repairing
3743 Railroad equipment
3751 Motorcycles, bicycles and parts
3761 Guided missiles and space vehicles
3764 Guided missile and space vehicle propulsionunits and propulsion unit parts
3769 Guided missile and space vehicle parts and auxiliary equipment, n.e.c.*
3792 Travel trailers and campers
3795 Tanks and tank components
3799 Transportation equipment, n.e.c.*

## 38 Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks

3812 Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments
3821 Laboratory apparatus and furniture
3822 Automatic controls for regulating residential and commercial environments and appliances
3823 Industrial instruments for measurement, display, and control of process variables; and related products
3824 Totalizing fluid meters and counting devices
3825 Instruments for measuring and testing of electricity and electrical signals
3826 Laboratory analytical instruments
3827 Optical instruments and lenses
3829 Measuring and controlling devices, n.e.c.*
3841 Surgical and medical instruments and apparatus
3842 Orthopedic, prosthetic, and surgical appliances and supplies
3843 Dental equipment and supplies
3844 X-ray apparatus and tubes and related irradiation apparatus



*"Not elsewhere classified" indicated by "n.e.c."

3845 Electromedical and electrotherapeutic apparatus
3851 Ophthalmic goods
3861 Photographic equipment and supplies
3873 Watches, clocks, clockwork operated devices, and parts

## 39 Miscellaneous Manufacturing Industries

3911 Jewelry, precious metal
3914 Silverware, plated ware, and stainless steel ware
3915 Jewelers' findings and materials, and lapidary work
3931 Musical instruments
3942 Dolls and stuffed toys
3944 Games, toys and children's vehicles; except dolls and bicycles
3949 Sporting and athletic goods, n.e.c.*
3951 Pens, mechanical pencils, and parts
3952 Lead pencils, crayons, and artists' materials
3953 Marking devices
3955 Carbon paper and inked ribbons
3961 Costume jewelry and costume novelties, except precious metal
3965 Fasteners, buttons, needles, and pins
3991 Brooms and brushes
3993 Signs and advertising specialties
3995 Burial caskets
3996 Linoleum, asphalted-felt-base, and other hard surface floor coverings, n.e.c.*
3999 Manufacturing industries, n.e.c.*

## 49 Electric, Gas, and Sanitary Services (limited to 4911, 4931, 4939 and 4953)

4911 Electric Services (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce)
4931 Electric and Other Services Combined (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce)
4939 Combination utilities, Not Elsewhere Classified (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce)
4953 Refuse Systems (limited to facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 *et seq.)*

## 51 Wholesale Trade–Nondurable Goods (limited to 5169 and 5171)

5169 Chemical and Allied Products, Not Elsewhere Classified
5171 Petroleum Terminals and Bulk Stations

## 73 Business Services (limited to 7389)

7389 Business Services, Not Elsewhere Classified (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis)

*"Not elsewhere classified" indicated by "n.e.c."

# Table II. EPCRA Section 313 Chemical List For Reporting Year 1999 (including Toxic Chemical Categories)

Specific EPCRA Section 313 chemicals with CAS Numbers are listed in alphabetical starting on page II-3. A list of the same chemicals in CAS Number order begins at the end of the alphabetical list of EPCRA Section 313 chemicals. Covered chemical categories follow.

Certain EPCRA Section 313 chemicals listed in Table II have parenthetic "qualifiers." These qualifiers indicate that these EPCRA Section 313 chemicals are subject to the section 313 reporting requirements if manufactured, processed, or otherwise used in a specific form or when a certain activity is performed. The following chemicals are reportable only if they are manufactured, processed, or otherwise used in the specific form(s) listed below:

| Chemical | CAS Registry Number | Qualifier |
|---|---|---|
| **Aluminum** (fume or dust) | 7429-90-5 | Only if it is a fume or dust form. |
| **Aluminum oxide** (fibrous forms) | 1344-28-1 | Only if it is a fibrous form. |
| **Ammonia** (includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing) | 7664-41-7 | Only 10 percent of aqueous forms. 100 percent of anhydrous forms. |
| **Asbestos** (friable) | 1332-21-4 | Only if it is a friable form. |
| **Hydrochloric acid** (acid aerosols including: mists, vapors, gas, fog, and other airborne forms of any particle size) | 7647-01-0 | Only if it is an aerosol form as defined. |
| **Phosphorus** (yellow or white) | 7723-14-0 | Only if it is a yellow or white form. |
| **Sulfuric acid** (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size) | 7664-93-9 | Only if it is an aerosol form as defined. |
| **Vanadium** (fume or dust) | 7440-62-2 | Only if it is in a fume or dust form. |
| **Zinc** (fume or dust) | 7440-66-6 | Only if it is in a fume or dust form. |

The qualifier for the following two chemicals is based on the chemical activity rather than the form of the chemical. These chemicals are subject to EPCRA section 313 reporting requirements only when the indicated activity is performed.

| Chemical | CAS Number | Qualifier |
|---|---|---|
| **Isopropyl alcohol** (manufacturing – strong acid process, no supplier notification) | 67-63-0 | Only if it is being manufactured by the strong acid process. |
| **Saccharin** (manufacturing, no supplier notification) | 81-07-2 | Only if it is being manufactured. |

There are no supplier notification requirements for isopropyl alcohol and saccharin since the processors and users of these chemicals are not required to report. Manufacturers of these chemicals do not need to notify their customers that these are reportable EPCRA section 313 chemicals

**C.I. means "Color Index"*

[Note: Chemicals may be added to or deleted from the list. The Emergency Planning and Community Right-to-Know Information Hotline, 1 (800) 424-9346, or (703) 412-9877, will provide up-to-date information on the status of these changes . See section B.4.b of the instructions for more information on the *de minimis* values listed below.]

## Chemical Qualifiers

This table contains the list of individual EPCRA Section 313 chemicals and categories of chemicals subject to 1998 calendar year reporting. Some of the EPCRA Section 313 chemicals listed have parenthetic qualifiers listed next to them. An EPCRA Section 313 chemical that is listed without a qualifier is subject to reporting in all forms in which it is manufactured, processed, and otherwise used.

**Fume or dust.** Three of the metals on the list (aluminum, vanadium, and zinc) contain the qualifier "fume or dust." Fume or dust refers to dry forms of these metals but does not refer to "wet" forms such as solutions or slurries. As explained in Section B.3.a of these instructions, the term manufacture includes the generation of an EPCRA Section 313 chemical as a byproduct or impurity. In such cases, a facility should determine if, for example, it generated more than 25,000 pounds of aluminum fume or dust in the reporting year as a result of its activities. If so, the facility must report that it manufactures "aluminum (fume or dust)." Similarly, there may be certain technologies in which one of these metals is processed in the form of a fume or dust to make other EPCRA Section 313 chemicals or other products for distribution in commerce. In reporting releases, the facility would only report releases of the fume or dust.

EPA considers dusts to consist of solid particles generated by any mechanical processing of materials including crushing, grinding, rapid impact, handling, detonation, and decrepitation of organic and inorganic materials such as rock, ore, and metal. Dusts do not tend to flocculate, except under electrostatic forces. A fume is an airborne dispersion consisting of small solid particles created by condensation from a gaseous state, in distinction to a gas or vapor. Fumes arise from the heating of solids such as lead. The condensation is often accompanied by a chemical reaction, such as oxidation. Fumes flocculate and sometimes coalesce.

**Manufacturing qualifiers.** Two of the entries to the section 313 EPCRA Section 313 chemical list contain a qualifier relating to manufacture. For isopropyl alcohol, the qualifier is "manufacturing – strong acid process." For saccharin, the qualifier simply is "manufacturing." For isopropyl alcohol, the qualifier means that only facilities manufacturing isopropyl alcohol by the strong acid process are required to report. In the case of saccharin, only manufacturers of the EPCRA Section 313 chemical are subject to the reporting requirements. A facility that processes or otherwise uses either EPCRA Section 313 chemical would not be required to report for those EPCRA Section 313 chemicals. In both cases, supplier notification does not apply because only manufacturers, not users, of the EPCRA Section 313 chemical must report.

**Ammonia (includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing).** The qualifier for ammonia means that anhydrous forms of ammonia are 100 percent reportable and aqueous forms are limited to 10 percent of total aqueous ammonia. Therefore when determining threshold and releases and other waste management quantities all anhydrous ammonia is included but only 10 percent of total aqueous ammonia is included. Any evaporation of ammonia from aqueous ammonia solutions is considered anhydrous ammonia and should be included in threshold determinations and release and other waste management calculations.

**Sulfuric acid and Hydrochloric acid (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size).** The qualifier for sulfuric acid and hydrochloric acid means that the only forms of this chemical that are reportable are aerosols. Aqueous solutions are not covered by this listing but any aerosols generated from aqueous solutions are covered.

**Nitrate compounds (water dissociable; reportable only when in aqueous solution).** The qualifier for the nitrate compounds category limits the reporting to nitrate compounds that dissociate in water, generating nitrate ion. For the purposes of threshold determinations the entire weight of the nitrate compound must be included in all calculations. For the purposes of reporting releases and other waste management quantities only the weight of the nitrate ion should be included in the calulations of these quantities.

**Phosphorus (yellow or white).** The listing for phosphorus is qualified by the term "yellow or white." This means that only manufacturing, processing, or



*"Not elsewhere classified" indicated by "n.e.c."

otherwise use of phosphorus in the yellow or white chemical form triggers reporting. Conversely, manufacturing, processing, or otherwise use of "black" or "red" phosphorus does not trigger reporting. Supplier notification also applies only to distribution of yellow or white phosphorus.

**Asbestos (friable).** The listing for asbestos is qualified by the term "friable," referring to the physical characteristic of being able to be crumbled, pulverized, or reducible to a powder with hand pressure. Only manufacturing, processing, or otherwise use of asbestos in the friable form triggers reporting. Supplier notification applies only to distribution of mixtures or other trade name products containing friable asbestos.

**Aluminum Oxide (fibrous forms).** The listing for aluminum oxide is qualified by the term "fibrous forms." Fibrous refers to a man-made form of aluminum oxide that is processed to produce strands or filaments which can be cut to various lengths depending on the application. Only manufacturing, processing, or otherwise use of aluminum oxide in the fibrous form triggers reporting. Supplier notification applies only to distribution of mixtures or other trade name products containing fibrous forms of aluminum oxide.

## a. Alphabetical List of TRI Chemicals

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 71751-41-2 | Abamectin [Avermectin B1] | 1.0 |
| 30560-19-1 | Acephate (Acetylphosphoramidothioic acid O,S-dimethyl ester) | 1.0 |
| 75-07-0 | Acetaldehyde | 0.1 |
| 60-35-5 | Acetamide | 0.1 |
| 75-05-8 | Acetonitrile | 1.0 |
| 98-86-2 | Acetophenone | 1.0 |
| 53-96-3 | 2-Acetylaminofluorene | 0.1 |
| 62476-59-9 | Acifluorfen, sodium salt [5-(2-Chloro-4-(trifluoromethyl)-phenoxy)-2-nitrobenzoic acid, sodium salt] | 1.0 |
| 107-02-8 | Acrolein | 1.0 |
| 79-06-1 | Acrylamide | 0.1 |
| 79-10-7 | Acrylic acid | 1.0 |
| 107-13-1 | Acrylonitrile | 0.1 |
| 15972-60-8 | Alachlor | 1.0 |
| 116-06-3 | Aldicarb | 1.0 |
| 309-00-2 | Aldrin [1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a, 5,8,8a-hexahydro-(1.alpha., 4.alpha.,4a.beta.,5.alpha.,8.alpha., 8a.beta.)-] | 1.0 |
| 28057-48-9 | d-trans-Allethrin [d-trans-Chrysanthemic acid of d-allethrone] | 1.0 |
| 107-18-6 | Allyl alcohol | 1.0 |
| 107-11-9 | Allylamine | 1.0 |
| 107-05-1 | Allyl chloride | 1.0 |
| 7429-90-5 | Aluminum (fume or dust) | 1.0 |
| 20859-73-8 | Aluminum phosphide | 1.0 |
| 1344-28-1 | Aluminum oxide (fibrous forms) | 1.0 |
| 834-12-8 | Ametryn (N-Ethyl-N'-(1-methylethyl)-6-(methylthio)-1,3,5,-triazine-2,4-diamine) | 1.0 |
| 117-79-3 | 2-Aminoanthraquinone | 0.1 |
| 60-09-3 | 4-Aminoazobenzene | 0.1 |
| 92-67-1 | 4-Aminobiphenyl | 0.1 |
| 82-28-0 | 1-Amino-2-methylanthraquinone | 0.1 |
| 33089-61-1 | Amitraz | 1.0 |
| 61-82-5 | Amitrole | 0.1 |

**C.I. means "Color Index"*

*Table II*

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 7664-41-7 | Ammonia (includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing) | 1.0 |
| 101-05-3 | Anilazine [4,6-Dichloro-N-(2-chlorophenyl)-1,3,5-triazin-2-amine] | 1.0 |
| 62-53-3 | Aniline | 1.0 |
| 90-04-0 | o-Anisidine | 0.1 |
| 104-94-9 | p-Anisidine | 1.0 |
| 134-29-2 | o-Anisidine hydrochloride | 0.1 |
| 120-12-7 | Anthracene | 1.0 |
| 7440-36-0 | Antimony | 1.0 |
| 7440-38-2 | Arsenic | 0.1 |
| 1332-21-4 | Asbestos (friable) | 0.1 |
| 1912-24-9 | Atrazine (6-Chloro-N-ethyl-N'-(1-methylethyl)-1,3,5-triazine-2,4-diamine) | 0.1 |
| 7440-39-3 | Barium | 1.0 |
| 22781-23-3 | Bendiocarb [2,2-Dimethyl-1,3-benzodioxol-4-ol methylcarbamate] | 1.0 |
| 1861-40-1 | Benfluralin (N-Butyl-N-ethyl-2,6-dinitro-4-(trifluoromethyl)-benzenamine) | 1.0 |
| 17804-35-2 | Benomyl | 1.0 |
| 98-87-3 | Benzal chloride | 1.0 |
| 55-21-0 | Benzamide | 1.0 |
| 71-43-2 | Benzene | 0.1 |
| 92-87-5 | Benzidine | 0.1 |
| 98-07-7 | Benzoic trichloride (Benzotrichloride) | 0.1 |
| 98-88-4 | Benzoyl chloride | 1.0 |
| 94-36-0 | Benzoyl peroxide | 1.0 |
| 100-44-7 | Benzyl chloride | 1.0 |
| 7440-41-7 | Beryllium | 0.1 |
| 82657-04-3 | Bifenthrin | 1.0 |
| 92-52-4 | Biphenyl | 1.0 |
| 111-91-1 | Bis(2-chloroethoxy) methane | 1.0 |
| 111-44-4 | Bis(2-chloroethyl) ether | 1.0 |
| 542-88-1 | Bis(chloromethyl) ether | 0.1 |
| 108-60-1 | Bis(2-chloro-1-methylethyl)ether | 1.0 |
| 56-35-9 | Bis(tributyltin) oxide | 1.0 |
| 10294-34-5 | Boron trichloride | 1.0 |
| 7637-07-2 | Boron trifluoride | 1.0 |
| 314-40-9 | Bromacil (5-Bromo-6-methyl-3-(1-methylpropyl)-2,4(1H,3H)-pyrimidinedione) | 1.0 |
| 53404-19-6 | Bromacil, lithium salt [2,4(1H,3H)-Pyrimidinedione, 5-bromo-6-methyl-3-(1-methyl-propyl), lithium salt] | 1.0 |
| 7726-95-6 | Bromine | 1.0 |
| 35691-65-7 | 1-Bromo-1-(bromomethyl)-1,3-propanedicarbonitrile | 1.0 |
| 353-59-3 | Bromochlorodifluoromethane (Halon 1211) | 1.0 |
| 75-25-2 | Bromoform (Tribromomethane) | 1.0 |
| 74-83-9 | Bromomethane (Methyl bromide) | 1.0 |
| 75-63-8 | Bromotrifluoromethane (Halon 1301) | 1.0 |
| 1689-84-5 | Bromoxynil (3,5-Dibromo-4-hydroxybenzonitrile) | 1.0 |
| 1689-99-2 | Bromoxynil octanoate (Octanoic acid, 2,6-dibromo-4-cyanophenylester) | 1.0 |
| 357-57-3 | Brucine | 1.0 |
| 106-99-0 | 1,3-Butadiene | 0.1 |
| 141-32-2 | Butyl acrylate | 1.0 |
| 71-36-3 | n-Butyl alcohol | 1.0 |
| 78-92-2 | sec-Butyl alcohol | 1.0 |
| 75-65-0 | tert-Butyl alcohol | 1.0 |
| 106-88-7 | 1,2-Butylene oxide | 1.0 |
| 123-72-8 | Butyraldehyde | 1.0 |
| 7440-43-9 | Cadmium | 0.1 |
| 156-62-7 | Calcium cyanamide | 1.0 |
| 133-06-2 | Captan [1H-Isoindole-1,3(2H)-dione, 3a,4,7,7a-tetrahydro-2-[(trichloromethyl)thio]-] | 1.0 |
| 63-25-2 | Carbaryl [1-Naphthalenol, methylcarbamate] | 1.0 |
| 1563-66-2 | Carbofuran | 1.0 |
| 75-15-0 | Carbon disulfide | 1.0 |
| 56-23-5 | Carbon tetrachloride | 0.1 |
| 463-58-1 | Carbonyl sulfide | 1.0 |
| 5234-68-4 | Carboxin (5,6-Dihydro-2-methyl-N-phenyl-1,4-oxathiin-3-carboxamide) | 1.0 |
| 120-80-9 | Catechol | 1.0 |



*"Not elsewhere classified" indicated by "n.e.c."

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 2439-01-2 | Chinomethionat [6-Methyl-1,3-dithiolo[4,5-b]quinoxalin-2-one] | 1.0 |
| 133-90-4 | Chloramben [Benzoic acid, 3-amino-2,5-dichloro-] | 1.0 |
| 57-74-9 | Chlordane [4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-] | 0.1 |
| 115-28-6 | Chlorendic acid | 0.1 |
| 90982-32-4 | Chlorimuron ethyl [Ethyl-2-[[[[(4-chloro-6-methoxyprimidin-2-yl)amino]carbonyl]amino] sulfonyl]benzoate] | 1.0 |
| 7782-50-5 | Chlorine | 1.0 |
| 10049-04-4 | Chlorine dioxide | 1.0 |
| 79-11-8 | Chloroacetic acid | 1.0 |
| 532-27-4 | 2-Chloroacetophenone | 1.0 |
| 4080-31-3 | 1-(3-Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride | 1.0 |
| 106-47-8 | p-Chloroaniline | 0.1 |
| 108-90-7 | Chlorobenzene | 1.0 |
| 510-15-6 | Chlorobenzilate [Benzeneacetic acid, 4-chloro-.alpha.- (4-chlorophenyl)-.alpha.-hydroxy-, ethyl ester] | 1.0 |
| 75-68-3 | 1-Chloro-1,1-difluoroethane (HCFC-142b) | 1.0 |
| 75-45-6 | Chlorodifluoromethane (HCFC-22) | 1.0 |
| 75-00-3 | Chloroethane (Ethyl chloride) | 1.0 |
| 67-66-3 | Chloroform | 0.1 |
| 74-87-3 | Chloromethane (Methyl chloride) | 1.0 |
| 107-30-2 | Chloromethyl methyl ether | 0.1 |
| 563-47-3 | 3-Chloro-2-methyl-1-propene | 0.1 |
| 104-12-1 | p-Chlorophenyl isocyanate | 1.0 |
| 76-06-2 | Chloropicrin | 1.0 |
| 126-99-8 | Chloroprene | 1.0 |
| 542-76-7 | 3-Chloropropionitrile | 1.0 |
| 63938-10-3 | Chlorotetrafluoroethane | 1.0 |
| 354-25-6 | 1-Chloro-1,1,2,2-tetrafluoroethane (HCFC-124a) | 1.0 |
| 2837-89-0 | 2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124) | 1.0 |
| 1897-45-6 | Chlorothalonil [1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-] | 1.0 |
| 95-69-2 | p-Chloro-o-toluidine | 0.1 |
| 75-88-7 | 2-Chloro-1,1,1-trifluoroethane (HCFC-133a) | 1.0 |
| 75-72-9 | Chlorotrifluoromethane (CFC-13) | 1.0 |
| 460-35-5 | 3-Chloro-1,1,1-trifluoropropane (HCFC-253fb) | 1.0 |
| 5598-13-0 | Chlorpyrifos methyl [O,O-Dimethyl-O-(3,5,6-trichloro-2-pyridyl)phosphorothioate] | 1.0 |
| 64902-72-3 | Chlorsulfuron [2-Chloro-N-[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl) amino]carbonyl] benzenesulfonamide] | 1.0 |
| 7440-47-3 | Chromium | 1.0 |
| 4680-78-8 | C.I. Acid Green 3 | 1.0 |
| 6459-94-5 | C.I. Acid Red 114 | 0.1 |
| 569-64-2 | C.I. Basic Green 4 | 1.0 |
| 989-38-8 | C.I. Basic Red 1 | 1.0 |
| 1937-37-7 | C.I. Direct Black 38 | 0.1 |
| 2602-46-2 | C.I. Direct Blue 6 | 0.1 |
| 28407-37-6 | C.I. Direct Blue 218 | 1.0 |
| 16071-86-6 | C.I. Direct Brown 95 | 0.1 |
| 2832-40-8 | C.I. Disperse Yellow 3 | 1.0 |
| 3761-53-3 | C.I. Food Red 5 | 0.1 |
| 81-88-9 | C.I. Food Red 15 | 1.0 |
| 3118-97-6 | C.I. Solvent Orange 7 | 1.0 |
| 97-56-3 | C.I. Solvent Yellow 3 | 1.0 |
| 842-07-9 | C.I. Solvent Yellow 14 | 1.0 |
| 492-80-8 | C.I. Solvent Yellow 34 (Auramine) | 0.1 |
| 128-66-5 | C.I. Vat Yellow 4 | 1.0 |
| 7440-48-4 | Cobalt | 0.1 |
| 7440-50-8 | Copper | 1.0 |
| 8001-58-9 | Creosote | 0.1 |
| 120-71-8 | p-Cresidine | 0.1 |
| 108-39-4 | m-Cresol | 1.0 |
| 95-48-7 | o-Cresol | 1.0 |
| 106-44-5 | p-Cresol | 1.0 |
| 1319-77-3 | Cresol (mixed isomers) | 1.0 |
| 4170-30-3 | Crotonaldehyde | 1.0 |
| 98-82-8 | Cumene | 1.0 |
| 80-15-9 | Cumene hydroperoxide | 1.0 |
| 135-20-6 | Cupferron [Benzeneamine, N-hydroxy-N-nitroso, ammonium salt] | 0.1 |
| 21725-46-2 | Cyanazine | 1.0 |
| 1134-23-2 | Cycloate | 1.0 |
| 110-82-7 | Cyclohexane | 1.0 |
| 108-93-0 | Cyclohexanol | 1.0 |

**C.I. means "Color Index"*

*Table II*

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 68359-37-5 | Cyfluthrin [3-(2,2-Dichloroethenyl)-2,2-dimethylcyclopropanecarboxylic acid, cyano(4-fluoro-3-phenoxyphenyl) methyl ester] | 1.0 |
| 68085-85-8 | Cyhalothrin [3-(2-Chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylic acid cyano(3-phenoxyphenyl) methyl ester] | 1.0 |
| 94-75-7 | 2,4-D [Acetic acid, (2,4-dichlorophenoxy)-] | 0.1 |
| 533-74-4 | Dazomet (Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione) | 1.0 |
| 53404-60-7 | Dazomet, sodium salt [Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione, ion(1-), sodium] | 1.0 |
| 94-82-6 | 2,4-DB | 1.0 |
| 1929-73-3 | 2,4-D butoxyethyl ester | 0.1 |
| 94-80-4 | 2,4-D butyl ester | 0.1 |
| 2971-38-2 | 2,4-D chlorocrotyl ester | 0.1 |
| 1163-19-5 | Decabromodiphenyl oxide | 1.0 |
| 13684-56-5 | Desmedipham | 1.0 |
| 1928-43-4 | 2,4-D 2-ethylhexyl ester | 0.1 |
| 53404-37-8 | 2,4-D 2-ethyl-4-methylpentyl ester | 0.1 |
| 2303-16-4 | Diallate [Carbamothioic acid, bis(1-methylethyl)-S-(2,3-dichloro-2-propenyl) ester] | 1.0 |
| 615-05-4 | 2,4-Diaminoanisole | 0.1 |
| 39156-41-7 | 2,4-Diaminoanisole sulfate | 0.1 |
| 101-80-4 | 4,4'-Diaminodiphenyl ether | 0.1 |
| 95-80-7 | 2,4-Diaminotoluene | 0.1 |
| 25376-45-8 | Diaminotoluene (mixed isomers) | 0.1 |
| 333-41-5 | Diazinon | 1.0 |
| 334-88-3 | Diazomethane | 1.0 |
| 132-64-9 | Dibenzofuran | 1.0 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane (DBCP) | 0.1 |
| 106-93-4 | 1,2-Dibromoethane (Ethylene dibromide) | 0.1 |
| 124-73-2 | Dibromotetrafluoroethane (Halon 2402) | 1.0 |
| 84-74-2 | Dibutyl phthalate | 1.0 |
| 1918-00-9 | Dicamba (3,6-Dichloro-2-methoxybenzoic acid) | 1.0 |
| 99-30-9 | Dichloran [2,6-Dichloro-4-nitroaniline] | 1.0 |
| 95-50-1 | 1,2-Dichlorobenzene | 1.0 |
| 541-73-1 | 1,3-Dichlorobenzene | 1.0 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.1 |
| 25321-22-6 | Dichlorobenzene (mixed isomers) | 0.1 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 0.1 |
| 612-83-9 | 3,3'-Dichlorobenzidine dihydrochloride | 0.1 |
| 64969-34-2 | 3,3'-Dichlorobenzidine sulfate | 0.1 |
| 75-27-4 | Dichlorobromomethane | 1.0 |
| 764-41-0 | 1,4-Dichloro-2-butene | 1.0 |
| 110-57-6 | trans-1,4-Dichloro-2-butene | 1.0 |
| 1649-08-7 | 1,2-Dichloro-1,1-difluoroethane (HCFC-132b) | 1.0 |
| 75-71-8 | Dichlorodifluoromethane (CFC-12) | 1.0 |
| 107-06-2 | 1,2-Dichloroethane (Ethylene dichloride) | 0.1 |
| 540-59-0 | 1,2-Dichloroethylene | 1.0 |
| 1717-00-6 | 1,1-Dichloro-1-fluoroethane (HCFC-141b) | 1.0 |
| 75-43-4 | Dichlorofluoromethane (HCFC-21) | 1.0 |
| 75-09-2 | Dichloromethane (Methylene chloride) | 0.1 |
| 127564-92-5 | Dichloropentafluoropropane | 1.0 |
| 13474-88-9 | 1,1-Dichloro-1,2,2,3,3-pentafluoropropane (HCFC-225cc) | 1.0 |
| 111512-56-2 | 1,1-Dichloro-1,2,3,3,3-pentafluoropropane (HCFC-225eb) | 1.0 |
| 422-44-6 | 1,2-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225bb) | 1.0 |
| 431-86-7 | 1,2-Dichloro-1,1,3,3,3-pentafluoropropane (HCFC-225da) | 1.0 |
| 507-55-1 | 1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb) | 1.0 |
| 136013-79-1 | 1,3-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225ea) | 1.0 |
| 128903-21-9 | 2,2-Dichloro-1,1,1,3,3-pentafluoropropane (HCFC-225aa) | 1.0 |
| 22-48-0 | 2,3-Dichloro-1,1,1,2,3-pentafluoropropane (HCFC-225ba) | 1.0 |
| 422-56-0 | 3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca) | 1.0 |
| 97-23-4 | Dichlorophene [2,2'-Methylenebis(4-chlorophenol)] | 1.0 |
| 120-83-2 | 2,4-Dichlorophenol | 1.0 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 |



*"Not elsewhere classified" indicated by "n.e.c."

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 10061-02-6 | trans-1,3-Dichloropropene | 0.1 |
| 78-88-6 | 2,3-Dichloropropene | 1.0 |
| 542-75-6 | 1,3-Dichloropropylene | 0.1 |
| 76-14-2 | Dichlorotetrafluoroethane (CFC-114) | 1.0 |
| 34077-87-7 | Dichlorotrifluoroethane | 1.0 |
| 90454-18-5 | Dichloro-1,1,2-trifluoroethane | 1.0 |
| 812-04-4 | 1,1-Dichloro-1,2,2-trifluoroethane (HCFC-123b) | 1.0 |
| 354-23-4 | 1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a) | 1.0 |
| 306-83-2 | 2,2-Dichloro-1,1,1-trifluoroethane (HCFC-123) | 1.0 |
| 62-73-7 | Dichlorvos [Phosphoric acid, 2,2-dichloroethenyl dimethyl ester] | 0.1 |
| 51338-27-3 | Diclofop methyl [2-[4-(2,4-Dichlorophenoxy) phenoxy]propanoic acid, methyl ester] | 1.0 |
| 115-32-2 | Dicofol [Benzenemethanol, 4-chloro-.alpha.-4-(chlorophenyl)-.alpha.-(trichloromethyl)-] | 1.0 |
| 77-73-6 | Dicyclopentadiene | 1.0 |
| 1464-53-5 | Diepoxybutane | 0.1 |
| 111-42-2 | Diethanolamine | 1.0 |
| 38727-55-8 | Diethatyl ethyl | 1.0 |
| 117-81-7 | Di(2-ethylhexyl) phthalate (DEHP) | 0.1 |
| 64-67-5 | Diethyl sulfate | 0.1 |
| 35367-38-5 | Diflubenzuron | 1.0 |
| 101-90-6 | Diglycidyl resorcinol ether | 0.1 |
| 94-58-6 | Dihydrosafrole | 0.1 |
| 55290-64-7 | Dimethipin [2,3-Dihydro-5,6-dimethyl-1,4-dithiin-1,1,4,4-tetraoxide] | 1.0 |
| 60-51-5 | Dimethoate | 1.0 |
| 119-90-4 | 3,3'-Dimethoxybenzidine dihydrochloride) | 0.1 |
| 20325-40-0 | 3,3'-Dimethoxybenzidine dihydrochloride(o-Dianisidine | 0.1 |
| 111984-09-9 | 3,3'-Dimethoxybenzidine hydrochloride (o-Dianisidine hydrochloride) | 0.1 |
| 124-40-3 | Dimethylamine | 1.0 |
| 2300-66-5 | Dimethylamine dicamba | 1.0 |
| 60-11-7 | 4-Dimethylaminoazobenzene | 0.1 |
| 121-69-7 | N,N-Dimethylaniline | 1.0 |
| 119-93-7 | 3,3'-Dimethylbenzidine (o-Tolidine) | 0.1 |
| 612-82-8 | 3,3'-Dimethylbenzidine dihydrochloride (o-Tolidine dihydrochloride) | 0.1 |
| 41766-75-0 | 3,3'-Dimethylbenzidine dihydrofluoride (o-Tolidine dihydrofluoride) | 0.1 |
| 79-44-7 | Dimethylcarbamyl chloride | 0.1 |
| 2524-03-0 | Dimethyl chlorothiophosphate | 1.0 |
| 68-12-2 | N,N-Dimethylformamide | 0.1 |
| 57-14-7 | 1,1-Dimethylhydrazine | 0.1 |
| 105-67-9 | 2,4-Dimethylphenol | 1.0 |
| 131-11-3 | Dimethyl phthalate | 1.0 |
| 77-78-1 | Dimethyl sulfate | 0.1 |
| 99-65-0 | m-Dinitrobenzene | 1.0 |
| 528-29-0 | o-Dinitrobenzene | 1.0 |
| 100-25-4 | p-Dinitrobenzene | 1.0 |
| 88-85-7 | Dinitrobutyl phenol (Dinoseb) | 1.0 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 1.0 |
| 51-28-5 | 2,4-Dinitrophenol | 1.0 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.1 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.1 |
| 25321-14-6 | Dinitrotoluene (mixed isomers) | 1.0 |
| 39300-45-3 | Dinocap | 1.0 |
| 123-91-1 | 1,4-Dioxane | 0.1 |
| 957-51-7 | Diphenamid | 1.0 |
| 122-39-4 | Diphenylamine | 1.0 |
| 122-66-7 | 1,2-Diphenylhydrazine (Hydrazobenzene) | 0.1 |
| 2164-07-0 | Dipotassium endothall [7-Oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid, dipotassium salt] | 1.0 |
| 136-45-8 | Dipropyl isocinchomeronate | 1.0 |
| 138-93-2 | Disodium cyanodithioimidocarbonate | 1.0 |
| 94-11-1 | 2,4-D isopropyl ester | 0.1 |
| 541-53-7 | 2,4-Dithiobiuret | 1.0 |
| 330-54-1 | Diuron | 1.0 |
| 2439-10-3 | Dodine [Dodecylguanidine monoacetate] | 1.0 |
| 120-36-5 | 2,4-DP | 0.1 |
| 1320-18-9 | 2,4-D propylene glycol butyl ether ester | 0.1 |
| 2702-72-9 | 2,4-D sodium salt | 0.1 |
| 106-89-8 | Epichlorohydrin | 0.1 |
| 13194-48-4 | Ethoprop [Phosphorodithioic acid O-ethyl S,S-dipropyl ester] | 1.0 |
| 110-80-5 | 2-Ethoxyethanol | 1.0 |
| 140-88-5 | Ethyl acrylate | 0.1 |

**C.I. means "Color Index"*

*Table II*

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 100-41-4 | Ethylbenzene | 1.0 |
| 541-41-3 | Ethyl chloroformate | 1.0 |
| 759-94-4 | Ethyl dipropylthiocarbamate (EPTC) | 1.0 |
| 74-85-1 | Ethylene | 1.0 |
| 107-21-1 | Ethylene glycol | 1.0 |
| 151-56-4 | Ethyleneimine (Aziridine) | 0.1 |
| 75-21-8 | Ethylene oxide | 0.1 |
| 96-45-7 | Ethylene thiourea | 0.1 |
| 75-34-3 | Ethylidene dichloride | 1.0 |
| 52-85-7 | Famphur | 1.0 |
| 60168-88-9 | Fenarimol [.alpha.-(2-Chlorophenyl)-.alpha.-(4-chlorophenyl)-5-pyrimidine-methanol] | 1.0 |
| 13356-08-6 | Fenbutatin oxide (Hexakis(2-methyl-2-phenylpropyl)distannoxane) | 1.0 |
| 66441-23-4 | Fenoxaprop ethyl [2-(4-((6-Chloro-2-benzoxazolylen)-oxy)phenoxy)propanoic acid, ethyl ester] | 1.0 |
| 72490-01-8 | Fenoxycarb [[2-(4-Phenoxyphenoxy) ethyl]carbamic acid ethyl ester] | 1.0 |
| 39515-41-8 | Fenpropathrin [2,2,3,3-Tetramethylcyclopropane carboxylic acid cyano(3-phenoxyphenyl)methyl ester] | 1.0 |
| 55-38-9 | Fenthion [O,O-Dimethyl O-[3-methyl-4-(methylthio)phenyl] ester, phosphorothioic acid] | 1.0 |
| 51630-58-1 | Fenvalerate [4-Chloro-alpha-(1-methylethyl) benzeneacetic acid cyano (3-phenoxyphenyl)methyl ester] | 1.0 |
| 14484-64-1 | Ferbam [Tris(dimethylcarbamodithioato-S,S')iron] | 1.0 |
| 69806-50-4 | Fluazifop butyl [2-[4-[[5-(Trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propanoic acid, butyl ester] | 1.0 |
| 2164-17-2 | Fluometuron [Urea, N,N-dimethyl-N'-[3-(trifluoromethyl)phenyl]-] | 1.0 |
| 7782-41-4 | Fluorine | 1.0 |
| 51-21-8 | Fluorouracil (5-Fluorouracil) | 1.0 |
| 69409-94-5 | Fluvalinate [N-[2-Chloro-4-(trifluoromethyl)phenyl]-DL-valine(+)-cyano(3-phenoxyphenyl)-methyl ester] | 1.0 |
| 133-07-3 | Folpet | 1.0 |
| 72178-02-0 | Fomesafen [5-(2-Chloro-4-(trifluoromethyl)phenoxy)-N-methylsulfonyl-2-nitrobenzamide] | 1.0 |
| 50-00-0 | Formaldehyde | 0.1 |
| 64-18-6 | Formic acid | 1.0 |
| 76-13-1 | Freon 113 [Ethane, 1,1,2-trichloro-1,2,2,-trifluoro-] | 1.0 |
| 76-44-8 | Heptachlor [1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene] | 0.1 |
| 118-74-1 | Hexachlorobenzene | 0.1 |
| 87-68-3 | Hexachloro-1,3-butadiene | 1.0 |
| 319-84-6 | alpha-Hexachlorocyclo-hexane | 1.0 |
| 77-47-4 | Hexachlorocyclopentadiene | 1.0 |
| 67-72-1 | Hexachloroethane | 1.0 |
| 1335-87-1 | Hexachloronaphthalene | 1.0 |
| 70-30-4 | Hexachlorophene | 1.0 |
| 680-31-9 | Hexamethylphosphoramide | 0.1 |
| 110-54-3 | n-Hexane | 1.0 |
| 51235-04-2 | Hexazinone | 1.0 |
| 67485-29-4 | Hydramethylnon [Tetrahydro-5,5-dimethyl-2(1H)-pyrimidinone[3-[4-(trifluoromethyl)phenyl]-1-[2-[4-(trifluoromethyl)phenyl]ethenyl]-2-propenylidene]hydrazone] | 1.0 |
| 302-01-2 | Hydrazine | 0.1 |
| 10034-93-2 | Hydrazine sulfate | 0.1 |
| 7647-01-0 | Hydrochloric acid (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size) | 1.0 |
| 74-90-8 | Hydrogen cyanide | 1.0 |
| 7664-39-3 | Hydrogen fluoride | 1.0 |
| 123-31-9 | Hydroquinone | 1.0 |
| 35554-44-0 | Imazalil [1-[2-(2,4-Dichlorophenyl)-2-(2-propenyloxy)ethyl]-1H-imidazole] | 1.0 |
| 55406-53-6 | 3-Iodo-2-propynyl butylcarbamate | 1.0 |



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| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 13463-40-6 | Iron pentacarbonyl | 1.0 |
| 78-84-2 | Isobutyraldehyde | 1.0 |
| 465-73-6 | Isodrin | 1.0 |
| 25311-71-1 | Isofenphos[2-[[Ethoxyl[(1-methylethyl)amino]-phosphinothioyl]oxy] benzoic acid 1-methylethyl ester] | 1.0 |
| 67-63-0 | Isopropyl alcohol (manufacturing-strong acid process, no supplier notification) | 1.0 |
| 80-05-7 | 4,4'-Isopropylidenediphenol | 1.0 |
| 120-58-1 | Isosafrole | 1.0 |
| 77501-63-4 | Lactofen [Benzoic acid, 5-[2-Chloro-4-(trifluoromethyl)phenoxy]-2-nitro-,2-ethoxy-1-methyl-2-oxoethyl ester] | 1.0 |
| 7439-92-1 | Lead | 0.1 |
| 58-89-9 | Lindane [Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1.alpha.,2.alpha., 3.beta., 4.alpha., 5.alpha., 6.beta.)-] | 0.1 |
| 330-55-2 | Linuron | 1.0 |
| 554-13-2 | Lithium carbonate | 1.0 |
| 121-75-5 | Malathion | 1.0 |
| 108-31-6 | Maleic anhydride | 1.0 |
| 109-77-3 | Malononitrile | 1.0 |
| 12427-38-2 | Maneb [Carbamodithioic acid, 1,2-ethanediylbis-, manganese complex] | 1.0 |
| 7439-96-5 | Manganese | 1.0 |
| 93-65-2 | Mecoprop | 0.1 |
| 149-30-4 | 2-Mercaptobenzothiazole (MBT) | 1.0 |
| 7439-97-6 | Mercury | 1.0 |
| 150-50-5 | Merphos | 1.0 |
| 126-98-7 | Methacrylonitrile | 1.0 |
| 137-42-8 | Metham sodium (Sodium methyldithiocarbamate) | 1.0 |
| 67-56-1 | Methanol | 1.0 |
| 20354-26-1 | Methazole [2-(3,4-Dichlorophenyl)-4-methyl-1,2,4-oxadiazolidine-3,5-dione] | 1.0 |
| 2032-65-7 | Methiocarb | 1.0 |
| 94-74-6 | Methoxone ((4-Chloro-2-methylphenoxy) acetic acid) (MCPA) | 0.1 |
| 3653-48-3 | Methoxone sodium salt ((4-Chloro-2-methylphenoxy) acetate sodium salt) | 0.1 |
| 72-43-5 | Methoxychlor [Benzene, 1,1'-(2,2,2-trichloro-ethylidene)bis[4-methoxy-]] | 1.0 |
| 109-86-4 | 2-Methoxyethanol | 1.0 |
| 96-33-3 | Methyl acrylate | 1.0 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 |
| 79-22-1 | Methyl chlorocarbonate | 1.0 |
| 101-14-4 | 4,4'-Methylenebis(2-chloroaniline) (MBOCA) | 0.1 |
| 101-61-1 | 4,4'-Methylenebis(N,N-dimethyl)benzenamine | 0.1 |
| 74-95-3 | Methylene bromide | 1.0 |
| 101-77-9 | 4,4'-Methylenedianiline | 0.1 |
| 78-93-3 | Methyl ethyl ketone | 1.0 |
| 60-34-4 | Methyl hydrazine | 1.0 |
| 74-88-4 | Methyl iodide | 1.0 |
| 108-10-1 | Methyl isobutyl ketone | 1.0 |
| 624-83-9 | Methyl isocyanate | 1.0 |
| 556-61-6 | Methyl isothiocyanate [Isothiocyanatomethane] | 1.0 |
| 75-86-5 | 2-Methyllactonitrile | 1.0 |
| 80-62-6 | Methyl methacrylate | 1.0 |
| 924-42-5 | N-Methylolacrylamide | 1.0 |
| 298-00-0 | Methyl parathion | 1.0 |
| 109-06-8 | 2-Methylpyridine | 1.0 |
| 872-50-4 | N-Methyl-2-pyrrolidone | 1.0 |
| 9006-42-2 | Metiram | 1.0 |
| 21087-64-9 | Metribuzin | 1.0 |
| 7786-34-7 | Mevinphos | 1.0 |
| 90-94-8 | Michler's ketone | 0.1 |
| 2212-67-1 | Molinate (1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester) | 1.0 |
| 1313-27-5 | Molybdenum trioxide | 1.0 |
| 76-15-3 | Monochloropenta-fluoroethane (CFC-115) | 1.0 |
| 150-68-5 | Monuron | 1.0 |
| 505-60-2 | Mustard gas [Ethane, 1,1'-thiobis[2-chloro-]] | 0.1 |
| 88671-89-0 | Myclobutanil [.alpha.-Butyl-.alpha.-(4-chlorophenyl)-1H-1,2,4-triazole-1-propanenitrile] | 1.0 |
| 142-59-6 | Nabam | 1.0 |
| 300-76-5 | Naled | 1.0 |
| 91-20-3 | Naphthalene | 1.0 |
| 134-32-7 | alpha-Naphthylamine | 0.1 |
| 91-59-8 | beta-Naphthylamine | 0.1 |
| 7440-02-0 | Nickel | 0.1 |

**C.I. means "Color Index"*

*Table II*

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 1929-82-4 | Nitrapyrin (2-Chloro-6-(trichloromethyl)-pyridine) | 1.0 |
| 7697-37-2 | Nitric acid | 1.0 |
| 139-13-9 | Nitrilotriacetic acid | 0.1 |
| 100-01-6 | p-Nitroaniline | 1.0 |
| 99-59-2 | 5-Nitro-o-anisidine | 1.0 |
| 98-95-3 | Nitrobenzene | 0.1 |
| 92-93-3 | 4-Nitrobiphenyl | 0.1 |
| 1836-75-5 | Nitrofen [Benzene, 2,4-dichloro-1-(4-nitrophenoxy)-] | 0.1 |
| 51-75-2 | Nitrogen mustard [2-Chloro-N-(2-chloroethyl)-N-methylethanamine] | 0.1 |
| 55-63-0 | Nitroglycerin | 1.0 |
| 88-75-5 | 2-Nitrophenol | 1.0 |
| 100-02-7 | 4-Nitrophenol | 1.0 |
| 79-46-9 | 2-Nitropropane | 0.1 |
| 924-16-3 | N-Nitrosodi-n-butylamine | 0.1 |
| 55-18-5 | N-Nitrosodiethylamine | 0.1 |
| 62-75-9 | N-Nitrosodimethylamine | 0.1 |
| 86-30-6 | N-Nitrosodiphenylamine | 1.0 |
| 156-10-5 | p-Nitrosodiphenylamine | 1.0 |
| 621-64-7 | N-Nitrosodi-n-propylamine | 0.1 |
| 759-73-9 | N-Nitroso-N-ethylurea | 0.1 |
| 684-93-5 | N-Nitroso-N-methylurea | 0.1 |
| 4549-40-0 | N-Nitrosomethylvinylamine | 0.1 |
| 59-89-2 | N-Nitrosomorpholine | 0.1 |
| 16543-55-8 | N-Nitrosonornicotine | 0.1 |
| 100-75-4 | N-Nitrosopiperidine | 0.1 |
| 99-55-8 | 5-Nitro-o-toluidine | 1.0 |
| 27314-13-2 | Norflurazon [4-Chloro-5-(methylamino)-2-[3-(trifluoromethyl)phenyl]-3(2H)-pyridazinone] | 1.0 |
| 2234-13-1 | Octachloronaphthalene | 1.0 |
| 19044-88-3 | Oryzalin [4-(Dipropylamino)-3,5-dinitro-benzene sulfonamide] | 1.0 |
| 20816-12-0 | Osmium tetroxide | 1.0 |
| 301-12-2 | Oxydemeton methyl [S-(2-(Ethylsulfinyl)ethyl) O,O-dimethyl ester phosphorothioic acid] | 1.0 |
| 19666-30-9 | Oxydiazon [3-[2,4-Dichloro-5-(1-methyl-ethoxy)phenyl]- 5-(1,1-dimethyl ethyl)-1,3,4-oxadiazol-2(3H)-one] | 1.0 |
| 42874-03-3 | Oxyfluorfen | 1.0 |
| 10028-15-6 | Ozone | 1.0 |
| 123-63-7 | Paraldehyde | 1.0 |
| 1910-42-5 | Paraquat dichloride | 1.0 |
| 56-38-2 | Parathion [Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl)ester] | 1.0 |
| 1114-71-2 | Pebulate [Butylethylcarbamothioic acid S-propyl ester] | 1.0 |
| 40487-42-1 | Pendimethalin [N-(1-Ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine] | 1.0 |
| 76-01-7 | Pentachloroethane | 1.0 |
| 87-86-5 | Pentachlorophenol (PCP) | 0.1 |
| 57-33-0 | Pentobarbital sodium | 1.0 |
| 79-21-0 | Peracetic acid | 1.0 |
| 594-42-3 | Perchloromethyl mercaptan | 1.0 |
| 52645-53-1 | Permethrin [3-(2,2-Dichloroethenyl)-2,2-dimethylcyclopropanecarboxylic acid, (3-phenoxyphenyl) methyl ester] | 1.0 |
| 85-01-8 | Phenanthrene | 1.0 |
| 108-95-2 | Phenol | 1.0 |
| 26002-80-2 | Phenothrin [2,2-Dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylic acid (3-phenoxyphenyl)methyl ester] | 1.0 |
| 95-54-5 | 1,2-Phenylenediamine | 1.0 |
| 108-45-2 | 1,3-Phenylenediamine | 1.0 |
| 106-50-3 | p-Phenylenediamine | 1.0 |
| 615-28-1 | 1,2-Phenylenediamine dihydrochloride | 1.0 |
| 624-18-0 | 1,4-Phenylenediamine dihydrochloride | 1.0 |
| 90-43-7 | 2-Phenylphenol | 1.0 |
| 57-41-0 | Phenytoin | 0.1 |
| 75-44-5 | Phosgene | 1.0 |
| 7803-51-2 | Phosphine | 1.0 |
| 7664-38-2 | Phosphoric acid | 1.0 |
| 7723-14-0 | Phosphorus (yellow or white) | 1.0 |
| 85-44-9 | Phthalic anhydride | 1.0 |
| 1918-02-1 | Picloram | 1.0 |
| 88-89-1 | Picric acid | 1.0 |
| 51-03-6 | Piperonyl butoxide | 1.0 |
| 29232-93-7 | Pirimiphos methyl [O-(2-(Diethylamino)-6-methyl-4-pyrimidinyl)-O,O-dimethylphosphorothioate] | 1.0 |
| 1336-36-3 | Polychlorinated biphenyls (PCBS) | 0.1 |
| 7758-01-2 | Potassium bromate | 0.1 |



*"Not elsewhere classified" indicated by "n.e.c."

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 128-03-0 | Potassium dimethyldithiocarbamate | 1.0 |
| 137-41-7 | Potassium N-methyldithiocarbamate | 1.0 |
| 41198-08-7 | Profenofos [O-(4-Bromo-2-chlorophenyl)-O-ethyl-S-propyl phosphorothioate] | 1.0 |
| 7287-19-6 | Prometryn [N,N'-Bis(1-methylethyl)-6-methylthio-1,3,5-triazine-2,4-diamine] | 1.0 |
| 23950-58-5 | Pronamide | 1.0 |
| 1918-16-7 | Propachlor [2-Chloro-N-(1-methylethyl)-N-phenylacetamide] | 1.0 |
| 1120-71-4 | Propane sultone | 0.1 |
| 709-98-8 | Propanil [N-(3,4-Dichlorophenyl)-propanamide] | 1.0 |
| 2312-35-8 | Propargite | 1.0 |
| 107-19-7 | Propargyl alcohol | 1.0 |
| 31218-83-4 | Propetamphos [3-[(Ethylamino) methoxyphosphinothioyl]oxy]-2-butenoic acid, 1-methylethyl ester] | 1.0 |
| 60207-90-1 | Propiconazole [1-[2-(2,4-Dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]-methyl-1H-1,2,4,-triazole] | 1.0 |
| 57-57-8 | beta-Propiolactone | 0.1 |
| 123-38-6 | Propionaldehyde | 1.0 |
| 114-26-1 | Propoxur [Phenol, 2-(1-methylethoxy)-, methylcarbamate] | 1.0 |
| 115-07-1 | Propylene (Propene) | 1.0 |
| 75-55-8 | Propyleneimine | 0.1 |
| 75-56-9 | Propylene oxide | 0.1 |
| 110-86-1 | Pyridine | 1.0 |
| 91-22-5 | Quinoline | 1.0 |
| 106-51-4 | Quinone | 1.0 |
| 82-68-8 | Quintozene (Pentachloronitrobenzene) | 1.0 |
| 76578-14-8 | Quizalofop-ethyl [2-[4-[(6-Chloro-2-quinoxalinyl)oxy]phenoxy] propanoic acid ethyl ester] | 1.0 |
| 10453-86-8 | Resmethrin [[5-(Phenylmethyl)-3-furanyl]-methyl-2,2-dimethyl-3-(2-methyl-1-propenyl) cyclopropane carboxylate] | 1.0 |
| 81-07-2 | Saccharin (manufacturing, no supplier notification) | 0.1 |
| 94-59-7 | Safrole | 0.1 |
| 7782-49-2 | Selenium | 1.0 |
| 74051-80-2 | Sethoxydim [2-[1-(Ethoxyimino)butyl]-5-[2-(ethylthio)propyl]-3-hydroxyl-2-cyclohexen-1-one] | 1.0 |
| 7440-22-4 | Silver | 1.0 |
| 122-34-9 | Simazine | 1.0 |
| 26628-22-8 | Sodium azide | 1.0 |
| 1982-69-0 | Sodium dicamba [3,6-Dichloro-2-methoxybenzoic acid, sodium salt] | 1.0 |
| 128-04-1 | Sodium dimethyldithio-carbamate | 1.0 |
| 62-74-8 | Sodium fluoroacetate | 1.0 |
| 7632-00-0 | Sodium nitrite | 1.0 |
| 131-52-2 | Sodium pentachlorophenate | 1.0 |
| 132-27-4 | Sodium o-phenylphenoxide | 0.1 |
| 100-42-5 | Styrene | 0.1 |
| 96-09-3 | Styrene oxide | 0.1 |
| [7664-93-9 | Sulfuric acid (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size) | 1.0 |
| 2699-79-8 | Sulfuryl fluoride (Vikane) | 1.0 |
| 35400-43-2 | Sulprofos [O-Ethyl O-[4-(methylthio)phenyl] phosphorodithioic acid S-propylester] | 1.0 |
| 34014-18-1 | Tebuthiuron [N-[5-(1,1-Dimethylethyl)-1,3,4-thiadiazol-2-yl]-N,N'-dimethylurea] | 1.0 |
| 3383-96-8 | Temephos | 1.0 |
| 5902-51-2 | Terbacil [5-Chloro-3-(1,1-dimethylethyl)-6-methyl-2,4(1H,3H)-pyrimidinedione] | 1.0 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 |
| 127-18-4 | Tetrachloroethylene (Perchloroethylene) | 0.1 |
| 354-11-0 | 1,1,1,2-Tetrachloro-2-fluoroethane (HCFC-121a) | 1.0 |
| 354-14-3 | 1,1,2,2-Tetrachloro-1-fluoroethane (HCFC-121) | 1.0 |
| 961-11-5 | Tetrachlorvinphos [Phosphoric acid, 2-chloro-1-(2,4,5-trichlorophenyl) ethenyl dimethyl ester] | 1.0 |
| 64-75-5 | Tetracycline hydrochloride | 1.0 |

**C.I. means "Color Index"*

*Table II*

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 7696-12-0 | Tetramethrin [2,2-Dimethyl-3-(2-methyl-1-propenyl) cyclopropanecarboxylic acid (1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)methyl ester] | 1.0 |
| 7440-28-0 | Thallium | 1.0 |
| 148-79-8 | Thiabendazole [2-(4-Thiazolyl)-1H-benzimidazole] | 1.0 |
| 62-55-5 | Thioacetamide | 0.1 |
| 28249-77-6 | Thiobencarb [Carbamic acid, diethylthio-, S-(p-chlorobenzyl)ester] | 1.0 |
| 139-65-1 | 4,4'-Thiodianiline | 0.1 |
| 59669-26-0 | Thiodicarb | 1.0 |
| 23564-06-9 | Thiophanate ethyl [[1,2-Phenylenebis-(iminocarbonothioyl)]biscarbamic acid diethylester] | 1.0 |
| 23564-05-8 | Thiophanate methyl | 1.0 |
| 79-19-6 | Thiosemicarbazide | 1.0 |
| 62-56-6 | Thiourea | 0.1 |
| 137-26-8 | Thiram | 1.0 |
| 1314-20-1 | Thorium dioxide | 1.0 |
| 7550-45-0 | Titanium tetrachloride | 1.0 |
| 108-88-3 | Toluene | 1.0 |
| 584-84-9 | Toluene-2,4-diisocyanate | 0.1 |
| 91-08-7 | Toluene-2,6-diisocyanate | 0.1 |
| 26471-62-5 | Toluene diisocyanate (mixed isomers) | 0.1 |
| 95-53-4 | o-Toluidine | 0.1 |
| 636-21-5 | o-Toluidine hydrochloride | 0.1 |
| 8001-35-2 | Toxaphene | 0.1 |
| 43121-43-3 | Triadimefon [1-(4-Chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4- triazol-1-yl)-2-butanone] | 1.0 |
| 2303-17-5 | Triallate | 1.0 |
| 68-76-8 | Triaziquone [2,5-Cyclohexadiene-1,4-dione, 2,3,5-tris(1-aziridinyl)-] | 1.0 |
| 101200-48-0 | Tribenuron methyl [2-[[[[(4-Methoxy-6-methyl-1,3,5-triazin-2-yl)-methylamino]-carbonyl]amino]sulfonyl] benzoic acid-methyl ester) | 1.0 |
| 1983-10-4 | Tributyltin fluoride | 1.0 |
| 2155-70-6 | Tributyltin methacrylate | 1.0 |
| 78-48-8 | S,S,S-Tributyltrithio-phosphate (DEF) | 1.0 |
| 52-68-6 | Trichlorfon [Phosphoric acid,(2,2,2-trichloro-l-hydroxy-ethyl)-,dimethyl ester] | 1.0 |
| 76-02-8 | Trichloroacetyl chloride | 1.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1.0 |
| 71-55-6 | 1,1,1-Trichloroethane (Methyl chloroform) | 1.0 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 |
| 79-01-6 | Trichloroethylene | 0.1 |
| 75-69-4 | Trichlorofluoromethane (CFC-11) | 1.0 |
| 95-95-4 | 2,4,5-Trichlorophenol | 1.0 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.1 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.1 |
| 57213-69-1 | Triclopyr triethylammonium salt | 1.0 |
| 121-44-8 | Triethylamine | 1.0 |
| 1582-09-8 | Trifluralin [Benezeneamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)-] | 1.0 |
| 26644-46-2 | Triforine [N,N'-[1,4-Piperazinediylbis-(2,2,2-trichloroethylidene)] bisformamide] | 1.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.0 |
| 2655-15-4 | 2,3,5-Trimethylphenyl methylcarbamate | 1.0 |
| 639-58-7 | Triphenyltin chloride | 1.0 |
| 76-87-9 | Triphenyltin hydroxide | 1.0 |
| 126-72-7 | Tris(2,3-dibromopropyl) phosphate | 0.1 |
| 72-57-1 | Trypan blue | 0.1 |
| 51-79-6 | Urethane (Ethyl carbamate) | 0.1 |
| 7440-62-2 | Vanadium (fume or dust) | 1.0 |
| 50471-44-8 | Vinclozolin [3-(3,5-Dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione] | 1.0 |
| 108-05-4 | Vinyl acetate | 0.1 |
| 593-60-2 | Vinyl bromide | 0.1 |
| 75-01-4 | Vinyl chloride | 0.1 |
| 75-35-4 | Vinylidene chloride | 1.0 |
| 108-38-3 | m-Xylene | 1.0 |
| 95-47-6 | o-Xylene | 1.0 |
| 106-42-3 | p-Xylene | 1.0 |
| 1330-20-7 | Xylene (mixed isomers) | 1.0 |
| 87-62-7 | 2,6-Xylidine | 0.1 |
| 7440-66-6 | Zinc (fume or dust) | 1.0 |
| 1222-67-7 | Zineb [Carbamodithioic acid, 1,2-ethanediyibis-,zinc complex] | 1.0 |



*"Not elsewhere classified" indicated by "n.e.c."

## b. CAS Numbered List of TRI Chemicals

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 50-00-0 | Formaldehyde | 0.1 |
| 51-03-6 | Piperonyl butoxide | 1.0 |
| 51-21-8 | Fluorouracil (5-Fluorouracil) | 1.0 |
| 51-28-5 | 2,4-Dinitrophenol | 1.0 |
| 51-75-2 | Nitrogen mustard [2-Chloro-N-(2-chloroethyl)-N-methylethanamine] | 0.1 |
| 51-79-6 | Urethane (Ethyl carbamate) | 0.1 |
| 52-68-6 | Trichlorfon [Phosphonic acid, (2,2,2-trichloro-1-hydroxyethyl) dimethyl ester] | 1.0 |
| 52-85-7 | Famphur | 1.0 |
| 53-96-3 | 2-Acetylaminofluorene | 0.1 |
| 55-18-5 | N-Nitrosodiethylamine | 0.1 |
| 55-21-0 | Benzamide | 1.0 |
| 55-38-9 | Fenthion [O,O-Dimethyl O-[3-methyl-4-(methylthio)phenyl] ester, phosphorothioic acid] | 1.0 |
| 55-63-0 | Nitroglycerin | 1.0 |
| 56-23-5 | Carbon tetrachloride | 0.1 |
| 56-35-9 | Bis(tributyltin) oxide | 1.0 |
| 56-38-2 | Parathion [Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester] | 1.0 |
| 57-14-7 | 1,1-Dimethylhydrazine | 0.1 |
| 57-33-0 | Pentobarbital sodium | 1.0 |
| 57-41-0 | Phenytoin | 0.1 |
| 57-57-8 | beta-Propiolactone | 0.1 |
| 57-74-9 | Chlordane [4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-] | 0.1 |
| 58-89-9 | Lindane [Cyclohexane, 1,2,3,4,5,6-hexa-chloro-,(1.alpha.,2.alpha.,3.beta., 4.alpha, 5.alpha.,6.beta.)-] | 0.1 |
| 59-89-2 | N-Nitrosomorpholine | 0.1 |
| 60-09-3 | 4-Aminoazobenzene | 0.1 |
| 60-11-7 | 4-Dimethylaminoazobenzene | 0.1 |
| 60-34-4 | Methyl hydrazine | 1.0 |
| 60-35-5 | Acetamide | 0.1 |
| 60-51-5 | Dimethoate | 1.0 |
| 61-82-5 | Amitrole | 0.1 |
| 62-53-3 | Aniline | 1.0 |
| 62-55-5 | Thioacetamide | 0.1 |
| 62-56-6 | Thiourea | 0.1 |
| 62-73-7 | Dichlorvos [Phosphoric acid, 2,2-dichloroethenyl dimethyl ester] | 0.1 |
| 62-74-8 | Sodium fluoroacetate | 1.0 |
| 62-75-9 | N-Nitrosodimethylamine | 0.1 |
| 63-25-2 | Carbaryl [1-Naphthalenol, methylcarbamate] | 1.0 |
| 64-18-6 | Formic acid | 1.0 |
| 64-67-5 | Diethyl sulfate | 0.1 |
| 64-75-5 | Tetracycline hydrochloride | 1.0 |
| 67-56-1 | Methanol | 1.0 |
| 67-63-0 | Isopropyl alcohol (manufacturing-strong acid process, no supplier notification) | 1.0 |
| 67-66-3 | Chloroform | 0.1 |
| 67-72-1 | Hexachloroethane | 1.0 |
| 68-12-2 | N,N-Dimethylformamide | 0.1 |
| 68-76-8 | Triaziquone [2,5-Cyclohexadiene-1,4-dione, 2,3,5-tris(1-aziridinyl)-] | 1.0 |
| 70-30-4 | Hexachlorophene | 1.0 |
| 71-36-3 | n-Butyl alcohol | 1.0 |
| 71-43-2 | Benzene | 0.1 |
| 71-55-6 | 1,1,1-Trichloroethane (Methyl chloroform) | 1.0 |
| 72-43-5 | Methoxychlor [Benzene, 1,1'-(2,2,2-trichloro-ethylidene)bis[4-methoxy-]] | 1.0 |
| 72-57-1 | Trypan blue | 0.1 |
| 74-83-9 | Bromomethane (Methyl bromide) | 1.0 |
| 74-85-1 | Ethylene | 1.0 |
| 74-87-3 | Chloromethane (Methyl chloride) | 1.0 |
| 74-88-4 | Methyl iodide | 1.0 |
| 74-90-8 | Hydrogen cyanide | 1.0 |
| 74-95-3 | Methylene bromide | 1.0 |
| 75-00-3 | Chloroethane (Ethyl chloride) | 1.0 |
| 75-01-4 | Vinyl chloride | 0.1 |
| 75-05-8 | Acetonitrile | 1.0 |
| 75-07-0 | Acetaldehyde | 0.1 |
| 75-09-2 | Dichloromethane (Methylene chloride) | 0.1 |
| 75-15-0 | Carbon disulfide | 1.0 |
| 75-21-8 | Ethylene oxide | 0.1 |
| 75-25-2 | Bromoform (Tribromomethane) | 1.0 |
| 75-27-4 | Dichlorobromomethane | 1.0 |

**C.I. means "Color Index"*

*Table II*

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 75-34-3 | Ethylidene dichloride | 1.0 |
| 75-35-4 | Vinylidene chloride | 1.0 |
| 75-43-4 | Dichlorofluoromethane (HCFC-21) | 1.0 |
| 75-44-5 | Phosgene | 1.0 |
| 75-45-6 | Chlorodifluoromethane (HCFC-22) | 1.0 |
| 75-55-8 | Propyleneimine | 0.1 |
| 75-56-9 | Propylene oxide | 0.1 |
| 75-63-8 | Bromotrifluoromethane (Halon 1301) | 1.0 |
| 75-65-0 | tert-Butyl alcohol | 1.0 |
| 75-68-3 | 1-Chloro-1,1-difluoroethane (HCFC-142b) | 1.0 |
| 75-69-4 | Trichlorofluoromethane (CFC-11) | 1.0 |
| 75-71-8 | Dichlorodifluoromethane (CFC-12) | 1.0 |
| 75-72-9 | Chlorotrifluoromethane (CFC-13) | 1.0 |
| 75-86-5 | 2-Methyllactonitrile | 1.0 |
| 75-88-7 | 2-Chloro-1,1,1-trifluoroethane (HCFC-133a) | 1.0 |
| 76-01-7 | Pentachloroethane | 1.0 |
| 76-02-8 | Trichloroacetyl chloride | 1.0 |
| 76-06-2 | Chloropicrin | 1.0 |
| 76-13-1 | Freon 113 [Ethane, 1,1,2-trichloro-1,2,2,-trifluoro-] | 1.0 |
| 76-14-2 | Dichlorotetrafluoroethane (CFC-114) | 1.0 |
| 76-15-3 | Monochloropentafluoroethane (CFC-115) | 1.0 |
| 76-44-8 | Heptachlor [1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene] | 0.1 |
| 76-87-9 | Triphenyltin hydroxide | 1.0 |
| 77-47-4 | Hexachlorocyclopentadiene | 1.0 |
| 77-73-6 | Dicyclopentadiene | 1.0 |
| 77-78-1 | Dimethyl sulfate | 0.1 |
| 78-48-8 | S,S,S-Tributyltrithiophosphate (DEF) | 1.0 |
| 78-84-2 | Isobutyraldehyde | 1.0 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 |
| 78-88-6 | 2,3-Dichloropropene | 1.0 |
| 78-92-2 | sec-Butyl alcohol | 1.0 |
| 78-93-3 | Methyl ethyl ketone | 1.0 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 |
| 79-01-6 | Trichloroethylene | 0.1 |
| 79-06-1 | Acrylamide | 0.1 |
| 79-10-7 | Acrylic acid | 1.0 |
| 79-11-8 | Chloroacetic acid | 1.0 |
| 79-19-6 | Thiosemicarbazide | 1.0 |
| 79-21-0 | Peracetic acid | 1.0 |
| 79-22-1 | Methyl chlorocarbonate | 1.0 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 |
| 79-44-7 | Dimethylcarbamyl chloride | 0.1 |
| 79-46-9 | 2-Nitropropane | 0.1 |
| 80-05-7 | 4,4'-Isopropylidenediphenol | 1.0 |
| 80-15-9 | Cumene hydroperoxide | 1.0 |
| 80-62-6 | Methyl methacrylate | 1.0 |
| 81-07-2 | Saccharin (manufacturing, no supplier notification) | 0.1 |
| 81-88-9 | C.I. Food Red 15 | 0.1 |
| 82-28-0 | 1-Amino-2-methylanthraquinone | 0.1 |
| 82-68-8 | Quintozene [Pentachloronitrobenzene] | 1.0 |
| 84-74-2 | Dibutyl phthalate | 1.0 |
| 85-01-8 | Phenanthrene | 1.0 |
| 85-44-9 | Phthalic anhydride | 1.0 |
| 86-30-6 | N-Nitrosodiphenylamine | 1.0 |
| 87-62-7 | 2,6-Xylidine | 0.1 |
| 87-68-3 | Hexachloro-1,3-butadiene | 1.0 |
| 87-86-5 | Pentachlorophenol (PCP) | 0.1 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.1 |
| 88-75-5 | 2-Nitrophenol | 1.0 |
| 88-85-7 | Dinitrobutyl phenol (Dinoseb) | 1.0 |
| 88-89-1 | Picric acid | 1.0 |
| 90-04-0 | o-Anisidine | 0.1 |
| 90-43-7 | 2-Phenylphenol | 1.0 |
| 90-94-8 | Michler's ketone | 0.1 |
| 91-08-7 | Toluene-2,6-diisocyanate | 0.1 |
| 91-20-3 | Naphthalene | 1.0 |
| 91-22-5 | Quinoline | 1.0 |
| 91-59-8 | beta-Naphthylamine | 0.1 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 0.1 |
| 92-52-4 | Biphenyl | 1.0 |
| 92-67-1 | 4-Aminobiphenyl | 0.1 |
| 92-87-5 | Benzidine | 0.1 |
| 92-93-3 | 4-Nitrobiphenyl | 0.1 |
| 93-65-2 | Mecoprop | 0.1 |
| 94-11-1 | 2,4-D isopropyl ester | 0.1 |
| 94-36-0 | Benzoyl peroxide | 1.0 |
| 94-58-6 | Dihydrosafrole | 0.1 |
| 94-59-7 | Safrole | 0.1 |
| 94-74-6 | Methoxone ((4-Chloro-2-methylphenoxy) acetic acid) (MCPA) | 0.1 |
| 94-75-7 | 2,4-D [Acetic acid, (2,4-dichlorophenoxy)-] | 0.1 |
| 94-80-4 | 2,4-D butyl ester | 0.1 |



*"Not elsewhere classified" indicated by "n.e.c."

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 94-82-6 | 2,4-DB | 1.0 |
| 95-47-6 | o-Xylene | 1.0 |
| 95-48-7 | o-Cresol | 1.0 |
| 95-50-1 | 1,2-Dichlorobenzene | 1.0 |
| 95-53-4 | o-Toluidine | 0.1 |
| 95-54-5 | 1,2-Phenylenediamine | 1.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.0 |
| 95-69-2 | p-Chloro-o-toluidine | 0.1 |
| 95-80-7 | 2,4-Diaminotoluene | 0.1 |
| 95-95-4 | 2,4,5-Trichlorophenol | 1.0 |
| 96-09-3 | Styrene oxide | 0.1 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane (DBCP) | 0.1 |
| 96-18-4 | 1,2,3-Trichloropropane | 0.1 |
| 96-33-3 | Methyl acrylate | 1.0 |
| 96-45-7 | Ethylene thiourea | 0.1 |
| 97-23-4 | Dichlorophene [2,2'-Methylenebis(4-chlorophenol)] | 1.0 |
| 97-56-3 | C.I. Solvent Yellow 3 | 1.0 |
| 98-07-7 | Benzoic trichloride (Benzotrichloride) | 0.1 |
| 98-82-8 | Cumene | 1.0 |
| 98-86-2 | Acetophenone | 1.0 |
| 98-87-3 | Benzal chloride | 1.0 |
| 98-88-4 | Benzoyl chloride | 1.0 |
| 98-95-3 | Nitrobenzene | 0.1 |
| 99-30-9 | Dichloran [2,6-Dichloro-4-nitroaniline] | 1.0 |
| 99-55-8 | 5-Nitro-o-toluidine | 1.0 |
| 99-59-2 | 5-Nitro-o-anisidine | 1.0 |
| 99-65-0 | m-Dinitrobenzene | 1.0 |
| 100-01-6 | p-Nitroaniline | 1.0 |
| 100-02-7 | 4-Nitrophenol | 1.0 |
| 100-25-4 | p-Dinitrobenzene | 1.0 |
| 100-41-4 | Ethylbenzene | 1.0 |
| 100-42-5 | Styrene | 0.1 |
| 100-44-7 | Benzyl chloride | 1.0 |
| 100-75-4 | N-Nitrosopiperidine | 0.1 |
| 101-05-3 | Anilazine [4,6-Dichloro-N-(2-chlorophenyl)-1,3,5-triazin-2-amine] | 1.0 |
| 101-14-4 | 4,4'-Methylenebis(2-chloroaniline)(MBOCA) | 0.1 |
| 101-61-1 | 4,4'-Methylenebis(N,N-dimethyl)benzenamine | 0.1 |
| 101-77-9 | 4,4'-Methylenedianiline | 0.1 |
| 101-80-4 | 4,4'-Diaminodiphenyl ether | 0.1 |
| 101-90-6 | Diglycidyl resorcinol ether | 0.1 |
| 104-12-1 | p-Chlorophenyl isocyanate | 1.0 |
| 104-94-9 | p-Anisidine | 1.0 |
| 105-67-9 | 2,4-Dimethylphenol | 1.0 |
| 106-42-3 | p-Xylene | 1.0 |
| 106-44-5 | p-Cresol | 1.0 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.1 |
| 106-47-8 | p-Chloroaniline | 0.1 |
| 106-50-3 | p-Phenylenediamine | 1.0 |
| 106-51-4 | Quinone | 1.0 |
| 106-88-7 | 1,2-Butylene oxide | 1.0 |
| 106-89-8 | Epichlorohydrin | 0.1 |
| 106-93-4 | 1,2-Dibromoethane (Ethylene dibromide) | 0.1 |
| 106-99-0 | 1,3-Butadiene | 0.1 |
| 107-02-8 | Acrolein | 1.0 |
| 107-05-1 | Allyl chloride | 1.0 |
| 107-06-2 | 1,2-Dichloroethane (Ethylene dichloride) | 0.1 |
| 107-11-9 | Allylamine | 1.0 |
| 107-13-1 | Acrylonitrile | 0.1 |
| 107-18-6 | Allyl alcohol | 1.0 |
| 107-19-7 | Propargyl alcohol | 1.0 |
| 107-21-1 | Ethylene glycol | 1.0 |
| 107-30-2 | Chloromethyl methyl ether | 0.1 |
| 108-05-4 | Vinyl acetate | 0.1 |
| 108-10-1 | Methyl isobutyl ketone | 1.0 |
| 108-31-6 | Maleic anhydride | 1.0 |
| 108-38-3 | m-Xylene | 1.0 |
| 108-39-4 | m-Cresol | 1.0 |
| 108-45-2 | 1,3-Phenylenediamine | 1.0 |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 1.0 |
| 108-88-3 | Toluene | 1.0 |
| 108-90-7 | Chlorobenzene | 1.0 |
| 108-93-0 | Cyclohexanol | 1.0 |
| 108-95-2 | Phenol | 1.0 |
| 109-06-8 | 2-Methylpyridine | 1.0 |
| 109-77-3 | Malononitrile | 1.0 |
| 109-86-4 | 2-Methoxyethanol | 1.0 |
| 110-54-3 | n-Hexane | 1.0 |
| 110-57-6 | trans-1,4-Dichloro-2-butene | 1.0 |
| 110-80-5 | 2-Ethoxyethanol | 1.0 |
| 110-82-7 | Cyclohexane | 1.0 |
| 110-86-1 | Pyridine | 1.0 |
| 111-42-2 | Diethanolamine | 1.0 |
| 111-44-4 | Bis(2-chloroethyl) ether | 1.0 |
| 111-91-1 | Bis(2-chloroethoxy) methane | 1.0 |
| 114-26-1 | Propoxur [Phenol, 2-(1-methylethoxy)-, methylcarbamate] | 1.0 |
| 115-07-1 | Propylene (Propene) | 1.0 |
| 115-28-6 | Chlorendic acid | 0.1 |

**C.I. means "Color Index"*

*Table II*

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 115-32-2 | Dicofol [Benzenemethanol, 4-chloro-.alpha. -4-(chlorophenyl)-.alpha.-(trichloromethyl)-] | 1.0 |
| 116-06-3 | Aldicarb | 1.0 |
| 117-79-3 | 2-Aminoanthraquinone | 0.1 |
| 117-81-7 | Di(2-ethylhexyl) phthalate | 0.1 |
| 118-74-1 | Hexachlorobenzene | 0.1 |
| 119-90-4 | 3,3'-Dimethoxybenzidine | 0.1 |
| 119-93-7 | 3,3'-Dimethylbenzidine (o-Tolidine) | 0.1 |
| 120-12-7 | Anthracene | 1.0 |
| 120-36-5 | 2,4-DP | 0.1 |
| 120-58-1 | Isosafrole | 1.0 |
| 120-71-8 | p-Cresidine | 0.1 |
| 120-80-9 | Catechol | 1.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1.0 |
| 120-83-2 | 2,4-Dichlorophenol | 1.0 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.1 |
| 121-44-8 | Triethylamine | 1.0 |
| 121-69-7 | N,N-Dimethylaniline | 1.0 |
| 121-75-5 | Malathion | 1.0 |
| 122-34-9 | Simazine | 1.0 |
| 122-39-4 | Diphenylamine | 1.0 |
| 122-66-7 | 1,2-Diphenylhydrazine (Hydrazobenzene) | 0.1 |
| 123-31-9 | Hydroquinone | 1.0 |
| 123-38-6 | Propionaldehyde | 1.0 |
| 123-63-7 | Paraldehyde | 1.0 |
| 123-72-8 | Butyraldehyde | 1.0 |
| 123-91-1 | 1,4-Dioxane | 0.1 |
| 124-40-3 | Dimethylamine | 1.0 |
| 124-73-2 | Dibromotetrafluoroethane (Halon 2402) | 1.0 |
| 126-72-7 | Tris(2,3-dibromopropyl) phosphate | 0.1 |
| 126-98-7 | Methacrylonitrile | 1.0 |
| 126-99-8 | Chloroprene | 1.0 |
| 127-18-4 | Tetrachloroethylene (Perchloroethylene) | 0.1 |
| 128-03-0 | Potassium dimethyldithiocarbamate | 1.0 |
| 128-04-1 | Sodium dimethyldithiocarbamate | 1.0 |
| 128-66-5 | C.I. Vat Yellow 4 | 1.0 |
| 131-11-3 | Dimethyl phthalate | 1.0 |
| 131-52-2 | Sodium pentachlorophenate | 1.0 |
| 132-27-4 | Sodium o-phenylphenoxide | 0.1 |
| 132-64-9 | Dibenzofuran | 1.0 |
| 133-06-2 | Captan [1H-Isoindole-1,3(2H)-dione, 3a, 4,7,7a-tetrahydro-2-[(trichloromethyl)thio]-] | 1.0 |
| 133-07-3 | Folpet | 1.0 |
| 133-90-4 | Chloramben [Benzoic acid, 3-amino-2,5-dichloro-] | 1.0 |
| 134-29-2 | o-Anisidine hydrochloride | 0.1 |
| 134-32-7 | alpha-Naphthylamine | 0.1 |
| 135-20-6 | Cupferron [Benzeneamine, N-hydroxy-N-nitroso, ammonium salt] | 0.1 |
| 136-45-8 | Dipropyl isocinchomeronate | 1.0 |
| 137-26-8 | Thiram | 1.0 |
| 137-41-7 | Potassium N-methyldithiocarbamate | 1.0 |
| 137-42-8 | Metham sodium (Sodium methyldithiocarbamate) | 1.0 |
| 138-93-2 | Disodium cyanodithioimidocarbonate | 1.0 |
| 139-13-9 | Nitrilotriacetic acid | 0.1 |
| 139-65-1 | 4,4'-Thiodianiline | 0.1 |
| 140-88-5 | Ethyl acrylate | 0.1 |
| 141-32-2 | Butyl acrylate | 1.0 |
| 142-59-6 | Nabam | 1.0 |
| 148-79-8 | Thiabendazole [2-(4-Thiazolyl)-1H-benzimidazole] | 1.0 |
| 149-30-4 | 2-Mercaptobenzothiazole (MBT) | 1.0 |
| 150-50-5 | Merphos | 1.0 |
| 150-68-5 | Monuron | 1.0 |
| 151-56-4 | Ethyleneimine (Aziridine) | 0.1 |
| 156-10-5 | p-Nitrosodiphenylamine | 1.0 |
| 156-62-7 | Calcium cyanamide | 1.0 |
| 298-00-0 | Methyl parathion | 1.0 |
| 300-76-5 | Naled | 1.0 |
| 301-12-2 | Oxydemeton methyl [S-(2-(Ethylsulfinyl)ethyl) O,O-dimethyl ester phosphorothioic acid] | 1.0 |
| 302-01-2 | Hydrazine | 0.1 |
| 306-83-2 | 2,2-Dichloro-1,1,1-trifluoroethane (HCFC-123) | 1.0 |
| 309-00-2 | Aldrin [1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1.alpha.,4.alpha.,4a.beta., 5.alpha.,8.alpha.,8a.beta.)-] | 1.0 |



*"Not elsewhere classified" indicated by "n.e.c."

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 314-40-9 | Bromacil (5-Bromo-6-methyl-3-(1-methyl-propyl)-2,4(1H,3H)-pyrimidine-dione) | 1.0 |
| 319-84-6 | alpha-Hexachlorocyclohexane | 1.0 |
| 330-54-1 | Diuron | 1.0 |
| 330-55-2 | Linuron | 1.0 |
| 333-41-5 | Diazinon | 1.0 |
| 334-88-3 | Diazomethane | 1.0 |
| 353-59-3 | Bromochlorodifluoromethane (Halon 1211) | 1.0 |
| 354-11-0 | 1,1,1,2-Tetrachloro-2-fluoro-ethane (HCFC-121a) | 1.0 |
| 354-14-3 | 1,1,2,2-Tetrachloro-1-fluoroethane (HCFC-121) | 1.0 |
| 354-23-4 | 1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a) | 1.0 |
| 354-25-6 | 1-Chloro-1,1,2,2-tetrafluoroethane (HCFC-124a) | 1.0 |
| 357-57-3 | Brucine | 1.0 |
| 422-44-6 | 1,2-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225bb) | 1.0 |
| 422-48-0 | 2,3-Dichloro-1,1,1,2,3-pentafluoropropane (HCFC-225ba) | 1.0 |
| 422-56-0 | 3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca) | 1.0 |
| 431-86-7 | 1,2-Dichloro-1,1,3,3,3-pentafluoropropane (HCFC-225da) | 1.0 |
| 460-35-5 | 3-Chloro-1,1,1-trifluoropropane (HCFC-253fb) | 1.0 |
| 463-58-1 | Carbonyl sulfide | 1.0 |
| 465-73-6 | Isodrin | 1.0 |
| 492-80-8 | C.I. Solvent Yellow 34 (Auramine) | 0.1 |
| 505-60-2 | Mustard gas [Ethane, 1,1'-thiobis[2-chloro-]] | 0.1 |
| 507-55-1 | 1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb) | 1.0 |
| 510-15-6 | Chlorobenzilate [Benzeneacetic acid, 4-chloro-. alpha.-(4-chlorophenyl)-.alpha.-hydroxy-, ethyl ester] | 1.0 |
| 528-29-0 | o-Dinitrobenzene | 1.0 |
| 532-27-4 | 2-Chloroacetophenone | 1.0 |
| 533-74-4 | Dazomet (Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione) | 1.0 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 1.0 |
| 540-59-0 | 1,2-Dichloroethylene | 1.0 |
| 541-41-3 | Ethyl chloroformate | 1.0 |
| 541-53-7 | 2,4-Dithiobiuret | 1.0 |
| 541-73-1 | 1,3-Dichlorobenzene | 1.0 |
| 542-75-6 | 1,3-Dichloropropylene | 0.1 |
| 542-76-7 | 3-Chloropropionitrile | 1.0 |
| 542-88-1 | Bis(chloromethyl) ether | 0.1 |
| 554-13-2 | Lithium carbonate | 1.0 |
| 556-61-6 | Methyl isothiocyanate [Isothiocyanatomethane] | 1.0 |
| 563-47-3 | 3-Chloro-2-methyl-1-propene | 0.1 |
| 569-64-2 | C.I. Basic Green 4 | 1.0 |
| 584-84-9 | Toluene-2,4-diisocyanate | 0.1 |
| 593-60-2 | Vinyl bromide | 0.1 |
| 594-42-3 | Perchloromethyl mercaptan | 1.0 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.1 |
| 612-82-8 | 3,3'-Dimethylbenzidine dihydrochloride (o-Tolidine dihydrochloride) | 0.1 |
| 612-83-9 | 3,3'-Dichlorobenzidine dihydrochloride | 0.1 |
| 615-05-4 | 2,4-Diaminoanisole | 0.1 |
| 615-28-1 | 1,2-Phenylenediamine dihydrochloride | 1.0 |
| 621-64-7 | N-Nitrosodi-n-propylamine | 0.1 |
| 624-18-0 | 1,4-Phenylenediamine dihydrochloride | 1.0 |
| 624-83-9 | Methyl isocyanate | 1.0 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 |
| 636-21-5 | o-Toluidine hydrochloride | 0.1 |
| 639-58-7 | Triphenyltin chloride | 1.0 |
| 680-31-9 | Hexamethylphosphoramide | 0.1 |
| 684-93-5 | N-Nitroso-N-methylurea | 0.1 |
| 709-98-8 | Propanil (N-(3,4-Dichlorophenyl) propanamide) | 1.0 |
| 759-73-9 | N-Nitroso-N-ethylurea | 0.1 |
| 759-94-4 | Ethyl dipropylthiocarbamate (EPTC) | 1.0 |
| 764-41-0 | 1,4-Dichloro-2-butene | 1.0 |
| 812-04-4 | 1,1-Dichloro-1,2,2-trifluoroethane (HCFC-123b) | 1.0 |
| 834-12-8 | Ametryn (N-Ethyl-N'-(1-methylethyl)-6-(methylthio)-1,3,5,-triazine-2,4-diamine) | 1.0 |
| 842-07-9 | C.I. Solvent Yellow 14 | 1.0 |

**C.I. means "Color Index"*

*Table II*

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 872-50-4 | N-Methyl-2-pyrrolidone | 1.0 |
| 924-16-3 | N-Nitrosodi-n-butylamine | 0.1 |
| 924-42-5 | N-Methylolacrylamide | 1.0 |
| 957-51-7 | Diphenamid | 1.0 |
| 961-11-5 | Tetrachlorvinphos [Phosphoric acid, 2-chloro-1-(2,4,5-trichlorophenyl)ethenyl dimethyl ester] | 1.0 |
| 989-38-8 | C.I. Basic Red 1 | 1.0 |
| 1114-71-2 | Pebulate [Butylethylcarbamothioic acid S-propyl ester] | 1.0 |
| 1120-71-4 | Propane sultone | 0.1 |
| 1134-23-2 | Cycloate | 1.0 |
| 1163-19-5 | Decabromodiphenyl oxide | 1.0 |
| 1313-27-5 | Molybdenum trioxide | 1.0 |
| 1314-20-1 | Thorium dioxide | 1.0 |
| 1319-77-3 | Cresol (mixed isomers) | 1.0 |
| 1320-18-9 | 2,4-D propylene glycol butyl ether ester | 0.1 |
| 1330-20-7 | Xylene (mixed isomers) | 1.0 |
| 1332-21-4 | Asbestos (friable) | 0.1 |
| 1335-87-1 | Hexachloronaphthalene | 1.0 |
| 1336-36-3 | Polychlorinated biphenyls (PCBs) | 0.1 |
| 1344-28-1 | Aluminum oxide (fibrous forms) | 1.0 |
| 1464-53-5 | Diepoxybutane | 0.1 |
| 1563-66-2 | Carbofuran | 1.0 |
| 1582-09-8 | Trifluralin [Benezeneamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)-] | 1.0 |
| 1634-04-4 | Methyl tert-butyl ether | 1.0 |
| 1649-08-7 | 1,2-Dichloro-1,1-difluoroethane (HCFC-132b) | 1.0 |
| 1689-84-5 | Bromoxynil (3,5-Dibromo-4-hydroxybenzonitrile) | 1.0 |
| 1689-99-2 | Bromoxynil octanoate (Octanoic acid, 2,6-dibromo-4-cyanophenyl ester) | 1.0 |
| 1717-00-6 | 1,1-Dichloro-1-fluoroethane (HCFC-141b) | 1.0 |
| 1836-75-5 | Nitrofen [Benzene, 2,4-dichloro-1-(4-nitrophenoxy)-] | 0.1 |
| 1861-40-1 | Benfluralin (N-Butyl-N-ethyl-2,6-dinitro-4-(trifluoromethyl)benzenamine) | 1.0 |
| 1897-45-6 | Chlorothalonil [1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-] | 1.0 |
| 1910-42-5 | Paraquat dichloride | 1.0 |
| 1912-24-9 | Atrazine (6-Chloro-N-ethyl-N'-(1-methyl-ethyl)-1,3,5-triazine-2,4-diamine) | 0.1 |
| 1918-00-9 | Dicamba (3,6-Dichloro-2-methoxybenzoic acid) | 1.0 |
| 1918-02-1 | Picloram | 1.0 |
| 1918-16-7 | Propachlor [2-Chloro-N-(1-methylethyl)-N-phenylacetamide] | 1.0 |
| 1928-43-4 | 2,4-D 2-ethylhexyl ester | 0.1 |
| 1929-73-3 | 2,4-D butoxyethyl ester | 0.1 |
| 1929-82-4 | Nitrapyrin (2-Chloro-6-(trichloromethyl)-pyridine) | 1.0 |
| 1937-37-7 | C.I. Direct Black 38 | 0.1 |
| 1982-69-0 | Sodium dicamba [3,6-Dichloro-2-methoxybenzoic acid, sodium salt] | 1.0 |
| 1983-10-4 | Tributyltin fluoride | 1.0 |
| 2032-65-7 | Methiocarb | 1.0 |
| 2155-70-6 | Tributyltin methacrylate | 1.0 |
| 2164-07-0 | Dipotassium endothall [7-Oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid, dipotassium salt] | 1.0 |
| 2164-17-2 | Fluometuron [Urea, N,N-dimethyl-N'-[3-(trifluoromethyl)phenyl]-] | 1.0 |
| 2212-67-1 | Molinate (1H-Azepine-1-carbothioic acid, hexahydro-S-ethyl ester) | 1.0 |
| 2234-13-1 | Octachloronaphthalene | 1.0 |
| 2300-66-5 | Dimethylamine dicamba | 1.0 |
| 2303-16-4 | Diallate [Carbamothioic acid, bis(1-methyl-ethyl)-S-(2,3-dichloro-2-propenyl) ester] | 1.0 |
| 2303-17-5 | Triallate | 1.0 |
| 2312-35-8 | Propargite | 1.0 |
| 2439-01-2 | Chinomethionat [6-Methyl-1,3-dithiolo[4,5-b]-quinoxalin-2-one] | 1.0 |
| 2439-10-3 | Dodine [Dodecylguanidine monoacetate] | 1.0 |
| 2524-03-0 | Dimethyl chlorothiophosphate | 1.0 |



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| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 2602-46-2 | C.I. Direct Blue 6 | 0.1 |
| 2655-15-4 | 2,3,5-Trimethylphenyl methyl carbamate | 1.0 |
| 2699-79-8 | Sulfuryl fluoride (Vikane) | 1.0 |
| 2702-72-9 | 2,4-D sodium salt | 0.1 |
| 2832-40-8 | C.I. Disperse Yellow 3 | 1.0 |
| 2837-89-0 | 2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124) | 1.0 |
| 2971-38-2 | 2,4-D Chlorocrotyl ester | 0.1 |
| 3118-97-6 | C.I. Solvent Orange 7 | 1.0 |
| 3383-96-8 | Temephos | 1.0 |
| 3653-48-3 | Methoxone sodium salt ((4-Chloro-2-methylphenoxy) acetate sodium salt) | 0.1 |
| 3761-53-3 | C.I. Food Red 5 | 0.1 |
| 4080-31-3 | 1-(3-Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride | 1.0 |
| 4170-30-3 | Crotonaldehyde | 1.0 |
| 4549-40-0 | N-Nitrosomethylvinylamine | 0.1 |
| 4680-78-8 | C.I. Acid Green 3 | 1.0 |
| 5234-68-4 | Carboxin (5,6-Dihydro-2-methyl-N-phenyl-1,4-oxathiin-3-carboxamide) | 1.0 |
| 5598-13-0 | Chlorpyrifos methyl [O,O-Dimethyl-O-(3,5,6-trichloro-2-pyridyl)phosphorothioate] | 1.0 |
| 5902-51-2 | Terbacil [5-Chloro-3-(1,1-dimethylethyl)-6-methyl-2,4(1H,3H)-pyrimidinedione] | 1.0 |
| 6459-94-5 | C.I. Acid Red 114 | 0.1 |
| 7287-19-6 | Prometryn [N,N'-Bis(1-methylethyl)-6-methylthio-1,3,5-triazine-2,4-diamine] | 1.0 |
| 7429-90-5 | Aluminum (fume or dust) | 1.0 |
| 7439-92-1 | Lead | 0.1 |
| 7439-96-5 | Manganese | 1.0 |
| 7439-97-6 | Mercury | 1.0 |
| 7440-02-0 | Nickel | 0.1 |
| 7440-22-4 | Silver | 1.0 |
| 7440-28-0 | Thallium | 1.0 |
| 7440-36-0 | Antimony | 1.0 |
| 7440-38-2 | Arsenic | 0.1 |
| 7440-39-3 | Barium | 1.0 |
| 7440-41-7 | Beryllium | 0.1 |
| 7440-43-9 | Cadmium | 0.1 |
| 7440-47-3 | Chromium | 1.0 |
| 7440-48-4 | Cobalt | 0.1 |
| 7440-50-8 | Copper | 1.0 |
| 7440-62-2 | Vanadium (fume or dust) | 1.0 |
| 7440-66-6 | Zinc (fume or dust) | 1.0 |
| 7550-45-0 | Titanium tetrachloride | 1.0 |
| 7632-00-0 | Sodium nitrite | 1.0 |
| 7637-07-2 | Boron trifluoride | 1.0 |
| 7647-01-0 | Hydrochloric acid (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size) | 1.0 |
| 7664-38-2 | Phosphoric acid | 1.0 |
| 7664-39-3 | Hydrogen fluoride | 1.0 |
| 7664-41-7 | Ammonia (includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing) | 1.0 |
| 7664-93-9 | Sulfuric acid (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size) | 1.0 |
| 7696-12-0 | Tetramethrin [2,2-Dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylic acid (1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)methyl ester] | 1.0 |
| 7697-37-2 | Nitric acid | 1.0 |
| 7723-14-0 | Phosphorus (yellow or white) | 1.0 |
| 7726-95-6 | Bromine | 1.0 |
| 7758-01-2 | Potassium bromate | 0.1 |
| 7782-41-4 | Fluorine | 1.0 |
| 7782-49-2 | Selenium | 1.0 |
| 7782-50-5 | Chlorine | 1.0 |
| 7786-34-7 | Mevinphos | 1.0 |
| 7803-51-2 | Phosphine | 1.0 |
| 8001-35-2 | Toxaphene | 0.1 |
| 8001-58-9 | Creosote | 0.1 |
| 9006-42-2 | Metiram | 1.0 |
| 10028-15-6 | Ozone | 1.0 |
| 10034-93-2 | Hydrazine sulfate | 0.1 |
| 10049-04-4 | Chlorine dioxide | 1.0 |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.1 |
| 10294-34-5 | Boron trichloride | 1.0 |

**C.I. means "Color Index"*

*Table II*

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 10453-86-8 | Resmethrin [[5-(Phenylmethyl)-3-furanyl] methyl- 2,2-dimethyl-3-(2-methyl-1-propenyl) cyclopropane-carboxylate]] | 1.0 |
| 12122-67-7 | Zineb [Carbamodithioic acid, 1,2-ethanediylbis-, zinc complex] | 1.0 |
| 12427-38-2 | Maneb [Carbamodithioic acid, 1,2-ethanediylbis-, manganese complex] | 1.0 |
| 13194-48-4 | Ethoprop [Phosphorodithioic acid O-ethyl S,S-dipropyl ester] | 1.0 |
| 13356-08-6 | Fenbutatin oxide (Hexakis(2-methyl-2-phenylpropyl)distannoxane) | 1.0 |
| 13463-40-6 | Iron pentacarbonyl | 1.0 |
| 13474-88-9 | 1,1-Dichloro-1,2,2,3,3-pentafluoropropane (HCFC-225cc) | 1.0 |
| 13684-56-5 | Desmedipham | 1.0 |
| 14484-64-1 | Ferbam [Tris(dimethylcarbamodithioato-S,S')iron] | 1.0 |
| 15972-60-8 | Alachlor | 1.0 |
| 16071-86-6 | C.I. Direct Brown 95 | 0.1 |
| 16543-55-8 | N-Nitrosonornicotine | 0.1 |
| 17804-35-2 | Benomyl | 1.0 |
| 19044-88-3 | Oryzalin [4-(Dipropylamino)-3,5-dinitrobenzenesulfonamide] | 1.0 |
| 19666-30-9 | Oxydiazon [3-[2,4-Dichloro-5-(1-methyl-ethoxy)phenyl]-5-(1,1-dimethyl-ethyl)-1,3,4-oxadiazol-2(3H)-one] | 1.0 |
| 20325-40-0 | 3,3'-Dimethoxybenzidine dihydrochloride (o-Dianisidine dihydrochloride) | 0.1 |
| 20354-26-1 | Methazole [2-(3,4-Dichlorophenyl)-4-methyl- 1,2,4-oxadiazolidine-3,5-dione] | 1.0 |
| 20816-12-0 | Osmium tetroxide | 1.0 |
| 20859-73-8 | Aluminum phosphide | 1.0 |
| 21087-64-9 | Metribuzin | 1.0 |
| 21725-46-2 | Cyanazine | 1.0 |
| 22781-23-3 | Bendiocarb [2,2-Dimethyl-1,3-benzodioxol-4-olmethylcarbamate] | 1.0 |
| 23564-05-8 | Thiophanate methyl | 1.0 |
| 23564-06-9 | Thiophanate ethyl [[1,2-Phenylenebis-(iminocarbonothioyl)]biscarbamic acid diethyl ester] | 1.0 |
| 23950-58-5 | Pronamide | 1.0 |
| 25311-71-1 | Isofenphos [2-[[Ethoxyl[(1-methylethyl)-amino]phosphinothioyl]oxy] benzoic acid 1-methylethyl ester] | 1.0 |
| 25321-14-6 | Dinitrotoluene (mixed isomers) | 1.0 |
| 25321-22-6 | Dichlorobenzene (mixed isomers) | 0.1 |
| 25376-45-8 | Diaminotoluene (mixed isomers) | 0.1 |
| 26002-80-2 | Phenothrin [2,2-Dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylic acid (3-phenoxyphenyl)methyl ester] | 1.0 |
| 26471-62-5 | Toluene diisocyanate (mixed isomers) | 0.1 |
| 26628-22-8 | Sodium azide | 1.0 |
| 26644-46-2 | Triforine [N,N'-[1,4-Piperazinediylbis (2,2,2-trichloroethylidene)] bisformamide] | 1.0 |
| 27314-13-2 | Norflurazon. [4-Chloro-5-(methylamino)-2-[3-(trifluoromethyl)phenyl]-3(2H)-pyridazinone] | 1.0 |
| 28057-48-9 | d-trans-Allethrin [d-trans-Chrysanthemic acid of d-allethrone] | 1.0 |
| 28249-77-6 | Thiobencarb [Carbamic acid, diethylthio-, S-(p-chlorobenzyl)ester] | 1.0 |
| 28407-37-6 | C.I. Direct Blue 218 | 1.0 |
| 29232-93-7 | Pirimiphos methyl [O-(2-(Diethylamino)-6-methyl-4-pyrimidinyl)-O,O-dimethyl phosphorothioate] | 1.0 |
| 30560-19-1 | Acephate (Acetylphosphoramidothioic acid O,S-dimethyl ester) | 1.0 |
| 31218-83-4 | Propetamphos [3-[(Ethylamino)methoxy phosphinothioyl]oxy]-2-butenoic acid, 1-methylethyl ester] | 1.0 |



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| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 33089-61-1 | Amitraz | 1.0 |
| 34014-18-1 | Tebuthiuron [N-[5-(1,1-Dimethylethyl)-1,3,4-thiadiazol-2-yl]-N,N'-dimethylurea] | 1.0 |
| 34077-87-7 | Dichlorotrifluoroethane | 1.0 |
| 35367-38-5 | Diflubenzuron | 1.0 |
| 35400-43-2 | Sulprofos [O-Ethyl O-[4-(methylthio) phenyl]-phosphorodithioic acid S-propyl Ester] | 1.0 |
| 35554-44-0 | Imazalil [1-[2-(2,4-Dichlorophenyl)-2-(2-propenyloxy)ethyl]-1H-imidazole] | 1.0 |
| 35691-65-7 | 1-Bromo-1-(bromomethyl)-1,3-propanedicarbonitrile | 1.0 |
| 38727-55-8 | Diethatyl ethyl | 1.0 |
| 39156-41-7 | 2,4-Diaminoanisole sulfate | 0.1 |
| 39300-45-3 | Dinocap | 1.0 |
| 39515-41-8 | Fenpropathrin [2,2,3,3-Tetramethylcyclopropane carboxylic acid cyano(3-phenoxyphenyl)methyl ester] | 1.0 |
| 40487-42-1 | Pendimethalin [N-(1-Ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine] | 1.0 |
| 41198-08-7 | Profenofos [O-(4-Bromo-2-chlorophenyl)-O-ethyl-S-propyl-phosphorothioate] | 1.0 |
| 41766-75-0 | 3,3'-Dimethylbenzidine dihydrofluoride (o-Tolidine dihydrofluoride) | 0.1 |
| 42874-03-3 | Oxyfluorfen | 1.0 |
| 43121-43-3 | Triadimefon [1-(4-Chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone] | 1.0 |
| 50471-44-8 | Vinclozolin [3-(3,5-Dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione] | 1.0 |
| 51235-04-2 | Hexazinone | 1.0 |
| 51338-27-3 | Diclofop methyl [2-[4-(2,4-Dichlorophenoxy)-phenoxy]propanoic acid, methyl ester] | 1.0 |
| 51630-58-1 | Fenvalerate [4-Chloro-alpha-(1-methylethyl)-benzeneacetic acid cyano(3-phenoxyphenyl)methyl ester] | 1.0 |
| 52645-53-1 | Permethrin [3-(2,2-Dichloroethenyl)-2,2-dimethylcyclopropane carboxylic acid, (3-phenoxyphenyl)methyl ester] | 1.0 |
| 53404-19-6 | Bromacil, lithium salt [2,4(1H,3H)-Pyrimidinedione, 5-bromo-6-methyl-3-(1-methyl propyl), lithium salt] | 1.0 |
| 53404-37-8 | 2,4-D 2-ethyl-4-methylpentyl ester | 0.1 |
| 53404-60-7 | Dazomet, sodium salt [Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione, ion(1-), sodium] | 1.0 |
| 55290-64-7 | Dimethipin [2,3-Dihydro-5,6-dimethyl-1,4-dithiin 1,1,4,4-tetraoxide] | 1.0 |
| 55406-53-6 | 3-Iodo-2-propynyl butyl carbamate | 1.0 |
| 57213-69-1 | Triclopyr triethylammonium salt | 1.0 |
| 59669-26-0 | Thiodicarb | 1.0 |
| 60168-88-9 | Fenarimol [.alpha.-(2-Chlorophenyl)-.alpha.-4-chlorophenyl)-5-pyrimidine-methanol] | 1.0 |
| 60207-90-1 | Propiconazole [1-[2-(2,4-Dichlorophenyl)-4-propyl- 1,3-dioxolan-2-yl]-methyl-1H-1,2,4,-triazole] | 1.0 |
| 62476-59-9 | Acifluorfen, sodium salt [5-(2-Chloro-4-(trifluoromethyl)-phenoxy)-2-nitrobenzoic acid, sodium salt] | 1.0 |
| 63938-10-3 | Chlorotetrafluoroethane | 1.0 |
| 64902-72-3 | Chlorsulfuron [2-Chloro-N-[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino] carbonyl]benzenesulfonamide] | 1.0 |
| 64969-34-2 | 3,3'-Dichlorobenzidine sulfate | 0.1 |
| 66441-23-4 | Fenoxaprop ethyl [2-(4-((6-Chloro-2-benzoxa zolylen)-oxy)phenoxy)propanoic acid, ethyl ester] | 1.0 |
| 67485-29-4 | Hydramethylnon [Tetrahydro-5,5-dimethyl-2(1H)-pyrimidinone[3-[4-(trifluoromethyl)phenyl]-1-[2-[4-(trifluoromethyl)phenyl]ethenyl]-2-propenylidene]hydrazone] | 1.0 |

**C.I. means "Color Index"*

*Table II*

| CAS Number | Chemical Name | De Minimis Concentration |
|---|---|---|
| 68085-85-8 | Cyhalothrin [3-(2-Chloro-3,3,3-trifluoro-1-propenyl)-2,2-Dimethylcyclo-propanecarboxylic acid cyano(3-phenoxyphenyl) methyl ester] | 1.0 |
| 68359-37-5 | Cyfluthrin [3-(2,2-Dichloroethenyl)-2,2-dimethylcyclopropanecarboxylic acid, cyano(4-fluoro-3-phenoxyphenyl)methyl ester] | 1.0 |
| 69409-94-5 | Fluvalinate [N-[2-Chloro-4-(trifluoromethyl)-phenyl]-DL-valine(+)-cyano(3-phenoxyphenyl)methyl ester] | 1.0 |
| 69806-50-4 | Fluazifop butyl [2-[4-[[5-(Trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propanoic acid, butyl ester] | 1.0 |
| 71751-41-2 | Abamectin [Avermectin B1] | 1.0 |
| 72178-02-0 | Fomesafen [5-(2-Chloro-4-(trifluoromethyl)-phenoxy)-N-methylsulfonyl)-2-nitrobenzamide] | 1.0 |
| 72490-01-8 | Fenoxycarb [[2-(4-Phenoxyphenoxy)ethyl-] carbamic acid ethyl ester] | 1.0 |
| 74051-80-2 | Sethoxydim [2-[1-(Ethoxyimino)butyl]-5-[2-(ethylthio)propyl]-3-hydroxyl-2-cyclohexen-1-one] | 1.0 |
| 76578-14-8 | Quizalofop-ethyl [2-[4-[(6-Chloro-2-quinoxalinyl)oxy]phenoxy] propanoic acid ethyl ester] | 1.0 |
| 77501-63-4 | Lactofen [Benzoic acid, 5-[2-Chloro-4-(trifluoromethyl)phenoxy]-2-nitro-, 2-ethoxy-1-methyl-2-oxo ethyl ester] | 1.0 |
| 82657-04-3 | Bifenthrin | 1.0 |
| 88671-89-0 | Myclobutanil [.alpha.-Butyl-.alpha.-(4-chlorophenyl)-1H-1,2,4-triazole-1-propanenitrile] | 1.0 |
| 90454-18-5 | Dichloro-1,1,2-trifluoroethane | 1.0 |
| 90982-32-4 | Chlorimuron ethyl [Ethyl-2-[[[[(4-chloro-6-methoxyprimidin-2-yl)amino]-carbonyl]-amino]sulfonyl]benzoate] | 1.0 |
| 101200-48-0 | Tribenuron methyl [2-[[[[(4-Methoxy-6-methyl-1,3,5-triazin-2-yl)methylamino] carbonyl] amino]sulfonyl]benzoic acid-, methyl ester] | 1.0 |
| 111512-56-2 | 1,1-Dichloro-1,2,3,3,3-pentafluoropropane (HCFC-225eb) | 1.0 |
| 111984-09-9 | 3,3'-Dimethoxybenzidine hydrochloride (o-Dianisidine hydrochloride) | 0.1 |
| 127564-92-5 | Dichloropentafluoropropane | 1.0 |
| 128903-21-9 | 2,2-Dichloro-1,1,1,3,3-pentafluoropropane (HCFC-225aa) | 1.0 |
| 136013-79-1 | 1,3-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225ea) | 1.0 |



*"Not elsewhere classified" indicated by "n.e.c."

## c. Chemical Categories

Section 313 requires reporting on the EPCRA Section 313 chemical categories listed below, in addition to the specific EPCRA Section 313 chemicals listed above.

The metal compound categories listed below, unless otherwise specified, are defined as including any unique chemical substance that contains the named metal (i.e., antimony, nickel, etc.) as part of that chemical's structure.

EPCRA Section 313 chemical categories are subject to the 1 percent *de minimis* concentration unless the substance involved meets the definition of an OSHA carcinogen in which case the 0.1 percent *de minimis* concentration applies. The *de minimis* concentration for each category is provided in parentheses.

**N010** **Antimony Compounds (1.0)**
*Includes any unique chemical substance that contains antimony as part of that chemical's infrastructure.*

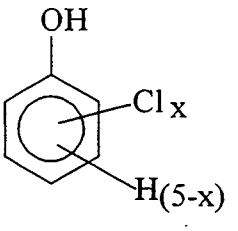
**N020** **Arsenic Compounds (inorganic compounds: 0.1; organic compounds: 1.0)**
*Includes any unique chemical substance that contains arsenic as part of that chemical's infrastructure.*

**N040** **Barium Compounds (1.0)**
*Includes any unique chemical substance that contains barium as part of that chemical's infrastructure. This category does not include: Barium sulfate CAS Number 7727-43-7*

**N050** **Beryllium Compounds (0.1)**
*Includes any unique chemical substance that contains beryllium as part of that chemical's infrastructure.*

**N078** **Cadmium Compounds (0.1)**
*Includes any unique chemical substance that contains cadmium as part of that chemical's infrastructure.*

**N084** **Chlorophenols (0.1)**




*Where x = 1 to 5*

**N090** **Chromium Compounds (chromium VI compounds: 0.1; chromium III compounds: 1.0)** *Includes any unique chemical substance that contains chromium as part of that chemical's infrastructure.*

**N096** **Cobalt Compounds (0.1)**
*Includes any unique chemical substance that contains cobalt as part of that chemical's infrastructure.*

**N100** **Copper Compounds (1.0)**
*Includes any unique chemical substance that contains copper as part of that chemical's infrastructure. This category does not include copper phthalocyanine compounds that are substituted with only hydrogen, and/or chlorine, and/or bromine.*

**N106** **Cyanide Compounds (1.0)**
*$X^+CN^-$ where X = $H^+$ or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$.*

**N120** **Diisocyanates (1.0)**
This category includes only those chemicals listed below.

| | |
|---|---|
| 38661-72-2 | 1,3-Bis(methylisocyanate) - cyclohexane |
| 10347-54-3 | 1,4-Bis(methylisocyanate)-cyclohexane |
| 2556-36-7 | 1,4-Cyclohexane diisocyanate |
| 134190-37-7 | Diethyldiisocyanatobenzene |
| 4128-73-8 | 4,4'-Diisocyanatodiphenyl ether |
| 75790-87-3 | 2,4'-Diisocyanatodiphenyl sulfide |

**C.I. means "Color Index"*

| | |
|---|---|
| 91-93-0 | 3,3'-Dimethoxybenzidine-4,4'-diisocyanate |
| 91-97-4 | 3,3'-Dimethyl-4,4'-diphenylene diisocyanate |
| 139-25-3 | 3,3'-Dimethyldiphenyl methane-4,4'-diisocyanate |
| 822-06-0 | Hexamethylene-1,6-diisocyanate |
| 4098-71-9 | Isophorone diisocyanate |
| 75790-84-0 | 4-Methyldiphenylmethane-3,4-diisocyanate |
| 5124-30-1 | 1,1-Methylene bis(4-isocyanatocyclohexane) |
| 101-68-8 | Methylene bis(phenylisocyanate) (MDI) |
| 3173-72-6 | 1,5-Naphthalene diisocyanate |
| 123-61-5 | 1,3-Phenylene diisocyanate |
| 104-49-4 | 1,4-Phenylene diisocyanate |
| 9016-87-9 | Polymeric diphenylmethane diisocyanate |
| 16938-22-0 | 2,2,4-Trimethylhexamethyl-ene diisocyanate |
| 15646-96-5 | 2,4,4-Trimethylhexa-methylene diisocyanate |

**N171** **Ethylenebisdithiocarbamic acid, salts and esters (EBDCs) (1.0)**
*Includes any unique chemical substance that contains an EBDC or an EBDC salt as part of that chemical's infrastructure.*

**N230** **Certain Glycol Ethers (1.0)**

$R\text{-}(OCH_2CH_2)_n\text{-}OR'$
Where n = 1, 2, or 3
R = alkyl C7 or less; or
R = phenyl or alkyl substituted phenyl;
R' = H, or alkyl C7 or less; or
OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate.

**N420** **Lead Compounds (inorganic compounds: 0.1; organic compounds 1.0)**
*Includes any unique chemical substance that contains lead as part of that chemical's infrastructure.*

**N450** **Manganese Compounds (1.0)**
*Includes any unique chemical substance that contains manganese as part of that chemical's infrastructure.*

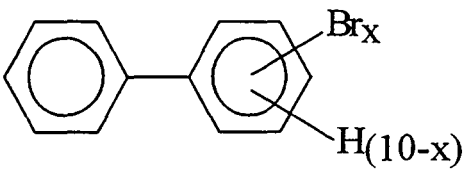
**N458** **Mercury Compounds (1.0)**
*Includes any unique chemical substance that contains mercury as part of that chemical's infrastructure.*

**N495** **Nickel Compounds (0.1)**
*Includes any unique chemical substance that contains nickel as part of that chemical's infrastructure.*

**N503** **Nicotine and salts (1.0)**
*Includes any unique chemical substance that contains nicotine or a nicotine salt as part of that chemical's infrastructure.*

**N511** **Nitrate compounds (water dissociable; reportable only when in aqueous solution) (1.0)**

**N575** **Polybrominated Biphenyls (PBBs) (0.1)**




*Where x = 1 to 10*

**N583** **Polychlorinated alkanes ($C_{10}$ to $C_{13}$) (1.0, except for those members of the category that have an average chain length of 12 carbons and contain an average chlorine content of 60 percent by weight which are subject to the 0.1 percent *de minimis*)**

$C_xH_{2x+2-y}Cl_y$
where x = 10 to 13;
y = 3 to 12; and
the average chlorine content ranges from 40 - 70% with the limiting molecular formulas $C_{10}H_{19}Cl_3$ and $C_{13}H_{16}Cl_{12}$

**N590** **Polycyclic aromatic compounds (PACs) (0.1 except for benzo(a)phenanthrene and dibenzo(a,e)fluoranthene that are subject to the 1.0 percent *de minimis*)**
This category includes only those chemicals listed below.



*"Not elsewhere classified" indicated by "n.e.c."

| | |
|---|---|
| 56-55-3 | Benz(a)anthracene |
| 205-99-2 | Benzo(b)fluoranthene |
| 205-82-3 | Benzo(j)fluoranthene |
| 207-08-9 | Benzo(k)fluoranthene |
| 189-55-9 | Benzo(rst)pentaphene |
| 218-01-9 | Benzo(a)phenanthrene |
| 50-32-8 | Benzo(a)pyrene |
| 226-36-8 | Dibenz(a,h)acridine |
| 224-42-0 | Dibenz(a,j)acridine |
| 53-70-3 | Dibenzo(a,h)anthracene |
| 194-59-2 | 7H-Dibenzo(c,g)carbazole |
| 5385-75-1 | Dibenzo(a,e)fluoranthene |
| 192-65-4 | Dibenzo(a,e)pyrene |
| 189-64-0 | Dibenzo(a,h)pyrene |
| 191-30-0 | Dibenzo(a,l)pyrene |
| 57-97-6 | 7,12-Dimethylbenz(a)-anthracene |
| 193-39-5 | Indeno[1,2,3-cd]pyrene |
| 3697-24-3 | 5-Methylchrysene |
| 5522-43-0 | 1-Nitropyrene |

**N725 Selenium Compouds (1.0)**
*Includes any unique chemical substance that contains selenium as part of that chemical's infrastructure.*

**N740 Silver Compounds (1.0)**
*Includes any unique chemical substance that contains silver as part of that chemical's infrastructure.*

**N746 Strychnine and salts (1.0)**
*Includes any unique chemical substance that contains strychnine or a strychnine salt as part of that chemical's infrastructure.*

**N760 Thallium Compounds (1.0)**
*Includes any unique chemical substance that contains thallium as part of that chemical's infrastructure.*

**N874 Warfarin and salts (1.0)**
*Includes any unique chemical substance that contains warfarin or a warfarin salt as part of that chemical's infrastructure.*

**N982 Zinc Compounds (1.0)**
*Includes any unique chemical substance that contains zinc as part of that chemical's infrastructure.*

**C.I. means "Color Index"*

# Table III. State Abbreviations

| | | | | | |
|---|---|---|---|---|---|
| Alabama | AL | Kentucky | KY | Commonwealth of Northern Marianas Islands | MP |
| Alaska | AK | Louisiana | LA | | |
| American Samoa | AS | Maine | ME | Ohio | OH |
| Arizona | AZ | Marshall Islands | MH | Oklahoma | OK |
| Arkansas | AR | Maryland | MD | Oregon | OR |
| California | CA | Massachusetts | MA | Pennsylvania | PA |
| Colorado | CO | Michigan | MI | Puerto Rico | PR |
| Connecticut | CT | Minnesota | MN | Rhode Island | RI |
| Delaware | DE | Mississippi | MS | South Carolina | SC |
| District of Columbia | DC | Missouri | MO | South Dakota | SD |
| Florida | FL | Montana | MT | Tennessee | TN |
| Georgia | GA | Nebraska | NE | Texas | TX |
| Guam | GU | Nevada | NV | Utah | UT |
| Hawaii | HI | New Hampshire | NH | Vermont | VT |
| Idaho | ID | New Jersey | NJ | Virginia | VA |
| Illinois | IL | New Mexico | NM | Virgin Islands | VI |
| Indiana | IN | New York | NY | Washington | WA |
| Iowa | IA | North Carolina | NC | West Virginia | WV |
| Kansas | KS | North Dakota | ND | Wisconsin | WI |
| | | | | Wyoming | WY |

# Appendix A. Federal Facility Reporting Information

## Special Instructions for TRI Federal Facility Reporting

### Why Do Federal Facilities Need to Report?

Executive Order 12856, Pollution Prevention and Right-to-Know Reporting, requires federal agencies to comply with the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and the Pollution Prevention Act of 1990 (PPA). By Executive Order, federal facilities must report Toxics Release Inventory (TRI) data, pursuant to EPCRA Section 313 and PPA Section 6607 to EPA beginning with calendar year 1994 data. TRI submissions are due to EPA on July 1 of the year following each reporting (calendar) year. Reporting by the federal facility however does not alter the reporting obligation of on-site contractors. The "Government Owned Contractor Operated" (GOCO) facilities must continue to report TRI data if they are subject to EPCRA section 313.

### Identifying Federal Facility Reports

Federal facility reports are identified as federal by several indicators on the form. The facility name and parent company name are critical indicators and must be reported as described below. Another critical indicator is the federal facility report box. Federal facilities only should check this box (Form R page 2, block 4.2c) to indicate that the report is from a federal agency for a federal facility. Federal facilities should also complete the partial or complete facility blocks (Form R page 2, block 4.2a and 4.2b) as appropriate. If you are a federal facility reporting for the first time, write "new" in the TRI Facility ID (TRIFID) box, even if a contractor has reported for your facility in the past. The contractor will retain the original TRIFID. You will be assigned a new TRIFID the first time you report.

### The "Double Counting" Problem

As structured, the law and the executive order require both regulated industries and the federal government to report TRI data, sometimes for the same site. In order to prevent duplicate data in the TRI database, which could result in "double counting" data for some chemicals and locations, EPA must be able to identify and distinguish the "Government Owned Contractor Operated" (GOCO) reports submitted by the federal contractor from the federal reports which contain data for the same site. To accomplish this, federal facility reports must be accompanied by either 1) exact copies (paper or electronic) of all contractor TRI reports included in the totals reported by the federal facility, or 2) a cover letter which includes a list of the facility contractors which submit TRI reports to EPA, identifying each contractor by name, TRI technical contact, and TRI facility name and address.

### Magnetic Media Reporting

EPA encourages all federal facilities and GOCO facilities to report using either EPA's Magnetic Media reporting software, or one of the commercially available packages. If the GOCO also submits its reports on magnetic media to EPA and to the federal facility, the federal facility may submit magnetic media copies of their GOCO TRI reports to EPA. Magnetic media reports must be accompanied by a cover letter which includes:

- ❒ Required Form R certification statement;
- ❒ List of the chemicals reported on the federal facility's disk; and
- ❒ List, identifying the contractor(s) by name and and by TRIFID number if they have an assigned TRIFID number, and the chemicals they reported (which are on the contractors' attachment disk(s))

### How to Report Your Facility Name

Facility name is a critical data element. It is used by EPA to create the TRI facility ID number, which is a unique number designed to identify a facility site. The facility name and TRIFID number are used by all TRI data users to link data from a single site across multiple reporting years. Each federal facility will be assigned a new TRIFID number when the federal report is entered into the Toxics Release Inventory system for the first time. This TRIFID number, generated when the first report is entered into the Toxics Release Inventory System, will be included in future reporting packages sent to federal facilities, and should be used by federal facilities in all future reports.

Federal facilities should report their facility name on page 1 of the Form Rs (Section 4.1), as shown in the following example:

U.S. DOE Savannah River Site

It is very important that the agency name appear first, followed by the specific plant or site name.

Federal contractors at GOCO facilities should report their names as shown in the following example:

U.S. DOE Savannah River Site — Westinghouse Operations.

## How to Report Your Standard Industrial Classification (SIC) Code

Federal facilities should report the SIC code which most closely represents the activities taking place at the site. Additional guidance on determining your SIC code is provided in the Forms and Instructions booklet. The table on the next page contains Public Administration SIC codes 91-97 covering executive, legislative, judicial, administrative and regulatory activities of the Federal government. Government-owned and operated business establishments are classified in major SIC groups 01-89 according to the activity in which they are engaged. For example, a Veterans Hospital would be classified in Group 806 — Hospitals.

## How to Report Your "Parent Company" Name

Federal facilities should report their parent company name on page 2 of the Form Rs (Section 5.1) by reporting their complete Department or Agency name, as shown in the following example:

U.S. Department of Energy

Block 5.2, Parent Company's Dun & Bradstreet Number, should be marked NA.

Federal contractors at GOCO should not report a federal department or agency name as their parent company. A federal name in the parent company name field will classify the report as federal, and the GOCO may be identified as a non-reporter.

## How to Revise Your Data After It Has Been Submitted

Any TRI Form R submitter may voluntarily revise their submission if they find errors after their reports have been sent to EPA. If a federal facility receives a copy of a revision from a GOCO, the facility should revise the federal report, and submit the revised report to EPA and the appropriate state along with an exact copy of the GOCO's revision. If the revision is to a hardcopy report, the facility should photocopy the original form, use a blue or black pen to mark out the incorrect value and write in the corrected value. The revised report should be submitted to EPA, with an "X" in the revision block on page 1 of the Form R. If the revision is to a diskette, a new diskette should be submitted, containing the data only for the revised submission, not all the chemicals originally reported. The cover letter must indicate that the submission is a revision.

## National Security Data

DO NOT SUBMIT NATIONAL SECURITY DATA TO THE EPCRA REPORTING CENTER. National security data are handled through a separate process. Facilities should consult the Guidance for Implementing Executive Order 12856 documents or call the EPCRA Hotline if their Form R submission involves a national security data claim.

## Who Should Sign Federal Form R Reports?

Federal Form R reports must be signed by the senior federal employee on-site. If no federal employee is on-site, federal Form R reports must be signed by the senior federal employee with management responsibility for the site. Federal Form R reports must be signed by a federal employee. Contractor employee signatures are not considered valid on federal reports.

## More Help is Available!

Federal facilities may call EPA's EPCRA Hotline at 1 (800) 424-9346, or (703) 412-9877 to ask specific questions concerning how to submit their Form R reports.

# Standard Industrial Classification Codes 91-97

## Division J — Public Administration

### 91 Executive, Legislative, and General Government, Except Finance

9111 Executive Offices
9121 Legislative Bodies
9131 Executive and Legislative Offices Combined
9199 General Government, Not Elsewhere Classified

### 92 Justice, Public Order, and Safety

9211 Courts
9221 Police Protection
9222 Legal Counsel and Prosecution
9223 Correctional Institutions
9224 Fire Protection
9229 Public Order and Safety, Not Elsewhere Classified

### 93 Public Finance, Taxation, and Monetary Policy

9311 Public Finance, Taxation, and Monetary Policy

### 94 Administration of Human Resource Programs

9411 Administration of Educational Programs
9431 Administration of Public Health Programs
9441 Administration of Social, Human Resource and Income Maintenance Programs
9451 Administration of Veterans' Affairs, Except Health and Insurance

### 95 Administration of Environmental Quality and Housing Programs

9511 Air and Water Resource and Solid Waste Management
9512 Land, Mineral, Wildlife, and Forest Conservation
9531 Administration of Housing Programs
9532 Administration of Urban Planning and Community and Rural Development

### 96 Administration of Economic Programs

9611 Administration of General Economic Programs
9621 Regulation and Administration of Transportation Programs
9631 Regulation and Administration of Communications, Electric, Gas, and Other Utilities
9641 Regulation of Agricultural Marketing and Commodities
9651 Regulation, Licensing, and Inspection of Miscellaneous Commercial Sectors
9661 Space Research and Technology

### 97 National Security and International Affairs

9711 National Security
9721 International Affairs

# Appendix B. Reporting Codes For EPA Form R

## Form R Part II

### Section 1.1. CAS Number

**EPCRA Section 313 Chemical Category Codes**

| | |
|---|---|
| N010 | Antimony compounds |
| N020 | Arsenic compounds |
| N040 | Barium compounds |
| N050 | Beryllium compounds |
| N078 | Cadmium compounds |
| N084 | Chlorophenols |
| N090 | Chromium compounds |
| N096 | Cobalt compounds |
| N100 | Copper compounds |
| N106 | Cyanide compounds |
| N120 | Diisocyanates |
| N171 | Ethylenebisdithiocarbamic acid, salts and esters (EBDCs) |
| N230 | Certain glycol ethers |
| N420 | Lead compounds |
| N450 | Manganese compounds |
| N458 | Mercury compounds |
| N495 | Nickel compounds |
| N503 | Nicotine and salts |
| N511 | Nitrate compounds |
| N575 | Polybrominated biphenyls (PBBs) |
| N583 | Polychlorinated alkanes |
| N590 | Polycyclic aromatic compounds |
| N725 | Selenium compounds |
| N740 | Silver compounds |
| N746 | Strychnine and salts |
| N760 | Thallium compounds |
| N874 | Warfarin and salts |
| N982 | Zinc compounds |

### Section 4. Maximum Amount of the Toxic Chemical On-Site at Any Time During the Calendar Year

**Weight Range in Pounds**

| Range Code | From... | To.... |
|---|---|---|
| 01 | 0 | 99 |
| 02 | 100 | 999 |
| 03 | 1,000 | 9,999 |
| 04 | 10,000 | 99,999 |
| 05 | 100,000 | 999,999 |
| 06 | 1,000,000 | 9,999,999 |
| 07 | 10,000,000 | 49,999,999 |
| 08 | 50,000,000 | 99,999,999 |
| 09 | 100,000,000 | 499,999,999 |
| 10 | 500,000,000 | 999,999,999 |
| 11 | 1 billion | more than 1 billion |

### Section 5. Quantity of the Toxic Chemical Entering Each Environmental Medium On-site and
### Section 6. Transfers of the Toxic Chemical in Wastes to Off-Site Locations

**Total Release or Transfer**

| Code | Range (lbs) |
|---|---|
| A | 1–10 |
| B | 11–499 |
| C | 500–999 |

**Basis of Estimate**

M: Estimate is based on monitoring data or measurements for the EPCRA Section 313 chemical as transferred to an off-site facility.

C: Estimate is based on mass balance calculations, such as calculation of the amount of the EPCRA Section 313 chemical in waste streams entering and leaving process equipment.

E: Estimate is based on published emission factors, such as those relating release quantity to through-put or equipment type (e.g., air emission factors).

O: Estimate is based on other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgment. This would include applying an estimated removal efficiency to a treatment, even if the composition of the waste before treatment was fully identified through monitoring data.

## Section 6. Transfers of the Toxic Chemical in Wastes to Off-Site Locations

**Type of Waste Disposal/Treatment/Energy Recovery/Recycling**

| | |
|---|---|
| M10 | Storage Only |
| M20 | Solvents/Organics Recovery |
| M24 | Metals Recovery |
| M26 | Other Reuse or Recovery |
| M28 | Acid Regeneration |
| M40 | Solidification/Stabilization |
| M41 | Solidification/Stabilization-Metals and Metal Category Compounds only |
| M50 | Incineration/Thermal Treatment |
| M54 | Incineration/Insignificant Fuel Value |
| M56 | Energy Recovery |
| M61 | Wastewater Treatment (Excluding POTW) |
| M62 | Wastewater Treatment (Excluding POTW) – Metals and Metal Category Compounds only |
| M69 | Other Waste Treatment |
| M71 | Underground Injection |
| M72 | Landfill/Disposal Surface Impoundment |
| M73 | Land Treatment |
| M79 | Other Land Disposal |
| M90 | Other Off-Site Management |
| M92 | Transfer to Waste Broker – Energy Recovery |
| M93 | Transfer to Waste Broker – Recycling |
| M94 | Transfer to Waste Broker – Disposal |
| M95 | Transfer to Waste Broker – Waste Treatment |
| M99 | Unknown |

## Federal Information Processing Standards (FIPS) Codes for Transfers of the EPCRA Section 313 Chemical to Other Countries

This is an abridged list of countries to which a U.S. facility might ship an EPCRA Section 313 chemical. For a complete listing of FIPS codes, consult your local library. To obtain a FIPS code for a country not listed, contact the EPCRA Hotline.

| Country | Code |
|---|---|
| Argentina | AR |
| Belgium | BE |
| Bolivia | BL |
| Brazil | BR |
| Canada | CA |
| Chile | CI |
| Columbia | CO |
| Costa Rica | CS |
| Cuba | CU |
| Ecuador | EC |
| El Salvador | ES |
| France | FR |
| Guatemala | GT |
| Honduras | HO |
| Ireland | EI |
| Italy | IT |
| Mexico | MX |
| Nicaragua | NU |
| Panama | PM |
| Paraguay | PA |
| Peru | PE |
| Portugal | PO |
| Spain | SP |
| Switzerland | SZ |
| United Kingdom | UK |
| Uruguay | UY |
| Venezuela | VE |

## Section 7A. On-Site Waste Treatment Methods and Efficiency

**General Waste Stream**

| | |
|---|---|
| A | Gaseous (gases, vapors, airborne particulates) |
| W | Wastewater (aqueous waste) |
| L | Liquid waste streams (non-aqueous waste) |
| S | Solid waste streams (including sludges and slurries) |

### Waste Treatment Methods

**Air Emissions Treatment**

| | |
|---|---|
| A01 | Flare |
| A02 | Condenser |
| A03 | Scrubber |
| A04 | Absorber |
| A05 | Electrostatic Precipitator |
| A06 | Mechanical Separation |
| A07 | Other Air Emission Treatment |

**Biological Treatment**

| | |
|---|---|
| B11 | Biological Treatment – Aerobic |
| B21 | Biological Treatment – Anaerobic |
| B31 | Biological Treatment – Facultative |

B99 Biological Treatment – Other

**Chemical Treatment**

C01 Chemical Precipitation – Lime or Sodium Hydroxide
C02 Chemical Precipitation – Sulfide
C09 Chemical Precipitation – Other
C11 Neutralization
C21 Chromium Reduction
C31 Complexed Metals Treatment (other than pH Adjustment)
C41 Cyanide Oxidation – Alkaline Chlorination
C42 Cyanide Oxidation – Electrochemical
C43 Cyanide Oxidation – Other
C44 General Oxidation (Including Disinfection) – Chlorination
C45 General Oxidation (Including Disinfection) – Ozonation
C46 General Oxidation (Including Disinfection) – Other
C99 Other Chemical Treatment

**Incineration/Thermal Treatment**

F01 Liquid Injection
F11 Rotary Kiln with Liquid Injection Unit
F19 Other Rotary Kiln
F31 Two Stage
F41 Fixed Hearth
F42 Multiple Hearth
F51 Fluidized Bed
F61 Infra-Red
F71 Fume/Vapor
F81 Pyrolytic Destructor
F82 Wet Air Oxidation
F83 Thermal Drying/Dewatering
F99 Other Incineration/Thermal Treatment

**Physical Treatment**

P01 Equalization
P09 Other Blending
P11 Settling/Clarification
P12 Filtration
P13 Sludge Dewatering (Non-thermal)
P14 Air Flotation
P15 Oil Skimming
P16 Emulsion Breaking – Thermal
P17 Emulsion Breaking – Chemical
P18 Emulsion Breaking – Other
P19 Other Liquid Phase Separation
P21 Adsorption – Carbon
P22 Adsorption – Ion Exchange (Other than for recovery/reuse)
P23 Adsorption – Resin
P29 Adsorption – Other
P31 Reverse Osmosis (Other than for recovery/reuse)
P41 Stripping – Air
P42 Stripping – Steam
P49 Stripping – Other
P51 Acid Leaching (Other than for recovery/reuse)
P61 Solvent Extraction (Other than for recovery/reuse)
P99 Other Physical Treatment

**Solidification/Stabilization**

G01 Cement Processes (Including Silicates)
G09 Other Pozzolonic Processes (Including Silicates)
G11 Asphaltic Processes
G21 Thermoplastic Techniques
G99 Other Solidification Processes

**Range of Influent Concentration**

1 = Greater than 10,000 parts per million (1 percent)
2 = 100 parts per million (0.01 percent) to 10,000 parts per million (1 percent)
3 = 1 part per million (0.0001 percent) to 100 parts per million (0.01 percent)
4 = 1 part per billion to 1 part per million
5 = Less than 1 part per billion

[**Note**: Parts per million (ppm) is milligrams/ kilogram (mass/mass) for solids and liquids; cubic centimeters/ cubic meter (volume/volume) for gases; milligrams/liter for solutions or dispersions of the chemical in water; and milligrams of chemical/kilogram of air for particulates in air. If you have particulate concentrations (at standard temperature and pressure) as grains/cubic foot of air, multiply by 1766.6 to convert to parts per million; if in milligrams/cubic meters, multiply by 0.773 to obtain parts per million. Factors are for standard conditions of 0°C (32°F) and 760 mmHg atmospheric pressure.]

## Section 7B. On-Site Energy Recovery Processes

U01 Industrial Kiln
U02 Industrial Furnace
U03 Industrial Boiler

U09 Other Energy Recovery Methods

## Section 7C. On-Site Recycling Processes

R11 Solvents/Organics Recovery – Batch Still Distillation
R12 Solvents/Organics Recovery – Thin-Film Evaporation
R13 Solvents/Organics Recovery – Fractionation
R14 Solvents/Organics Recovery – Solvent Extraction
R19 Solvents/Organics Recovery – Other
R21 Metals Recovery – Electrolytic
R22 Metals Recovery – Ion Exchange
R23 Metals Recovery – Acid Leaching
R24 Metals Recovery – Reverse Osmosis
R26 Metals Recovery – Solvent Extraction
R27 Metals Recovery – High Temperature
R28 Metals Recovery – Retorting
R29 Metals Recovery – Secondary Smelting
R30 Metals Recovery – Other
R40 Acid Regeneration
R99 Other Reuse or Recovery

## Section 8.10. Source Reduction Activity Codes

### Good Operating Practices

W13 Improved maintenance scheduling, record keeping, or procedures
W14 Changed production schedule to minimize equipment and feedstock changeovers
W19 Other changes in operating practices

### Inventory Control

W21 Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life
W22 Began to test outdated material – continue to use if still effective
W23 Eliminated shelf-life requirements for stable materials
W24 Instituted better labeling procedures
W25 Instituted clearinghouse to exchange materials that would otherwise be discarded
W29 Other changes in inventory control

### Spill and Leak Prevention

W31 Improved storage or stacking procedures
W32 Improved procedures for loading, unloading, and transfer operations
W33 Installed overflow alarms or automatic shut-off valves
W35 Installed vapor recovery systems
W36 Implemented inspection or monitoring program of potential spill or leak sources
W39 Other changes made in spill and leak prevention

### Raw Material Modifications

W41 Increased purity of raw materials
W42 Substituted raw materials
W49 Other raw material modifications made

### Process Modifications

W51 Instituted recirculation within a process
W52 Modified equipment, layout, or piping
W53 Use of a different process catalyst
W54 Instituted better controls on operating bulk containers to minimize discarding of empty containers
W55 Changed from small volume containers to bulk containers to minimize discarding of empty containers
W58 Other process modifications

### Cleaning and Degreasing

W59 Modified stripping/cleaning equipment
W60 Changed to mechanical stripping/cleaning devices (from solvents or other materials)
W61 Changed to aqueous cleaners (from solvents or other materials)
W63 Modified containment procedures for cleaning units
W64 Improved draining procedures
W65 Redesigned parts racks to reduce drag out
W66 Modified or installed rinse systems
W67 Improved rinse equipment design
W68 Improved rinse equipment operation
W71 Other cleaning and degreasing modifications

### Surface Preparation and Finishing

W72 Modified spray systems or equipment
W73 Substituted coating materials used
W74 Improved application techniques
W75 Changed from spray to other system
W78 Other surface preparation and finishing modifications

**Product Modifications**

W81 Changed product specifications
W82 Modified design or composition of products
W83 Modified packaging
W89 Other product modifications

## Section 8.10. Methods Used to Identify Source Reduction Activities

For each source reduction activity, enter up to three of the following codes that correspond to the method(s) which contributed most to the decision to implement that activity.

T01 Internal Pollution Prevention Opportunity Audit(s)
T02 External Pollution Prevention Opportunity Audit(s)
T03 Materials Balance Audits
T04 Participative Team Management
T05 Employee Recommendation (independent of a formal company program)
T06 Employee Recommendation (under a formal company program)
T07 State Government Technical Assistance Program
T08 Federal Government Technical Assistance Program
T09 Trade Association/Industry Technical Assistance Program
T10 Vendor Assistance
T11 Other

# Appendix C. Common Errors in Completing Form R Reports and Making Data Available

The common errors in complying with section 313 and completing Form R occur in the following: threshold determination, completing the Form R, estimating release and other waste management amounts, and transcription of data submitted as they are entered into the database.

To correct errors made in the transcription of data received, EPA designed the data entry process to include a number of automated data quality checks. These types of checks are useful to correct such things as facility name, or county spelling, but these checks are less effective in detecting whether values were entered correctly. Previously, EPA sent back to each reporting facility a release value report (RVR) that included amounts entered in sections 5 and 6 of the Form R. This allowed facilities an opportunity to see a large portion of their report and make corrections before the database was updated and released to the public. The RVR was replaced with a Facility Data Profile beginning with the 1998 reporting year. A facility data profile is a printout of the data EPA has entered into its database for each facility. It is mailed to each reporting facility to check for errors before EPA begins its analysis of the data and make it available to the public. It also flags possible errors in reporting.

Some errors encountered in reports submitted do not allow the report to be processed, while others may not prevent processing but may affect the data and any analysis using the data if not corrected. Errors most frequently received pertain to facility identification/location, chemical identification, missing pages, invalid Form Rs, magnetic disk processing, or more than one chemical being reported per Form R. In order to notify reporting facilities of these errors and provide them instructions for making corrections, EPA has in the past issued a number of notice types. These included NOTEs (Notice of Technical Error), NOSEs (Notice of Significant Error), NDC (Notice of Data Change), and where there was a compliance issue, a notice of non-compliance (NON). Prior to RY1998 these were generally issued separately. Beginning with the 1998 reporting year, these reporting notices were consolidated and issued to the reporting facility in their Facility Data Profile, except for the NONs which are issued by EPA's Office of Enforcement and Compliance Assurance.

A listing of the types of errors that generate invalid entries in the facility data profile are listed in this section beginning on page C-8. (Please note: two new validation checks for use of proper waste management code were added during the review of the 1998 data. These codes appear under "Notices of Technical Errors (NOTEs)" as 339 and 340 on page C-11.)

Reporting errors may also be identified through inspections. EPA may initiate an inspection to review the activities at a facility involving reportable EPCRA Section 313 chemicals at any point. If, as a result of an inspection, EPA determines that the facility should have submitted a Form R, then EPA may take enforcement action against the facility which may involve the subsequent assessment of fines. Errors that result in non-reporting violations include incorrect threshold determination, misapplying exemptions, and overlooking activities involving a reportable chemical.

Facilities should keep copies of submitted Form R reports and all documentation used to complete their reports. This documentation should include calculations for threshold determinations, the basis of exemptions applied, and the estimation techniques and data used for all quantities reported on the Form R.

## General Considerations

- **Incomplete Forms.** A complete Form R report for a single EPCRA Section 313 chemical or single EPCRA Section 313 chemical category consists of five pages stapled together. EPA cannot enter into the database data from a package that contains only one page 1, but several page 2s, 3s, 4s, and/or 5s. Such forms are considered incomplete submissions.

## Threshold Determinations

- **Calculating threshold determinations.** Annual quantities manufactured, processed, or otherwise used for Section 313 chemicals must be calculated, not surmised. The assumption that thresholds are exceeded commonly leads to error.
- **Misclassification of EPCRA Section 313 chemical activity.** Failure to correctly classify an EPCRA Section 313 chemical activity may result in an

incorrect threshold determination. As a result, a Form R may not be submitted when one is required.

- ❑ **EPCRA Section 313 chemical activity overlooked.** Many facilities believe that because the section 313 reporting requirement pertains to manufacturers, only the use of EPCRA Section 313 chemicals in manufacturing processes must be examined. *Any activity* involving the manufacture, process, or otherwise use of an EPCRA Section 313 chemical or chemical category must be included in threshold determinations. Commonly overlooked activities include importation of chemicals, generation of waste byproducts, processing of naturally occurring metals and metal category compounds in ore, manufacturing and processing of reaction intermediates, the use of chemicals for cleaning of equipment, and the generation of byproducts during combustion of coal and/or oil. Facilities should take a systematic approach to identify all chemicals and mixtures used in production and non-production capacities, including catalysts, well treatment chemicals, and wastewater treatment chemicals.

- ❑ **Reporting EPCRA Section 313 chemicals in mixtures and other trade name products.** EPCRA Section 313 chemicals contained in mixtures (including ores and stainless steel alloys) and other trade name products must be factored into threshold determinations and release and other waste management determinations, provided that the *de minimis* exemption cannot be taken. When the EPCRA Section 313 chemical being reported is a component in a mixture or other trade name product, report only the weight of the EPCRA Section 313 chemical in the mixture. Refer to Section B.4b of this document to calculate the weight of an EPCRA Section 313 chemical in a mixture or other trade name product.

- ❑ **Reporting coincidental manufacturing.** Coincidental manufacturing must not be overlooked. If coal and/or fuel oil and other raw materials that contain EPCRA Section 313 chemicals are used in boilers/burners, there is a potential for the coincidental manufacture of EPCRA Section 313 chemicals such as sulfuric acid (acid aerosols), hydrochloric acid (acid aerosols), hydrogen fluoride, and metal category compounds. Additionally, manufacturing of EPCRA Section 313 chemicals during waste treatment is commonly overlooked. For example, the treatment of nitric acid may result in the coincidental manufacturing of a reportable chemical (nitrate compounds).

## Container Residue

- ❑ **Overlooking container residue.** Container residue must not be disregarded in release and other waste management calculations. Even a "RCRA empty" drum is expected to contain a residue and it must be considered for TRI reporting. Additionally, on-site drum rinsing and disposal of the rinsate will result in a release and other waste management activity. Refer to "Estimating Releases and Waste Treatment Efficiencies for Toxic Chemical Reporting Forms."

# Part I. Facility Identification Information

## Section 1. Reporting Year

- ❑ **Invalid Forms.** The correct version of the form for the reporting year in question must be used. Forms provided for reporting years 1987-1990 must not be used to report data for reporting years 1991-1995. Form Rs provided for reporting years 1987-1995 must not be used to report data for years 1996 and later.

## Section 2. Trade Secret Information

- ❑ **Incorrect completion of trade secret information.** The responses to trade secret questions in Part I Section 2 and Part II Section 1.3 of Form R/Form A must be consistent. If trade secrecy is indicated, a sanitized Form R/Form A and two trade secret substantiations (one sanitized) must be submitted in the same package as the trade secret Form R/Form A. Part II Section 1.3 should be blank if no trade secret claim is being made.

## Section 3. Certification

- ❑ **Missing certification signature.** An original certification signature must appear on page 1 of every Form R/Form A submitted to EPA.

### Section 4. Facility Identification

- ❑ **Incorrect latitude and longitude coordinates.** Latitude and longitude coordinates are important data on the Form R/Form A. These coordinates must be determined using the correct map and correct measurement techniques and reported in degrees, minutes, and seconds. For additional guidance, see Appendix E of this document.

- ❑ **"Questionable" entries.** Incorrect entries may require corrections to be made by the facility. Questionable entries may include:

  - Missing or incorrect street address;
  - Missing or incorrect ZIP codes;
  - Missing County names;
  - Invalid SIC codes;
  - Missing or invalid Dun & Bradstreet numbers;
  - Missing or invalid RCRA, NPDES, or UIC numbers; and
  - Incomplete off-site and POTW information (e.g., missing city name)

If amounts are reported in units other than pounds (e.g., metric units) or with exponential numbers, EPA may require a revision of the Form R/Form A submitted.

## Part II. Chemical-Specific Information

### Section 1. Toxic Chemical Identity

- ❑ **Reporting chemical abstract service (CAS) numbers in Section 1.1.** Beginning with the 1991 reporting year, EPA has assigned alphanumeric category codes to the twenty chemical categories for the purposes of reporting the CAS number field in Section 1.1. When completing a Form R for a chemical category, the appropriate code for that category must be provided in Section 1.1. The CAS numbers are listed in Table II: "Section 313 Toxic Chemical List," and if needed, the category codes are listed in Appendix B: "Reporting Codes for EPA Form R." Category guidance documents are listed in the Chemical and Industry Guidance Documents section in this document.

- ❑ **Failure to check for synonyms.** Some reportable chemicals (especially glycol ethers and toluene diisocyanates) have many synonyms that do not readily imply they are in the category. For example, "benzene,1,3-diisocyanatomethyl" may not be readily recognized as "toluene diisocyanate (mixed isomers)."

- ❑ **Invalid chemical identification in Section 1.2.** The CAS number and the chemical name reported here must exactly match the listed official Section 313 CAS number and EPCRA Section 313 chemical name.

- ❑ **Failure to consider an EPCRA Section 313 chemical qualifier.** Only EPCRA Section 313 chemicals in the form specified in the qualifier require reporting under Section 313 and should be reported on Form R with the appropriate qualifier in parentheses. For example, isopropyl alcohol is listed on the EPCRA Section 313 chemical list with the qualifier "manufacturing- strong acid process, no supplier notification." Thus, the ONLY facilities that should report this EPCRA Section 313 chemical are those that manufacture isopropyl alcohol by the strong acid process.

- ❑ **Generic chemical name in Section 1.3.** A generic chemical name should only be provided if the Section 313 chemical identity is claimed as a trade secret.

### Section 2. Mixture Component Identity

- ❑ **Identifying chemicals used in mixtures.** Facilities must carefully review the most recent MSDS or supplier notification for every mixture brought on-site to identify all Section 313 chemicals used during a reporting year. Although some mixtures may not have MSDSs, the best readily available information should be used to determine the presence of EPCRA Section 313 chemicals in ores and alloys.

- ❑ **Mixture names in Section 2.1.** Mixture names are to be entered here only if the supplier is claiming the identity of the EPCRA Section 313 chemical a trade secret and that is the sole identification. Mixture names that include the name or CAS number of one or more EPCRA Section 313 chemicals are not valid uses of the mixture name field.

## Section 3. Activities and Uses of the Toxic Chemical at the Facility

❑ **Reporting EPCRA Section 313 chemical activity.** EPCRA Section 313 chemical activity is commonly overlooked or misclassified. *Any activity* involving the manufacture, process, or otherwise use of an EPCRA Section 313 chemical must be examined. For example, waste treatment operations otherwise use EPCRA Section 313 chemicals to treat waste streams and may coincidentally manufacture an additional EPCRA Section 313 chemical as a result of the treatment reaction. Such activity must be considered. Further, EPCRA Section 313 chemical activity must be correctly classified as either "manufactured," "processed," or "otherwise used."

**Section 3.1** "Manufacture" means to produce, prepare, compound, or import an EPCRA Section 313 chemical.

**Section 3.2** "Process" means the preparation of an EPCRA Section 313 chemical after its manufacture, which incorporates the EPCRA Section 313 chemical into the final product, for distribution in commerce.

**Section 3.3** "Otherwise use" encompasses any use of an EPCRA Section 313 chemical that does not fall under the terms "manufacture" or "process," and includes treatment for destruction, stabilization (without subsequent distribution in commerce), disposal, and other use of an EPCRA Section 313 chemical, including an EPCRA Section 313 chemical contained in a mixture or other trade name product. Otherwise use of an EPCRA Section 313 chemical does not include disposal, stabilization (without subsequent distribution in commerce), or treatment for destruction unless:

1. The EPCRA Section 313 chemical that was disposed, stabilized, or treated for destruction was received from off-site for the purposes of further waste management; or

2. The EPCRA Section 313 chemical that was disposed, stabilized, or treated for destruction was manufactured as a result of waste management activities on materials received from off-site for the purposes of further waste management activities.

For example, solvents in paint applied to a manufactured product are often misclassified as processed, instead of otherwise used. Because the solvents are not incorporated into the final product, the solvent is being otherwise used, not processed. Such situations must be interpreted accurately.

## Section 4. Maximum Amount of the Toxic Chemical On-site at Any Time During the Calendar Year

❑ **Maximum amount on-site left blank.** The appropriate code is required in this field.

## Section 5. Quantity of the Toxic Chemical Entering Each Environmental Medium On-site

❑ **Incorrectly reporting stack emissions.** Fugitive emissions from general indoor air must not be reported as stack emissions when released from a single building vent. Additionally, stack emissions from storage tanks, including loading, working, and breathing losses from tanks, must not be overlooked or reported as fugitive emissions.

❑ **Overlooking some releases to land.** Section 313 chemicals placed in stockpiles or in surface impoundments should be reported as a "release to land" even if no Section 313 chemicals leak from these sources. Quantities of Section 313 chemicals land-treated should be reported as a "release to land."

## Section 6. Transfers of the Toxic Chemical in Wastes to Off-site Locations

❑ **Reporting discharges to POTWs in Section 6.1.** When quantities of a listed mineral acid are neutralized to a pH of 6 or greater, the quantity reported as discharged to a POTW should be reported as zero. It is incorrect to enter "NA" (Not Applicable), in such a situation.

- ❑ **Reporting other off-site transfers in Section 6.2.** Any quantities reported in Sections 8.1, 8.3, 8.5, and 8.7 as sent off-site for disposal, treatment, energy recovery, or recycling, respectively, must also be reported in Section 6.2 along with the receiving location and appropriate off-site activity code.

## Section 7A. On-Site Waste Treatment Methods and Efficiency

- ❑ **Failure to report waste treatment methods in Section 7A.** Waste treatment methods used to treat waste streams containing EPCRA Section 313 chemicals, and the efficiencies of these methods, must be reported on Form R. Information must be entered for all waste streams, even if the waste treatment method does not affect the EPCRA Section 313 chemical. If no waste treatment is performed on waste streams containing the EPCRA Section 313 chemical, the box marked "Not Applicable" in Section 7A must be checked on Form R.

## Section 7B. On-Site Energy Recovery Processes

- ❑ **Incorrect reporting of waste treatment methods in Section 7A.** The type of waste stream, influent concentration, and waste treatment method for each waste stream are required to be reported on Form R using specific codes, along with the waste treatment efficiency expressed as percent removal. The waste treatment codes are listed in Appendix B: "Reporting Codes for EPA Form R," of the *Toxic Chemical Release Inventory Reporting Forms and Instructions.*

- ❑ **Reporting on-site energy recovery methods in Section 7B.** When a quantity is reported in Section 8.2 as combusted for energy recovery on-site, the type of energy recovery system used must be reported in Section 7B, and vice versa.

## Section 7C. On-Site Recycling Processes

- ❑ **Reporting on-site recycling methods in Section 7C.** When a quantity is reported in Section 8.4 as recycled on-site, the type of recovery method must be reported in Section 7C, and vice versa.

## Section 8. Source Reduction and Recycling Activities

*This section is mandatory. Under no circumstances should a reporting facility leave Section 8 entirely blank, even if the facility does not engage in source reduction or recycling activities.*

- ❑ Columns C and D, the future year projections for questions 8.1 through 8.7, must be completed. EPA expects a reasonable estimate for the future year projections. Zero can be used in columns C and D to indicate that the manufacture, process, or otherwise use of the chemical will be discontinued. In such cases, columns C and D for Section 8.1 through 8.7 must all contain zeroes.

- ❑ It is incorrect to use range codes to report quantities in Section 8. Range codes can be used only in Section 5 and Section 6 of Form R.

- ❑ It is incorrect to use the same codes from Section 4 for reporting the maximum amount of the reported EPCRA Section 313 chemical on-site to report quantities in Section 8.

- ❑ Quantities reported in Section 8.1 through Section 8.7 are mutually exclusive and additive. This means that quantities of the reported EPCRA Section 313 chemical must not be double-counted in Section 8.1 through Section 8.7.

- ❑ Some double-counting errors have been due to confusion over the differences in how on-site treatment of an EPCRA Section 313 chemical is reported in Section 7A as compared to Section 8. In Section 7A, information on the treatment of *waste streams* containing the EPCRA Section 313 chemical is reported, along with the percent efficiency in terms of destruction or removal of the EPCRA Section 313 chemical from each waste stream. In Section 8, only the quantity of the *EPCRA Section 313 chemical* actually destroyed through the treatment processes reported in Section 7A is reported in Section 8.6 to avoid double-counting within Sections 8.1 through 8.7.

- ❑ Quantities reported in Sections 8.1 through 8.7 must not be reported in Section 8.8 and vice versa.

- ❑ Any time a reported EPCRA Section 313 chemical is contained in a waste, and the waste is associated with routine production-related activities and is recycled, combusted for energy recovery, treated, disposed, or otherwise released either on- or off-site, that quantity of the EPCRA Section 313 chemical must be included in the quantities reported in Sections 8.1 through 8.7.

- ❑ **Reporting quantities in Section 8.1 "Quantity released."** Quantities of EPCRA Section 313 chemicals that are released (including disposed) on-site and reported in Section 5 of Form R must be reported in Section 8.1. Quantities of EPCRA Section 313 chemicals transferred off-site for the purposes of disposal reported in Section 6.2 must appear in Section 8.1 using the following codes:

  - ❑ M10 Storage Only;
  - ❑ M41 Solidification/Stabilization — Metals and Metal Category Compounds Only;
  - ❑ M62 Wastewater Treatment (excluding POTW) — Metals and Metal Category Compounds Only;
  - ❑ M71 Underground Injection;
  - ❑ M72 Landfill/Disposal Surface Impoundment;
  - ❑ M73 Land Treatment;
  - ❑ M79 Other Land Disposal;
  - ❑ M90 Other Off-Site Management; and
  - ❑ M94 Transfer to Waste Broker—Disposal
  - ❑ M99 Unknown.

  Metals and metal category compounds transferred off-site to POTWs in Section 6.1 must appear in Section 8.1. To report correctly in Section 8.1, a facility must include quantities that are released to the environment, either on-site or off-site, excluding releases due to catastrophic events or non-production related activities.

  §8.1 = §5 + §6.1 (metals and metal category compounds only) + §6.2 (disposal only) - §8.8 (on-site or off-site release due to catastrophic events)[2]

- ❑ **Reporting quantities in Section 8.2 "Quantity used for energy recovery on-site."** A quantity must be reported in Section 8.2 for the current (reporting) year when a method of on-site energy recovery is reported in Section 7B, and vice versa. An error facilities make when completing Form R is to report the methods of energy recovery used on-site in Section 7B but not report the total quantity associated with those methods. Another error is to report a quantity in this section if the combustion of the EPCRA Section 313 chemical took place in a system that did not recover energy (e.g., an incinerator). A quantity of the EPCRA Section 313 chemical combusted for energy recovery must not be reported if the EPCRA Section 313 chemical does not have a significant heating value. Examples of EPCRA Section 313 chemicals that do not have significant heating values include metals, metal category compounds, and halons. Metals and metal portions of metal compounds will never be treated or combusted for energy recovery. Section 8.2 must not include any quantities of the EPCRA Section 313 chemical associated with non-production related activities, such as catastrophic releases and remedial actions, as well as other one-time events not associated with routine production practices, that were combusted for energy recovery on-site.

- ❑ **Reporting quantities in Section 8.3 "Quantity used for energy recovery off-site."** As in Section 8.2, a quantity must not be reported in this section if the off-site combustion of the EPCRA Section 313 chemical took place in a system that did not recover energy (e.g., incinerator). A quantity of an EPCRA Section 313 chemical must not be reported as sent off-site for the purposes of energy recovery if the EPCRA Section 313 chemical does not have a significant heating value. Examples of EPCRA Section 313 chemicals that do not have significant heating values include metals, metal compounds, and halons. Metals and metal portions of metal compounds will never be treated or combusted for energy recovery. Quantities must be reported in Section 8.3 that are reported in Section 6.2 as transferred off-site for the purposes of combustion for energy recovery using the following codes:

  - ❑ M56 Energy Recovery
  - ❑ M92 Transfer to Waste Broker — Energy Recovery

  §8.3 = §6.2 (energy recovery) - §8.8 (off-site energy recovery due to catastrophic events)[2]

[2] §8.8 includes quantities of toxic chemical released on-site or managed as waste off-site due to remedial actions, catastrophic events, or one-time events not associated with the production processes.

- **Reporting quantities in Section 8.4 "Quantity recycled on-site."** A quantity must be reported in **Section** 8.4 for the current reporting year when a method of on-site recycling is reported in Section 7C, and vice versa. An error facilities make when completing Form R is to report the methods of recycling used on-site in Section 7C but not report the total quantity recovered using those methods.

  In addition, only the amount of the chemical that was actually recovered is to be reported in Section 8.4. Any quantities of the EPCRA Section 313 chemical associated with non-production related activities such as catastrophic releases and remedial actions, as well as other one-time events not associated with routine production practices that were recycled on-site must not be included in Section 8.8.

- **Reporting quantities in Section 8.5. "Quantity recycled off-site."** Quantities reported in Section 6.2 as transferred off-site for the purposes of recycling must be included in Section 8.5 using the following codes:

  - M20 Solvents/Organic Recovery;
  - M24 Metals Recovery;
  - M26 Other Reuse or Recovery;
  - M28 Acid Regeneration;
  - M93 Transfer to Waste Broker – Recycling.

  Quantities that are actually recycled at an off-site facility must not be reported in Section 8.5 – facilities should report the quantity that was sent off-site for the purposes of recycling.

  §8.5 = §6.2 (recycling) - §8.8 (off-site recycling due to catastrophic events)[2]

- **Reporting quantities in Section 8.6 "Quantity treated on-site."** Quantities may not always have to be reported in Section 8.6 when Section 7A is completed. This is because the information reported in Section 7A and Section 8 is different. Information on how waste streams containing the reported EPCRA Section 313 chemical are treated is reported in Section 7A, while the quantity of the EPCRA Section 313 chemical actually destroyed as a result of on-site treatment is reported in Section 8.6. If a quantity is reported in Section 8.6, Section 7A must be completed but the reverse may not be true. This may result in apparent discrepancies between Section 7A and Section 8. For example, a facility may treat wastewater containing an EPCRA Section 313 chemical by removing the EPCRA Section 313 chemical and then disposing of it on-site. The treatment of the wastewater would be reported in Section 7A, with an efficiency estimate based on the amount of the EPCRA Section 313 chemical removed from the wastewater. Although the waste stream has been treated because the EPCRA Section 313 chemical has been removed, the EPCRA Section 313 chemical has not been treated because it has not been destroyed. The facility would report only the amount of the EPCRA Section 313 chemical actually destroyed during treatment in Section 8.6 and the amount ultimately disposed in Section 8.1 to avoid double-counting the same quantity in Section 8. In cases where the EPCRA Section 313 chemical is not destroyed during a treatment process and subsequently enters another activity, such as disposal (e.g., metals removed from wastewater and subsequently disposed on-site), the quantity of the EPCRA Section 313 chemical would be reported as disposed in Section 8.1, not as treated in Section 8.6. Quantities of the EPCRA Section 313 chemical associated with non-production related activities such as catastrophic releases and remedial actions, as well as one-time events not associated with routine production practices, that were treated on-site, must not be included in Section 8.6. Metals will never be treated or combusted for energy recovery.

- **Reporting quantities in Section 8.7 "Quantity treated off-site."** Quantities reported in Section 6.2 as transferred off-site for the purposes of treatment must be included in Section 8.7 using the following codes:

  - M50 Incineration/Thermal Treatment;
  - M54 Incineration/Insignificant Fuel Value;
  - M61 Wastewater Treatment (excluding POTW);
  - M69 Other Waste Treatment; and
  - M95 Transfer to Waste Broker – Waste Treatment.

  Quantities of an EPCRA Section 313 chemical, except metals and metal category compounds, sent off-site to a POTW should also be reported in Section 8.7.

To report correctly EPCRA Section 313 chemicals in Section 8.7, use the following equation.

§8.7 = §6.1 (excluding metal/metal category compounds) + §6.2 (treatment) - §8.8 (off-site treatment due to catastrophic events)[3]

- **Reporting quantities in Section 8.8 "Quantity released to the environment as a result of remedialactions catastrophic events or one-time events not associated with production processes."** The quantities that are reported in Section 8.8 are associated with non-production related activities such as catastrophic releases and remedial actions, as well as one-time events not associated with routine production practices, that were released directly to the environment or transferred off-site for the purposes of recycling, energy recovery, treatment or disposal. Quantities reported in Section 8.8 must not be reported in Section 8.1 through Section 8.7.

- **Reporting the production ratio in Section 8.9.** A production ratio or activity index must be provided in Section 8.9. A zero is not acceptable and "NA" (Not Applicable) can be used only when the reported EPCRA Section 313 chemical was not manufactured, processed, or otherwise used in the year prior to the reporting year.

- **Calculating production ratio in Section 8.9.** In calculating a production ratio for "otherwise used" chemicals, an activity index must be used rather than quantities purchased or released from year to year.

- **Reporting Source reduction activities in Section 8.10.** It is an error to report a source reduction activity in Section 8.10 and not report at least one method used to identify that activity and vice versa.

## Toxics Release Inventory Error Notices

**Notices of Data Change (NDCs).** NDCs correct data quality errors that are not technical or scientific. For example, if a facility transposes CAS numbers (e.g,. the submitter lists 7623-00-0 for sodium nitrite instead of 7632-00-0), the EPCRA Reporting Center (RC) will notify the facility indicating that the number has been corrected through the facility data profile. If a facility lists a specific glycol ethers subcategory, the EPCRA RC will replace this subcategory with the reportable name "certain glycol ethers." If a facility submits a non-reportable chemical, the EPCRA RC will file the form as a miscellaneous submission and inform the facility.

**Notices of Significant Error (NOSEs).** NOSEs are errors that prevent data from being entered into the system. These types of errors include the following and must be corrected by the facility.

1. You have submitted your Toxic Chemical Release Inventory report on an invalid form by using either the form not applicable for the reporting year, or a facsimile form that has not been approved by EPA.

2. You have submitted an incomplete Toxic Chemical Release Inventory Form. All pages of the form must be completed and resubmitted to EPA.

3. You have provided incomplete facility identification information.

4. You have either left the chemical identification blank, or the CAS number you reported is not listed on the Section 313 list of toxic chemicals.

5. You have provided a valid CAS number and a valid chemical name, but they do not match.

6. You have provided a valid CAS number, but the chemical name you provided is not a Section 313 chemical name or recognized synonym.

7. You have reported for multiple chemicals in one Form R report.

**Notices of Noncompliance (NONs).** NONs are issued for the same exact errors as NOSEs (see NOSE errors, above). If a facility does not respond to a NOSE within 21 days, EPA will issue a NON. If there is no response to the NON, then the Office of Enforcement and Compliance Assistance (OECA) is notified and follow up action is taken.

**Notices of Technical Error (NOTEs).** NOTEs are identified in the Facility Data Profile for errors that allow

[3] §8.8 includes quantities of toxic chemical released on-site or managed as waste off-site due to remedial actions, catastrophic events, or one-time events not associated with the production processes.

data to be entered into the system, but for errors that can skew any analyses if not corrected. These types of errors include the following.

101. You must sign the form and date the signature, part I, section 3.

102. You must enter the name and telephone number of the technical contact for the facility in part I, section 4.3.

103. For each receiving stream in part II, section 5.3, you must enter an estimate of the release or "NA" in column A.

104. You must list the name of the receiving stream for each release in part II, section 5.3, column A.

105. You must list the name and location of the POTW for the discharge reported in part II, section 6.1.A.1. "NA" is not acceptable.

106. For total discharges of this chemical to POTWs listed in part II, section 6.1.B, you must enter an estimate of the total discharge or "NA" in part II, section 6.1.A.1.

107. You must list the name and location of the other off-site(s) for the transfer(s) of waste indicated in part II, section 6.2.A. "NA" is not acceptable.

108. For each other off-site listed in part II, section 6.2, you must enter at least one estimated transfer or "NA" in column A.

109. You did not enter any information in part II, section 8.1 - 8.7. you must enter an estimate,"0", or "NA" in each box for section 8.1 - 8.7, columns A,B,C,& D.

110. You must enter a non-negative estimate for any quantity reported in columns A through D of part II, section 8.1 through 8.7.

111. You must enter either a non-negative value or zero for part II, section 8.8, "quantity released as a result of remedial actions, catastrophic events, or one time-events not associated with production processes."

112. You did not correctly complete part II section 8.9. You must enter a non-negative, non-zero "production ratio or activity index" for this chemical. See the instructions for calculation of this ratio. If the manufacture, process, or use of the reported chemical began during the current reporting year, enter "NA".

117. You did not correctly complete part II, section 6.2, column C, "type of treatment/disposal/etc." For each off-site transfer, you must enter the treatment, recycling, energy recovery, or disposal code for the method used. See the Form R instructions for valid codes.

201. You either did not provide a standard industrial classification (SIC) code to identify the activities occurring at your facility or you provided an invalid code(s) (part I, section 4.5). Non-federal facilities must provide at least one valid primary four-digit SIC code between 20(00) and 39(99).

202. You did not correctly complete part I, section 4.6, latitude and longitude for your facility. "NA" is not an acceptable entry. Latitude and longitude should be seven digits with leading and/or trailing zeroes. The 48 contiguous U.S. states have latitudes ranging (south to north) from 24 degrees 33 minutes 00 seconds to 48 degrees 23 minutes 00 seconds and longitudes (east to west) from 66 degrees 57 minutes 00 seconds to 124 degrees 44 minutes 00 seconds respectively. Please consult Form R, appendix E and instructions.

212. You did not indicate in part II, section 3 which activity(ies) and use(s) of the EPCRA Section 313 chemical occur at your facility. Check at least one.

213. You did not complete part II, section 4. You must enter the "maximum amount of chemical on-site at any time during the calendar year". Report the maximum amount as a two digit code. See the instructions for valid codes.

214. You did not complete part II, section 5, "Quantity of the Toxic Chemical Entering each Environmental Medium On-site." If you did not release the chemical to the environment, enter "0" or "NA" as appropriate for each release type.

215. You did not complete part II, section 6.1, "discharges to POTW." If you did not discharge the chemical in wastewater to a POTW(s), enter "NA" in section 6.1.A.1 or section 6.1.B.1.

216. You did not complete part II, section 6.2, "Transfers to Other Off- site Locations." If you did not

transfer the chemical in waste to other off-site locations, enter "NA" in section 6.2, the first off-site EPA identification number (RCRA ID No.) and/or off-site location name.

217. You incorrectly completed part II, section 6.2 column C "Type of Waste Treatment / Disposal / Recycling / Energy Recovery." For each off-site transfer, you must enter the treatment, recycling, energy recovery, or disposal code for the method used. See the instructions for valid codes.

218. You did not enter any information in part II, section 7A, "On-site Waste Treatment Methods and Efficiency." If you do not treat wastes containing the EPCRA Section 313 chemical at your facility, check "NA."

220. You must enter either a zero or a non-negative value for an estimate in part II, section 5 or for an off-site transfer in part II, section 6.

221. You did not enter any information in part II, section 7B, "On-site Energy Recovery Processes" or in part II, section 7C "On-site Recycling Processes." You must enter at least one method code or check "NA" in each section.

222. You did not complete column B in part II, section 8.1. You must enter an estimate, "NA", or "0" in this column.

223. You did not complete column B in part II, section 8.2. You must enter an estimate, "NA", or "0" in this column.

224. You did not complete column B in part II, section 8.3. You must enter an estimate, "NA", or "0" in this column.

225. You did not complete column B in part II, section 8.4. You must enter an estimate, "NA", or "0" in this column.

226. You did not complete column B in part II, section 8.5. You must enter an estimate, "NA", or "0" in this column.

227. You did not complete column B in part II, section 8.6. You must enter an estimate, "NA", or "0" in this column.

228. You did not complete column B in part II, section 8.7. You must enter an estimate, "NA", or "0" in this column.

239. You did not complete part 1, section 4.2.C. If your facility is a federal facility, please check the 'federal facility' box.

244. If you report releases in part II, section 5 and/or off-site transfer in section 6.2 and/or quantities transferred off-site to POTWs in section 6.1, you must report an estimate in part II, section 8.1 through 8.7 column B and/or section 8.8.

245. If you enter an estimate in part II, section 8.1 through 8.7, column B and/or section 8.8, you must also report releases in part II, section 5 and/or off-site transfers in section 6.2 and/or quantities transferred off-site to POTWs in section 6.1 and/or more waste treatment, energy recovery, or recycling codes in section 7.

318. You entered an invalid energy recovery method code in part II, section 7B, "On-site Energy Recovery Processes." The code consists of a "U" followed by two digits. See appendix B of the Form R and instructions for valid codes.

319. You entered an invalid recycling code in part II, section 7C, "On-site Recycling Processes." The code consists of an "R" followed by two digits. See appendix B of the Form R and instructions for valid codes.

321. If you enter an estimate in part II, section 8.2, column B, "Quantity Used for Energy Recovery On-site," you must enter one or more energy recovery codes in part II, section 7B.

322. If you enter an "On-site Energy Recovery Process" code in part II, section 7B, you must enter an estimate of the quantity used for energy recovery in part II, section 8.2, column B.

325. If you enter an estimate in part II, section 8.4, column B "Quantity Recycled On-site", you must enter one or more recycling codes in part II, section 7C.

326. If you enter one or more on-site recycling process codes in part II, section 7C. You must enter an estimate in part II, section 8.4, column B, "Quantity Recycled On-site."

329. If you enter an estimate in part II, section 8.6, column B "Quantity Treated On-site", you must complete part II, section 7A "On-site Waste Treatment Methods and Efficiency." "NA" is not an acceptable entry.

332. You have entered an invalid code in part II, section 8.10.1-4. "Source Reduction Activity" codes consist of the letter "W" followed by two digits. See appendix B of the appropriately dated Form R and instructions for valid codes.

339. You reported an invalid Type of Waste Treatment code. For metals/metal category compounds use only disposal and certain recycling activities codes. Consult the guidance for metal and metal category compounds and correct with a valid waste management (i.e., "M") code.

340. For non-metals, codes M41 and M62 are unacceptable. Provide the appropriate Disposal or Other Waste Management code for this non-metal substance.

341. You have not correctly completed part II, section 8.10.1. If you enter one or more "Methods to Identify Activity" code in part II, section 8.10.1 (A - C), you must also enter the associated "Source Reduction Activity " code, which consist of the letter "W" followed by two digits. See Appendix B of the instructions for valid codes. If your facility did not undertake any source reduction activities, enter "NA" in the first column of section 8.10.1.

342. You have not correctly completed part II, section 8.10.2. If you enter one or more "Methods to Identify Activity" code in part II, section 8.10.2 (A - C), you must also enter the associated "Source Reduction Activity " code, which consist of the letter "W" followed by two digits. See appendix B of the instructions for valid codes. If your facility did not undertake any source reduction activities, enter "NA" in the first column of section 8.10.2.

343. You have not correctly completed part II, section 8.10.3. If you enter one or more "Methods to Identify Activity" code in part II, section 8.10.3 (A-C), you must also enter the associated "Source Reduction Activity " code, which consist of the letter "W" followed by two digits. See appendix B of the instructions for valid codes. If your facility did not undertake any source reduction activities, enter "NA" in the first column of section 8.10.3.

344. You have not correctly completed part II, section 8.10.4. If you enter one or more "Methods to Identify Activity" code in part II, section 8.10.4 (A - C), you must also enter the associated "Source Reduction Activity " code, which consist of the letter "W" followed by two digits. See appendix B of the instructions for valid codes. If your facility did not undertake any source reduction activities, enter "NA" in the first column of section 8.10.4.

346. You did not complete columns A, C, or D in part II, section 8.1. You must enter an estimate, "NA", or "0" in each column.

347. You did not complete columns A, C, or D in part II, section 8.2. You must enter an estimate, "NA", or "0" in each column.

348. You did not complete columns A, C, or D in part II, section 8.3. You must enter an estimate, "NA", or "0" in each column.

349. You did not complete columns A, C, or D in part II, section 8.4. You must enter an estimate, "NA", or "0" in each column.

350. You did not complete columns A, C, or D in part II, section 8.5. You must enter an estimate, "NA", or "0" in each column.

351. You did not complete columns A, C, or D in part II, section 8.6. You must enter an estimate, "NA", or "0" in each column.

352. You did not complete columns A, C, or D in part II, section 8.7. You must enter an estimate, "NA", or "0" in each column.

# Appendix D. Supplier Notification Requirements

Because manufacturers reporting under section 313 must know the EPCRA Section 313 chemical composition of the products they use to be able to accurately calculate releases, EPA requires some suppliers of mixtures or other trade name products containing one or more of the EPCRA section 313 chemicals to notify their customers. This requirement has been in effect since January 1, 1989.

This appendix explains which suppliers must notify their customers, who must be notified, what form the notice must take, and when it must be sent.

## Who Must Supply Notification

You are covered by the section 313 supplier notification requirements if you own or operate a facility which meets all of the following criteria:

(1) Your facility is in Standard Industrial Classification [SIC] codes 20–39;

(2) You manufacture, import, or process an EPCRA Section 313 chemical; and

(3) You sell or otherwise distribute a mixture or other trade name product containing the EPCRA Section 313 chemical to either:

- ❑ A facility in a covered SIC code (see Table I).
- ❑ A facility that then may sell the same mixture or other trade name product to a firm in a covered SIC code (see Table I).

**Note that you may be covered by the supplier notification rules even if you are not covered by the section 313 release reporting requirements.** For example, even if you have fewer than 10 full-time employees or do not manufacture or process any of the EPCRA Section 313 chemicals in sufficient quantities to trigger the release and other waste management reporting requirements, you may still be required to notify certain customers.

## Who Must Be Notified

Also, note that beginning with the 1998 reporting year, seven new industries are now covered by most of the EPCRA section 313 reporting requirements. These new industries are not required to comply with most of the supplier notification requirements. Industries whose primary SIC code is not within 20 through 39 are not required to initiate the distribution of notifications for EPCRA Section 313 chemicals in mixtures or other trade name products that they send to their customers.

However, if these facilities receive notifications from their suppliers about EPCRA Section 313 chemicals in mixtures or other trade name products, they should forward the notifications with the EPCRA Section 313 chemicals they send to other covered users.

An example would be if you sold a lacquer containing toluene to distributors who then may sell the product to other manufacturers. The distributors are not in a covered SIC code, but because they sell the product to companies in covered SIC codes, they must be notified so that they may pass the notice along to their customers, as required.

The language of the supplier notification requirements covers mixtures or other trade name products that are sold or otherwise distributed. The "otherwise distributes" language applies to intra-company transfers. However, if the company has developed an internal communications procedure that alerts their other facilities to the presence and content of covered EPCRA Section 313 chemicals in their products, then EPA would accept this.

Note that beginning with the first shipments in 1998, facilities in SIC codes 20–39 will be required to also notify facilities in the newly added industry groups.

## Supplier Notification Must Include the Following Information:

(1) A statement that the mixture or other trade name product contains an EPCRA Section 313 chemical or chemicals subject to the reporting requirements of EPCRA section 313 (40 CFR 372);

(2) The name of each EPCRA Section 313 chemical and the associated Chemical Abstracts Service (CAS) registry number of each chemical if applicable. (CAS numbers are not used for chemical categories, since they can represent several individual EPCRA Section 313 chemicals.); and

(3) The percentage, by weight, of each EPCRA Section 313 chemical (or all EPCRA Section 313 chemicals within a listed category) contained in the mixture or other trade name product.

For example, if a mixture contains a chemical (i.e., 12 percent zinc oxide) that is a member of a reportable EPCRA Section 313 chemical category (i.e., zinc compounds), the notification must indicate that the mixture contains a zinc compound at 12 percent by weight. Supplying only the weight percent of the parent metal (zinc) does not fulfill the requirement. The customer must be told the weight percent of the entire compound within an EPCRA Section 313 chemical category present in the mixture.

## How the Notification Must Be Made

The required notification must be provided at least annually in writing. Acceptable forms of notice include letters, product labeling, and product literature distributed to customers. If you are required to prepare and distribute a Material Safety Data Sheet (MSDS) for the mixture under the Occupational Safety and Health Act (OSHA) Hazard Communication Standard, your section 313 notification must be attached to the MSDS or the MSDS must be modified to include the required information. (A sample letter and recommended text for inclusion in an MSDS appear at the end of this appendix.)

You must make it clear to your customers that any copies or redistribution of the MSDS or other form of notification must include the section 313 notice. In other words, your customers should understand their requirement to include the section 313 notification if they give your MSDS to their customers.

## When Notification Must Be Provided

In general, you must notify each customer receiving a mixture or other trade name product containing an EPCRA Section 313 chemical with the first shipment of each calendar year. You may send the notice with subsequent shipments as well, but it is required that you send it with the first shipment each year. Once customers have been provided with an MSDS containing the section 313 information, you may refer to the MSDS by a written letter in subsequent years (as long as the MSDS is current).

If EPA adds EPCRA Section 313 chemicals to the section 313 list, and your products contain the newly added EPCRA Section 313 chemicals, notify your customers with the first shipment made during the next calendar year following EPA's final decision to add the chemical to the list. For example, if EPA adds chemical ABC to the list in September 1998, supplier notification for chemical ABC would have begun with the first shipment in 1999.

You must send a new or revised notice to your customers if you:

(1) Change a mixture or other trade name product by adding, removing, or changing the percentage by weight of an EPCRA Section 313 chemical; or

(2) Discover that your previous notification did not properly identify the EPCRA Section 313 chemicals in the mixture or correctly indicate the percentage by weight.

In these cases, you must:

(1) Supply a new or revised notification within 30 days of a change in the product or the discovery of misidentified EPCRA Section 313 chemical(s) in the mixture or incorrect percentages by weight; and

(2) Identify in the notification the prior shipments of the mixture or product in that calendar year to which the new notification applies (e.g., if the revised notification is made on August 12, indicate which shipments were affected during the period January 1 - August 12).

## When Notifications Are Not Required

Supplier notification is not required for a "pure" EPCRA Section 313 chemical unless a trade name is used. The identity of the EPCRA Section 313 chemical will be known based on label information.

You are not required to make a "negative declaration." That is, you are not required to indicate that a product contains no EPCRA Section 313 chemicals.

If your mixture or other trade name product contains one of the EPCRA Section 313 chemicals, you are not required to notify your customers if:

(1) Your mixture or other trade name product contains the EPCRA Section 313 chemical in percentages by weight of less than the following levels (These are known as *de minimis* levels):

- ❑ 0.1 percent if the EPCRA Section 313 chemical is defined as an "OSHA carcinogen";
- ❑ 1 percent for other EPCRA Section 313 chemicals.

*De minimis* levels for each EPCRA Section 313 chemical and chemical category are listed in Table II.

(2) Your mixture or other trade name product is one of the following:

- ❑ An article that does not release an EPCRA Section 313 chemical under normal conditions of processing or otherwise use.
- ❑ Foods, drugs, cosmetics, alcoholic beverages, tobacco, or tobacco products packaged for distribution to the general public.
- ❑ Any consumer product, as the term is defined in the Consumer Product Safety Act, packaged for distribution to the general public. For example, if you mix or package one-gallon cans of paint designed for use by the general public, notification is not required.

(3) You are initiating distribution of a mixture or other trade name product containing one or more EPCRA Section 313 chemicals and your facility is in any of the newly covered SIC codes including facilities whose SIC code is within SIC major group codes 10 (except 1011, 1081, and 1094), 12 (except 1241); industry codes 4911 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce), or 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce); or 4953 (limited to facilities regulated under the Resource Conservation and Recovery Act, subtitle C, 42 U.S.C. Section 6921 et seq.) or 5169, or 5171, or 7389 (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis).

## Trade Secrets

Chemical suppliers may consider the chemical name or the specific concentration of an EPCRA Section 313 chemical in a mixture or other trade name product to be a trade secret. If you consider the:

(1) Specific identity of an EPCRA Section 313 chemical to be a trade secret, the notice must contain a generic chemical name that is descriptive of the structure of that EPCRA Section 313 chemical. For example, decabromodiphenyl oxide could be described as a halogenated aromatic.

(2) Specific percentage by weight of an EPCRA Section 313 chemical in the mixture or other trade name product to be a trade secret, your notice must contain a statement that the EPCRA Section 313 chemical is present at a concentration that does not exceed a specified upper bound. For example, if a mixture contains 12 percent toluene and you consider the percentage a trade secret, the notification may state that the mixture contains toluene at no more than 15 percent by weight. The upper bound value chosen must be no larger than necessary to adequately protect the trade secret.

If you claim this information to be trade secret, you must have documentation that provides the basis for your claim.

## Recordkeeping Requirements

You are required to **keep records for <u>three years</u>** of the following:

(1) Notifications sent to recipients of your mixture or other trade name product;

(2) All supporting materials used to develop the notice;

(3) If claiming a specific EPCRA Section 313 chemical identity a trade secret, why the EPCRA Section 313 chemical identity is considered a trade secret and the appropriateness of the generic chemical name provided in the notification; and

(4) If claiming a specific concentration a trade secret, explanations of why a specific concentration is considered a trade secret and the basis for the upper bound concentration limit.

This information must be readily available for inspection by EPA.

## Sample Notification Letter

January 2, 2000

Mr. Edward Burke
Furniture Company of North Carolina
1000 Main Street
Anytown, North Carolina 99999

Dear Mr. Burke:

This letter is to inform you that a product that we sell to you, Furniture Lacquer KXZ-1390, contains one or more chemicals subject to Section 313 of Emergency Planning and Community Right-to-Know Act (EPCRA). We are required to notify you of the presence of these chemicals in the product under EPCRA section 313. This law requires certain industrial facilities to report on annual emissions and other waste management of specified EPCRA Section 313 chemicals and chemical categories. Our product contains:

- ☐ Toluene, Chemical Abstract Service (CAS) number 108-88-3, 20 percent, and

- ☐ Zinc compounds, 15 percent.

If you are unsure whether you are subject to the reporting requirements of EPCRA Section 313, or need more information, call EPA's EPCRA Hotline at 1 (800) 424-9346, or (703) 412-9877. Your other suppliers should also be notifying you about EPCRA Section 313 chemicals in the mixtures and other trade name products they sell to you.

Finally, please note that if you repackage or otherwise redistribute this product to industrial customers, a notice similar to this one must be sent to those customers.

Sincerely,

Emma Sinclair
Sales Manager
Furniture Products

## Sample Notification on an MSDS

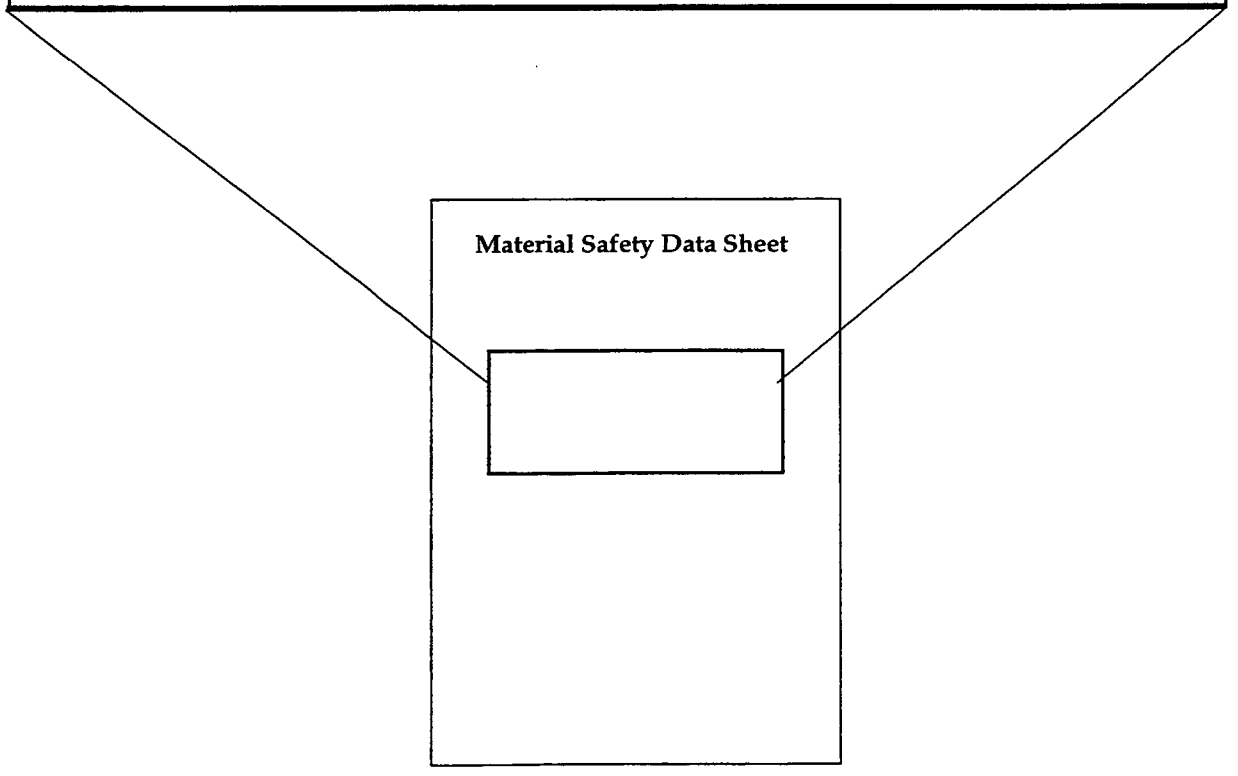
Furniture Products

Section 313 Supplier Notification

This product contains the following EPCRA Section 313 chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372):

| CAS # | Chemical Name | Percent by Weight |
|---|---|---|
| 108-88-3 | Toluene | 20% |
| NA | Zinc Compounds | 15% |

This information should be included in all MSDSs that are copied and distributed for this material.



# Appendix E. How To Determine Latitude and Longitude From Topographic Maps

Latitude and longitude coordinates of reporting facilities are very important for pinpointing facility location and are a required data element on Form R. As such, EPA is encouraging facilities to make the best possible measurements when determining latitude and longitude. As with any other data element, missing, suspect, or incorrect data may result in EPA issuing a Notice of Technical Error to the facility.

Latitude is the distance north or south of the equator. Longitude is the distance east or west of the prime meridian (Greenwich, England). Latitude and longitude are measured in degrees, minutes, and seconds.

60" (seconds) = 1' (minute)
60' (minutes) = 1° (degree)

The most important tool available for determining latitude and longitude for your facility is the U.S. Geological Survey (USGS) topographic quadrangle map. These maps are published in varying degrees of detail. The most detailed version of the topographic quadrangle map is in 7.5 x 7.5 minute increments with a scale of 1:24000 (i.e., one inch on the map represents 2,000 feet). Detailed topographic quadrangle maps are also available in 7.5 x 15 minute increments with a scale of 1:250,000 (i.e., one inch on the map represents approximately four miles). It is very important that latitude and longitude measurements be made from one of the detailed maps described above. Otherwise, measurements will not accurately reflect the location of your facility and could be identified as an error on your Form R submission.

In order to identify the detailed topographic quadrangle map in which your facility is located, the USGS has published an index and a catalog of topographic maps available for each state. Both the index and the catalog are available in many libraries or free of charge from the Distribution Branch of the USGS (address on following page). The *Index to Topographic and Other Map Coverage* helps you to identify the most detailed map in which your facility is located. To identify the most detailed map, follow these simple steps on how to use the index:

(1) The beginning of each index contains a map of the state, broken into numbered quadrangular sections. The numbered quadrangular sections are called general areas of interest. Identify the numbered section in which your facility is located.

(2) The subsequent pages of the index contain detailed maps of each general area of interest, in numerical order. Identify the detailed map corresponding to the numbered general area of interest identified in Step 1.

(3) Within this detailed map, identify the smaller quadrangular area in which your facility is located. This smaller quadrangular section is the specific area of interest. Record first the letter then the number coordinate for your specific area of interest (e.g., E4).

(4) Using the chart found on the same page as the detailed map of the general area of interest, record the name of the specific area of interest in which your facility is located, identified by the letter and number coordinates (e.g., Richmond).

The name of the specific area of interest and its corresponding letter and number coordinates identify the most detailed topographic quadrangle map in which your facility is located. To identify the map reference code and file number necessary to order this map, follow these simple steps for using the *Catalog of Topographic and Other Published Maps* for the state in which your facility is located:

(5) The beginning of the catalog explains the meaning of the reference code. On the pages following this explanation, there are charts listed alphabetically by the name of the specific area of interest with corresponding file numbers and map reference codes. Using the name of the specific area of interest recorded in Step 4, identify the file number and map reference code from the chart for the map in which your facility is located (e.g., file number 00692, map reference code 37977-E4-TF-024-00).

(6) Use the file number and map reference code to obtain the specific topographic quadrangle map in which your facility is located.

These detailed topographic quadrangle maps are available in many libraries or for purchase from the Distribution Branch of the USGS and from private map dealers. The *Catalog of Topographic and Other Published Maps* contains a list of map depository libraries and topographic map dealers for each state covered in the catalog.

To purchase a topographic quadrangle map from the USGS, you must send a written request to the Distribution Branch of the USGS, containing the file number, map reference code, the name of the city, state and zip code in which your facility is located, payment of

$4.00 per map sheet and a handling charge of $3.50 for each order mailed.

The Distribution Branch of the USGS can be reached at:

**Distribution Branch of the USGS**
**P.O. Box 25286**
**Denver Federal Center**
**Denver, CO 80225**
**(303) 202-4700**
**ALLOW 5 WEEKS FOR DELIVERY**

In addition, you may purchase a topographic quadrangle map from the USGS through a USGS Public Inquiry Office. The Public Inquiry Offices are listed for each state on the inside back cover of the *Catalog of Topographic and Other Published Maps*.

If you need help in determining your latitude and longitude, once you have the necessary map, the **National Cartographic Information Center** can provide assistance:

**Western states: (303) 202-4200**
**Eastern states: (314) 341-0851**

Please call in advance of the section 313 reporting deadline to avoid unnecessary delays.

## Determining Your Facility's Latitude and Longitude

(See diagram next page.)

Once you have obtained the correct map for your facility:

(1) Mark the location of your facility on the map with a point. If your facility is large, choose a point central to the production activities of the facility. If certain structures in your facility are represented on the map, mark one of the structures with a point.

(2) Construct a small rectangle around the point with fine pencil lines connecting the nearest 2.5' or 5' graticules. Graticules are intersections of latitude and longitude lines that are marked on the map edge, and appear as black crosses at four points in the interior of the map.

(3) Read and record the latitude and longitude (in degrees, minutes, and seconds) for the southeast corner of the small quadrangle drawn in step two. The latitude and longitude are printed at the edges of the map.

(4) To determine the increment of latitude above the latitude line recorded in step 3,

- position the map so that you face west;
- place the ruler in approximately a north-south alignment, with the "0" on the latitude line recorded in step 3 with the ruler edge intersecting the point.

Without moving the ruler, read and record:

- the measurement from the latitude line to the desired point (the point distance);
- the measurement from the latitude line to the north line of the small quadrangle (the total distance).

Determine the number of seconds to be added to the latitude recorded in step 3 by using the ratio:

$$\frac{\text{Point distance}}{\text{Total distance between lines}} \times 150'' = \text{increment of latitude}$$

[Note: 150" is the number of seconds of arc for the side of the small quadrangle on a 7.5' map. If you are using a 15' map, the multiplication factor is 300" instead of 150" since each graticule is 5' of latitude or longitude.]

For example:

| | | |
|---|---|---|
| Point distance | = | 99.5 |
| Total distance | = | 192.0 |
| $\frac{99.5}{192.0} \times 150''$ | = | 77.7" |
| | = | 01'17.7" |

(60" = 1'; 77.7" = 60" + 17.7" = 01' 17.7")

| | |
|---|---|
| Latitude in step 3 | 32°17'30" |
| Increment | + 01'17.7" |
| Latitude of point | 32°18'47.7" |
| to the nearest second | = 32°18'48" |

(5) To determine the increment of longitude west of the longitude line recorded in step 3,

- position the map so that you face south;
- place the ruler in approximately an east-west alignment with the "0" on the longitude line recorded in step 3 with the ruler edge intersecting the point.

Without moving the ruler, read and record:

- the measurement from the longitude line to the desired point (the point distance);
- the measurement from the longitude line to the west line of the small quadrangle (the total distance).

Determine the number of seconds to be added to the longitude recorded in step 3 by using the ratio:

$$\frac{\text{Point distance}}{\text{total distance between lines}} \times 150" = \text{increment of longitude}$$

For example:

| | | |
|---|---|---|
| Point distance | = | 65.0 |
| Total distance | = | 149.9 |

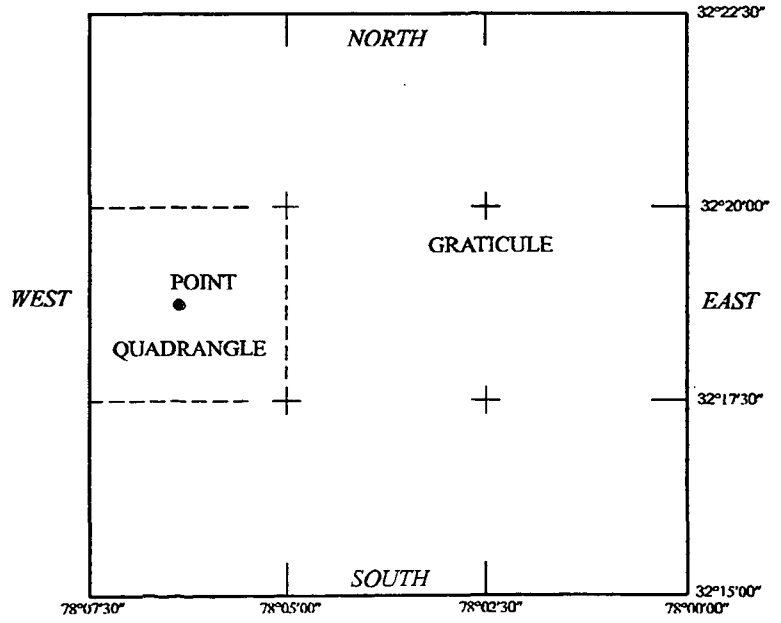
$\frac{65.0}{149.9} \times 150" = 65" = 01'05"$

(60" = 1'; 65" = 60" + 05" = 01'05")

| | |
|---|---|
| Longitude in step 3 | 78°05'00" |
| Increment | + 01'05" |
| Longitude of point | 78°06'05" |
| to the nearest second | = 78°06'05" |

**Note: Use the appropriate address for submission of Form R reports to your State. In addition, many States have additional state reporting requirements. Check with your State contact on any State requirements.**

## Latitude/Longitude Diagram




**Point Latitude 32°18'48' North, Lontitude 78°06'05' West**

**Note: This diagram is based on a USGS 7.5 Minute Series Topographic Map. It is not drawn to scale.**

# Appendix F. State Designated Section 313 Contacts

**Submitting Electronically to States:** As of the publication of this book the following states confirmed that they accept electronic submission.

| | | | |
|---|---|---|---|
| AK | ID | NC | SC |
| AZ | IL | ND | SD |
| CA | IN | NJ | TX |
| CO | KS | NM | UT |
| DC | LA | NY | VA |
| DE | MD | NV | VT |
| FL | MI | OH | WA |
| GA | MN | OK | WI |
| HI | MO | OR | WV |
| IA | MT | PA | WY |

**If your state is not listed here, please contact your state office to confirm that paper submissions are required.**

**Alabama**
Mr. Kirk Chandler
Alabama Emergency Response Commission
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, AL 36130-1463
(334) 260-2717, Fax: (334) 272-8131
kfc@adem.state.al.us

**Alaska**
Ms. Camille Stephens
Department of Environmental Conservation
Government Preparedness and Response Program
410 Willoughby Avenue, Suite 105
Juneau, AK 99801-1795
(907) 465-5242, Fax: (907) 465-5244
cstephen@envircon.state.ak.us

**American Samoa**
Mr. Togipa Tausaga
American Samoa EPA
American Samoa Government
Office of the Governor
Pago Pago, AS 96799
International Number (684) 633-2304
asepa@samoatelco.com

**Arizona**
Mr. Daniel Roe, Executive Director
Arizona Emergency Response Commission
5636 East McDowell Road
Phoenix, AZ 85008
(602) 231-6346, Fax: (602)392-7519
roed@dem.state.az.us

Mr. Bill Quinn
Arizona Department of Environmental Quality
Pollution Prevention Unit Manager
3033 N. Central
Phoenix, AZ 85012
(602) 207-4203, Fax: (602) 207-4538
quinn.bill@en.state.az.us

**Arkansas**
Mr. Bob Johns
Arkansas Office of Emergency Services
P.O. Box 758
Conway, AR 72203-0758
Attn: Office of Hazardous Materials
(501) 703-9789, Fax: (501) 703-9754

**Certified Mail ONLY**
Mr. Bob Johns
Arkansas Office of Emergency Services
1835 South Donaghey
Conway, AR 72032
Attn: OHM

**California**
Mr. Stephen Hanna
California Environmental Protection Agency
Department of Toxic Substances Control
P.O. Box 806
Sacramento, CA 95812-0806
(916) 324-9924, Fax: (916) 324-1788
shanna@dtsc.ca.gov

**Colorado**
Mr. Kirk Mills
Mail Stop PPP-B2
Colorado Emergency Planning Commission
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80246
(303) 692-3017, Fax: (303) 782-4969
kirk.mills@state.co.us

**Commonwealth of Northern Mariana Islands**
Mr. Ignacio V. Cabrera, Director
Division of Environmental Quality
Commonwealth of the Northern Mariana Islands
P.O. Box 1304
Saipan, MP 96950
International Number (670) 234-6984
Fax: (670) 234-1003
deq.director@saipan.com

**Connecticut**
Mr. Joseph Pulaski
SERC Administrator
Department of Environmental Protection
79 Elm Street, 4th Floor
Hartford, CT 06106-5127
(860) 424-3373, Fax: (860) 424-4509
joesph.pulaski@po.state.ct.us

**Delaware**
Mr. David Fees
EPCRA Reporting Program
Air Quality Management, DNREC
156 South State Street
Dover, DE 19901
(302) 739-4791, Fax (302) 739-3160
dfees@dnrec.state.de.us

**District of Columbia**
Ms. Michele Penick
Environmental Planning Specialist
Emergency Response Commission for Title III
2000 14th Street, NW, 8th Floor
Washington, DC 20009
(202) 673-2101 (ext. 3159) , Fax: (202) 673-2290

**Florida**
Mr. Sam Brackett
State Emergency Response Commission
Florida Department of Community Affairs
2555 Shumard Oak Blvd.
Tallahassee, FL 32399-2100
(850) 413-9928, Fax: (850) 488-1739
sam.brackett@dca.state.fl.us

**Georgia**
Dr. Bert K. Langley
Georgia Emergency Response Commission
7 Martin Luther King, Jr. Drive, Room 139
Atlanta, GA 30334
(404) 656-6905, Fax: (404) 657-7893
bert_langley@mail.dnr.state.ga.us

**Guam**
Ms. Conchita Tatano, Director
Air and Land Division
Guam EPA
P.O. Box 22439, GMF
Barrigada, GU 96921
International Number (671) 475-1658
Fax: (671) 477-9402

**Hawaii**
Ms. Marsha Graf
Hawaii State Emergency Response Commission
Hawaii Department of Health
919 Ala Moana Blvd., 3rd Floor, Room 206
Honolulu, HI 96814
(808) 586-4249, Fax: (808) 586-7537
heer@eha.health.state.hi.us

**Idaho**
Mr. Bill Bishop
Bureau of Hazardous Materials
4040 Guard Street, Bldg. 600
Gowen Field
P.O. Box 83720
Boise, ID 83705-5004
(208) 334-3263, Fax: (208) 334-3267
bbishop@bds.state.id.us

**Illinois**
Mr. Joe Goodner
Illinois EPA
Office of Chemical Safety #28
1021 N. Grand Avenue, East
P.O. Box 19276
Springfield, IL 62794-9276
(217) 785-0830, Fax: (217) 782-1431
epa8538@epa.state.il.us

**Certified or Express Mail ONLY**
Mr. Joe Goodner
Illinois EPA
Office of Chemical Safety #28
1021 N. Grand Avenue, East
Springfield, IL 62702

**Indiana**
John Chavez, Chief
Office of Pollution Prevention Technical Assistance
Indiana Government Center North
100 North Senate Ave.
P.O. Box 6015
Indianapolis, IN 46206-6015
(317) 233-6661, Fax: (317) 233-5627
jchavez@dem.state.in.us.

**Iowa**
Ms. Susan Dixon, Supervisor
Contamination-sites Section
Department of Natural Resources
900 E. Grand Avenue
Urbandale, IA 50319
(515) 242-6346, Fax: (515) 281-8895
susan.dixon@dnr.state.ia.us

**Kansas**
Mr. Scott Bangert
Kansas Emergency Response Commission
Right-to-Know Program
J Street and 2 North
Forbes Field Building 283
Topeka, KS 66620
(785) 296-1689, Fax: (785) 296-1545

**Kentucky**
Mr. Alex Barber
Kentucky Department for Environmental Protection
14 Reilly Road
Frankfort, KY 40601-1132
(502) 564-2150, Fax: (502) 564-4245
barber@nrpath.nr.state.ky.us

**Louisiana**
Ms. Linda Brown
Department of Environmental Quality
Office of Environmental Assessment Evaluation Division
P.O. Box 82178
Baton Rouge, LA 70884-2178
(225) 765-2993, Fax: (225) 765-0617
lindab@deq.state.la.us

**Maine**
Ms. Rayna Leibowitz
State Emergency Response Commission
72 State House Station
Augusta, ME 04333
(207) 287-4080, Fax: (207) 287-4079
rayna.b.leibowitz@state.me.us

**Maryland**
Ms. Patricia Williams
Maryland Department of the Environment
Technical and Regulatory Services Administration
Community Right-to-Know
2500 Broening Highway
Baltimore, MD 21224
(410) 631-3800, Fax: (410) 631-3873
pwilliams@mde.state.md.us

**Massachusetts**
Mr. Walter Hope
Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
1 Winter Street
Boston, MA 02108
(617) 292-5982, Fax: (617) 292-5858
walter.hope@state.ma.us

**Michigan**
Mr. Robert Jackson
State Emergency Planning and Community Right-to-Know
Michigan Dept. of Environmental Quality
Environmental Assistance Division
P.O. Box 30457
Lansing, MI 48909
(517) 373-8481, Fax: (517) 241-7966
JACKSORC@state.mi.us

**Certified Mail ONLY**
Mr. Robert Jackson
State Emergency Planning and Community Right-to-Know
Michigan Dept. of Environmental Quality
Environmental Assistance Division
333 S. Capitol
Town CTR, 2nd Floor
Lansing, MI 48909

**Minnesota**
Mr. Steve Tomlyanovich
Department of Public Safety
Emergency Response Commission
444 Cedar Street, Suite 223
St Paul, MN 55101
(612) 282-5396, Fax: (612) 296-0459
steve.tomlyanovich@state.mn.us

**Mississippi**
Mr. John David Burns
Mississippi Department of Environmental Quality
P.O. Box 20305
Jackson, MS 39289-1305
(601) 961-5005, Fax: (601) 961-5660
john_d_burns@deq.state.ms.us

**Certified Mail ONLY**
Mr. John David Burns
Mississippi Department of Environmental Quality
2380 Highway 80 West
Jackson, MS 39204

**Missouri**
Mr. Gene Nickel
Technical Assistance Program
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102
(573) 526-6627, Fax: (573) 526-5808
nrnicke@mail.dnr.state.mo.us

**Certified Mail ONLY**
Mr. Gene Nickel
Technical Assistance Program
Missouri Department of Natural Resources
1659 B East Elm Street
Jefferson City, MO 65101

**Montana**
Mr. Tom Ellerhoff
Montana Emergency Response Commission DEQ
Metcalf Building
1520 East 6th Avenue
Helena, MT 59620-0901
(406) 444-5263, Fax: (406) 444-4386
tellerhoff@mt.gov

**Nebraska**
Mr. Mike Mallory, Coordinator
State of Nebraska Department of Environmental Quality
P.O. Box 98922
Lincoln, NE 68509-8922
(402) 471-4251, Fax: (402) 471-2909
deq055@mail.deq.state.ne.us

**Certified Mail ONLY:**
Mr. Mike Mallory, Coordinator
State of Nebraska Department of Environmental Quality
1200 N Street, Suite 400
Lincoln, NE 68509

**Nevada**
Ms. Alene Coulson
c/o State Emergency Response Commission
555 Wright Way
Carson City, NV 89711-0925
(775) 687-4670 (ext. 3006), Fax: (775) 687-6396

**New Hampshire**
Mr. Leland Kimball
New Hampshire Office of Emergency Management Agency, Title III Program
State Office Park South
107 Pleasant Street
Concord, NH 03301
(603) 271-2231, Fax: (603) 225-7341
leek@nhoem.state.nh.us

**New Jersey**
Mr. Andrew Opperman
Department of Environmental Protection
EPCRA Section 313
Bureau of Chemical Release Information & Prevention
P.O. Box 405
Trenton, NJ 08625-0405
(609) 984-3219, Fax: (609) 633-7031
aopperma@dep.state.nj.us

**New Mexico**
Mr. Max Johnson, Coordinator
New Mexico Emergency Response Commission
Chemical Safety Office
Emergency Management Bureau
P.O. Box 1628
Santa Fe, NM 87504-1628
(505) 476-9620, Fax: (505) 476-9695
Mjohnson@DPS.state.nm.us

**Certified Mail ONLY**
Mr. Max Johnson, Coordinator
New Mexico Emergency Response Commission
Chemical Safety Office
Emergency Management Bureau
4491 Cerrillos Road
Santa Fe, NM 87505

**New York**
Mr. Sitansu Ghosh
New York State Department of Enviromental Conservation
Pollution Prevention Unit
50 Wolf Road, Room 298
Albany, NY 12233-8010
(518) 485-8472, Fax: (518) 457-2570
sbghosh@gw.dec.state.ny.us

**North Carolina**
Mr. Richard Berman
North Carolina Emergency Response Commission
North Carolina Division of Emergency Management
116 West Jones Street
Raleigh, NC 27603-1335
(919) 733-1361, Fax: (919) 733-2860
nc-sara@ncem.org

**North Dakota**
Mr. Robert W. Johnston
North Dakota State Division of Emergency Management
P.O. Box 5511
Bismarck, ND 58502-5511
(701) 328-2111, Fax: (701) 328-2119
bjhnsto@state.nd.us

**Certified Mail ONLY**
Mr. Robert W. Johnston
North Dakota State Division of Emergency Management
Fraine Barracks Road, Building 35
Bismarck, ND 58506-5511

**Ohio**
Ms. Cindy DeWulf
Ohio EPA
Lazarus Government Center
122 South Front Street
Columbus, OH 43215
(614) 644-3606, Fax: (614) 644-3681
cindy.dewulf@epa.state.oh.us

**Oklahoma**
Ms. Monty Elder
Department of Environmental Quality
Risk Communication
P.O. Box 1677
Oklahoma City, OK 73101-1677
(405) 702-6139 or (800) 869-1400, Fax: (405) 702-1001
monty.elder@deqmail.state.ok.us

**Oregon**
Mr. Bob Albers
Oregon Emergency Response Commission
Office of State Fire Marshall
4760 Portland Road, Northeast
Salem, OR 97305-1760
(503) 378-3473 (ext. 262), Fax: (503) 373-1825
bob.ALBERS@state.or.us

**Pennsylvania**
Mr. Thomas J. Ward, Jr.
Bureau of PennSafe
Labor and Industry Building
7th & Forster Streets, Room 1503
Harrisburg, PA 17120
(717) 783-2017, Fax: (717) 783-5099
pennsafe@dli.state.pa.us

**Pennsylvania**
Ms. Peg Forte
Bureau of PennSafe
PA Dept. Labor and Industry
1503 L & I Bldg.
7th & Forster Streets
Harrisburg, PA 17120
(717) 787-2450, Fax: (717) 783-5099
pforte@dli.state.pa.us

**Puerto Rico**
Mr. Genaro Torres
Director of Superfund and Emergencies
Title III-SARA Section 313
Environmental Quality Board
Ferrnadez Junco Station
P.O. Box 11488
Santurce, PR 00910
(787) 766-2823, Fax: (787) 766-0150

**Certified Mail ONLY**
Mr. Genaro Toress
Director of Superfund and Emergencies
Environmental Quality Board
Emergency Response and Remedial Office
National Plaza #431
Ponce de Leon Avenue
Hato Rey, PR 00917

**Rhode Island**
Ms. Karen Slattery
RI Department of Environmental Management
Division of Air Resources
235 Promenade Street, Suite 230
Providence, RI 02908-5767
Attn: Toxic Release Inventory
(401) 222-2808 (ext. 7030), Fax: (401) 222-2017
kslatter@dem.state.ri.us

**South Carolina**
Mr. Michael Juras
Community Right-to-Know
Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201
(803) 898-4385, Fax: (803) 898-4117
jurasms@columb31.dhec.state.sc.us

**South Dakota**
Ms. Lee Ann Smith, TRI Coordinator
South Dakota Department of Environment and
Natural Resources
523 East Capitol
Pierre, SD 57501-3181
(605) 773-3296, Fax: (605) 773-6035
leeanns@denr.state.sd.us

**Tennessee**
Ms. Betty Eaves, Administrator
Tennessee Emergency Response Council
Tennessee Emergency Management Agency
3041 Sidco Drive
Nashville, TN 37204
(615) 741-2986, Fax: (615) 242-9635

**Texas**
**U.S. Postal Service Delivery including Certified Mail**
Ms. Becky Kurka
TRI Program, MC 164
Texas Natural Resource Conservation Commission
P.O. Box 13087
Austin, TX 78711-3087
(512) 239-4TRI (4874), Fax: (512) 239-1515
bkurka@tnrcc.state.tx.us

**Overnight Express Mail ONLY**
Ms. Becky Kurka
TRI Program, MC 164
Texas Natural Resources Conservation Commission
12100 Park 35 Circle, Building E (3rd Floor)
Austin, TX 78753

**Utah**
Mr. Neil Taylor
Division of Environ. Response and Remediation
168 North 1950 West
Salt Lake City, UT 84116
(801) 536-4102, Fax: (801) 536-4242
ntaylor@deq.state.ut.us

**Vermont**
Mr. Paul Van Hollebeke
VT Dept. of Environmental Conservation
Environmental Assistance Division
103 S. Main St.
Waterbury, VT 05671-0411
(802) 241-3629, Fax: (802) 241-3273
paulv@dec.anr.state.vt.us

**Virginia**
Ms. Dona Huang
Virginia Emergency Response Council
Virginia Dept. of Environmental Quality
SARA Title III Program
P.O. Box 10009
Richmond, VA 23240-0009
(804) 698-4489, Fax: (804) 698-4346
drhuang@deq.state.va.us

**Virgin Islands**
Mr. Hollis L. Griffin
Department of Planning and Natural Resources
Division of Environmental Protection
1118 Waterguthomes
Christianshead, St. Croix 00820-5965
St. Croix: (340) 773-0565, Fax: (340) 773-9310
St. Thomas: (340) 777-4577, Fax: (340) 774-5416
HLGrif12@viaccess.net

**Washington**
Ms. Idell Hansen
Department of Ecology, CRTK Unit
P.O. Box 47659
Olympia, WA 98504-7659
(360)407-6727 or (800) 633-7585, Fax: (360) 360-407-6715
ihan461@ecy.wa.gov

**Federal Express or UPS Mail ONLY**
Ms. Idell Hansen
Department of Ecology
Community Right-to-Know Unit
300 Desmond Drive
Lacey, WA 98503

**West Virginia**
Mr. John W. Pack, Jr.
West Virginia Emergency Response Commission
West Virginia Office of Emergency Services
Main Capital Building 1, Room EB-80
Charleston, WV 25305-0360
(304) 558-5380, Fax: (304) 344-4538

**West Virginia**
Ms. Jan Taylor
National Institute for Chemical Studies
2300 MacCorkle Ave., SE
Charleston, WV 25304
(304) 346-6264, Fax: (304)346-6349
taylornics@aol.com

**Wisconsin**
Ms. Erin Baggot, SS/6
Department of Natural Resources
101 South Webster
P.O. Box 7921
Madison, WI 53707
(608) 266-6043, Fax: (608) 267-5231
baggoe@dnr.state.wi.us

**Wyoming**
Mr. Bob Bezek
Hazardous Materials Planner
Wyoming ERC/EMA
Department of Environmental Quality
P.O. Box 1709
5500 Bishop Blvd.
Cheyenne, WY 82009-3302
(307) 777-4900, Fax: (307) 635-6017
hellerj@wy-iso.army.mil

Notes:
(1) If an Indian tribe has chosen to act independently of a state for the purpose of section 313 reporting, facilities located within the Indian community should report to the tribal SERC, or until the SERC is established, the Chief Executive Officer of the Indian tribe, as well as to EPA; (2) Facilities located within the Territories of the Pacific should send a report to the Chief Administrator of the appropriate territory, as well as to EPA.

# Appendix G. Section 313 Regional Contacts

## Region 1
Assistance and Pollution Prevention Office
USEPA Region 1 (SPT)
1 Congress Street, Suite 11000
Boston, MA 02114-2023
(617) 918-1829, Fax: (617) 918-1810
peavey.dwight@epa.gov
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

## Region 2
Pesticides and Toxic Substances Branch
USEPA Region 2 (MS-105)
2890 Woodbridge Avenue
Building 10
Edison, NJ 08837-3679
(732) 906-6890, Fax: (732) 321-6788
lopez.nora@epa.gov
New Jersey, New York, Puerto Rico, Virgin Islands

## Region 3
Toxics Programs and Enforcement Branch
USEPA Region 3 (3WC33)
1650 Arch Street
Philadelphia, PA 19103-2029
(215) 814-2072, Fax: (215) 814-3114
reilly.william@epa.gov
Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

## Region 4
EPCRA Enforcement Section
USEPA Region 4
Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, GA 30303
(404) 562-9191, Fax: (404) 562-9163
velez.ezequiel@epa.gov
Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

## Region 5
Pesticides and Toxics Branch
USEPA Region 5 (DT-8J)
77 West Jackson Boulevard
Chicago, IL 60604
(312) 886-6219, Fax: (312) 353-4788
codina.thelma@epa.gov
Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

## Region 6
Pesticides and Toxics Substances Branch
USEPA Region 6 (6PDT)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733
(214) 665-8013, Fax: (214) 665-6762
layne.warren@epa.gov
Arkansas, Louisiana, New Mexico, Oklahoma, Texas

## Region 7
Air, RCRA and Toxics Division
USEPA Region 7 (ARTD/CRIB)
901 North 5th Street
Kansas City, KS 66101
(913) 551-7472, Fax: (913) 551-7065
hirtz.james@epa.gov
Iowa, Kansas, Missouri, Nebraska

## Region 8
Office of Pollution Prevention, Pesticides and Toxics
USEPA Region 8 (8P-P3T)
999 18th Street, Suite 500
Denver, CO 80202
(303) 312-6447, Fax: (303) 312-6044
dhieux.joyel@epa.gov
Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

## Region 9
Toxics Section
USEPA Region 9 (CMD-4-2)
75 Hawthorne Street
San Francisco, CA 94105
(415) 744-1121, Fax: (415) 744-1073
browning.adam@epa.gov
Arizona, California, Hawaii, Nevada, American Samoa, Guam, Commonwealth of the Northern Mariana Islands

## Region 10
Office of Waste & Chemicals Management
USEPA Region 10 (WCM-128)
1200 Sixth Avenue
Seattle, WA 98101
(206) 553-4016, Fax: (206) 553-8509
colt.christina@epa.gov
Alaska, Idaho, Oregon, Washington

# Appendix H. Other Relevant Section 313 Materials

- **1996 Toxics Release Inventory Public Data Release State Fact Sheets** (EPA 745-F-98-001)

The fact sheets can be found on the Internet at http://www.epa.gov/tri. The fact sheets in this document summarize the basic 1996 Toxics Release Inventory (TRI) data for each state. This document is designed as a companion volume to EPA's 1996 Toxics Release Inventory Public Data Release (EPA 745-R-98-005), a more detailed examination of TRI data for 1995 and previous years.

- **1996 Toxics Release Inventory Public Data Release, Ten Years of Right-to-Know** (EPA 745-R-98-005)

This publication can be found on the Internet at http://www.epa.gov/tri. This document provides an overview of the information collected through TRI. It summarizes data collected for calendar year 1996. For comparison purposes, this report also provides basic data for the two preceding years (1994 and 1995), for the period since the Pollution Prevention Act mandated collection of waste management data (1991), and for the baseline year (1988). In addition to the usual analysis of TRI data on a national basis, the 1996 Public Data Release contains, for the first time, chapters that provide industry-specific analyses of TRI data. The new chapters cover the following industries: pulp and paper, petroleum, chemical manufacturing, primary metals, electronics, and federal facilities.

- **1996 Toxics Release Inventory Public Data Release — 10 Years of Right-to-Know: Industry Sector Analyses** (EPA 745-R-98-018)

This publication can be found on the Internet at http://www.epa.gov/tri. This publication is a complement to the earlier sector chapters completed in the 1996 TRI Public Data Release. The document contains industry-specific analyses of the following industries: food and kindred products; tobacco products; textile mill products; apparel and other finished products made from fabrics and similar materials; lumber and wood products, except furniture; furniture and fixtures; printing, publishing, and allied industries; rubber and miscellaneous plastics products; leather and leather roducts; stone, clay, glass, and concrete products; fabricated metal products; industrial and commercial machinery and computer equipment; transportation equipment; measuring, analyzing, and controlling instruments; and miscellaneous manufacturing industries.

- **Similar reports for 1987–1995 are available for sale from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20420-9325 (202-512-1800).**

- **Toxic Release Inventory — On-line Database**

The TRI home page (http://www.epa.gov/tri) offers information useful to both novice and experienced users of the toxics community. It provides, in lay terms, a description of what TRI is, how it can be used, a discussion of TRI and health issues, and much more. You can find out about TRI products, view or download the 1996 TRI data release reports, and identify who to contact for more information in EPA regions and state programs across the country. From the TRI home page, you can "link" to other EPA and non-EPA sites that allow you to search the TRI database online.

Another EPA Website, the Envirofacts Warehouse (http://www.epa.gov/enviro) provides free access to five of EPA's largest databases containing Superfund data, Safe Drinking Water information, Hazardous Waste information, Water Discharge permits, Air Releases, and TRI information. The user can read about EPA's databases, generate reports, and produce maps showing the location of TRI and other facilities. Envirofacts allows the user to search the TRI and other databases by facility name, geographic location, SIC code, or chemical name and to produce reports on the facilities and map their locations. A variety of user-specified parameters let users point and click to customize their searches. The maps include facility locations as well as user defined demographic information, schools, hospitals, roads, bodies of water, and more. Maps can be printed out or saved in various formats including GIF, JPG, TIF, PDF, EPS, ARC/INFO and more. TRI is specifically addressed through Envirofact's TRI page (http://www.epa.gov/enviro/html/tris/tris_overview.html).

A computerized on-line database of the Toxic Release Inventory data is also available through the National Library of Medicine's (NLM) TOXNET on-line system at http://toxnet.nlm.nih.gov. Other NLM files on TOXNET can provide supporting information in such areas as health hazards and emergency handling of toxic

chemicals. Information on accessing the TOXNET system is available from: TRI Representative, Specialized Information Services, National Library of Medicine, 8600 Rockville Pike, Bethesda, MD 20894 (301) 496-6531.

RTK-Net (http://www.rtk.net) is an online network concerned with environmental issues, in particular, matters arising from the passage of right-to-know provisions embodied in EPCRA legislation. RTK-net was established by two non-profit organizations (Unison (Unison Institute and OMB Watch) to provide access to TRI, link TRI with other environmental data, and exchange information among public interest groups. RTK-Net is a full-service center providing free dial-in access privileges to complete database services, training and technical support, e-mail and electronic conferences pertaining to issues such as health, activism, and environmental justice. For more information contact RTK-Net, 1742, Connecticut Ave., NW, Washington, DC 20009-1146 or phone 202-797-7200. You can register on-line by modem at 202-234-8570, parameters 8,n,1, and log in as "public".

❑ **Toxics Release Inventory — CD-ROM**

The TRI CD-ROM contains the complete Toxic Release Inventory since 1987, as well as Chemical Factsheets containing health and environmental effects information for TRI chemicals. User-friendly software provides the capability to search data by facility, location, chemical, SIC code, and many other access points. Other features allow flexibility in printing standard and custom reports, data downloading, and calculating releases for search sets (for example, calculate average air releases for all pulp and paper manufacturers). To make TRI information widely available for public use, the TRI CD-ROM is distributed free of charge to non-profit organizations, citizen groups, educators and government agencies through NCEPI. The same CD is available for purchase from GPO and NTIS. You may order the TRI CD-ROM from EPA's web page at http://www.epa.gov/tri or contact one of the agencies listed below:

NSCEP:
National Service Center for Environmental Publications
P.O. Box 42419
Cincinnati, OH 45242
Phone: (800) 490-9198

GPO:
U.S. Government Printing Office
Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954
Phone: (202) 512-1800

NTIS:
National Technical Information Service (NTIS)
U.S. Department of Commerce
5285 Port Royal Road
Springfield, VA 22161
Phone: (800) 553-6847

❑ **Toxic Release Inventory (by State) — Diskettes**

Diskettes containing frequently used data elements from TRI are available dBase and Lotus formats. Accompanying documentation describes section 313 reporting requirements, and instructions for loading into dBase and lotus software. Dbase and Lotus software are not included. Diskettes from GPO and NTIS are the same, although the pricing formula differs between agencies. Prices and order numbers shown are for the 1996 disks. Earlier years are also available. The 1996 data can be downloaded for free in dBase format from EPA's website at http://www.epa.gov/tri or ordered on disk from:

GPO:
U.S. Government Printing Office
Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954
Phone: (202) 512-1800
Individual state (one disk per state): 3.50" disk — $15/disk

NTIS:
National Technical Information Service (NTIS)
U.S. Department of Commerce
5285 Port Royal Road
Springfield, VA 22161
Phone: (800) 553-6847
Lotus & dBase formats.
1987 to 1992 Data available.
Contact NTIS for price quote.

❑ **Consolidated List of Chemicals Subject to Reporting Under the Act** (Title III List of Lists), (November 1998)
http://www.epa.gov/ceppo/pubs/title3.pdf

Available as an IBM compatible disk from: The National Technical Information Service, 5285 Port Royal Road, Springfield, VA22161, (703) 605-6000, Document Number: PB98-500473, $69.00.

❑ **The Toxic Release Inventory: Meeting the Challenge (April 1988)**

This 19 minute videotape explains the toxic release reporting requirements for plant facility managers and others. State governments, local Chambers of Commerce, labor organizations, public interest groups, universities, and others may also find the video program useful and informative.

3/4 inch = $30.75; VHS = $22.00.

To purchase, write or call:

Color Film Corporation
Video Division
770 Connecticut Avenue
Norwalk, CT 06854
(800) 882-1120

❑ **Chemicals in Your Community, A Citizen's Guide to the Emergency Planning and Community Right-to-Know Act,** September 1988 (OSWER-88-002)

This booklet is intended to provide a general overview of the EPCRA requirements and benefits for all audiences. Part I of the booklet describes the provisions of EPCRA and Part II describes more fully the authorities and responsibilities of groups of people affected by the law. Available through written request at no charge from:

Emergency Planning and Community Right-To-Know Information Hotline
401 M Street, SW (5101)
Washington, DC 20460
1 (800) 424-9346

❑ **Chemicals in the Environment**

Issue number 6 of Chemicals in the Environment (CIE), published in the Fall of 1997, is devoted entirely to TRI. This 22 page publication contains 19 articles ranging from the history of TRI to the future of new TRI products. Articles include perspectives from the community, State, Federal, and International level. The publication also provides valuable information on training and contacts within the EPA. CIE is available free over the Internet (http://www.epa.gov/opptintr/cie) or from NCEPI by asking for publication EPA749-R-97- 001b. To request copies, contact:

National Service Center for Environmental Publications
P.O. Box 42419
Cincinnati, OH 45242-2419
(800) 490-9198

**POLLUTION PREVENTION INFORMATION**

❑ **Environ$en$e**

An up-to-date source of information on pollution prevention is the Enviro$en$e System, a computerized information network. Enviro$en$e includes a directory of representatives from Federal, State, and local governments; current news on pollution prevention activities; program summaries for government agencies, public and industry; a data base of industry case studies; a calendar of conferences, training seminars, and workshops; and specialized bulletin boards dedicated to various topics. Enviro$en$e can be accessed in two ways:

1) Bulletin board-modem:
(703) 908-2092, Parameters: 8,n1 settings: ansi or v+100 user support: (703) 908-2007.

2) World Wide Web-internet:
http://www.epa.gov/envirosense under heading "EPA $P_2$ and other initiatives"

❑ **The Pollution Prevention Information Clearinghouse (PPIC)**

PPIC was established as part of EPA's response to the Pollution Prevention Act of 1990, which directed theAgency to compile information, including a database, on management, technical, and operational approaches to source reduction. PPIC provides information to the public and industries involved in conservation of natural resources and in reduction or elimination of pollutants in facilities, workplaces, and communities.

To request EPA information on pollution prevention or obtain factsheets on pollution prevention from various state programs call the PPIC reference and referral service at (202) 260-1023, or fax a request to (202) 260-0178, or write to:

PPIC
Mail Code 3404
401 M St., SW
Washington, DC 20460

**United States**
**Environmental Protection Agency**
**(2844)**
**Washington, DC 20460**

Official Business
Penalty for Private Use
$300

METCO DIVISION PERKIN-ELMER
DUFFY AVENUE
ENVIRONMENTAL ISSUES

Water Pollution Control -

Waste water from a sink in the machine shop appears to discharge into a dry well through a grease trap and neutralization tank. Chronic acid etching solution and oils are handled in this area. Staining in the sink indicated these chemicals may be discharged to the dry well. All sinks in process area should be connected to the sanitary sewer. Waste oils and acids should be disposed of and managed as hazardous waste.

Our investigation of the waste lines revealed that the sink discharges to the storm water drain lines and then into the sump. Currently establishing an employee training program to include hazardous materials handling.

Air Pollution Control -

Emission points discharge VOCs from two spray paint booths and an oven. Paint samples were collected by an NCHD inspector to verify compliance with VOC emissions standards.

An inspector from Nassau County Department of Health, Office of Industrial Facility Regulation, collected paint samples on March 26, 1990. Paints currently in use at facility are water base. An inventory of the air emission points is maintained.

Hazardous Waste Management -

Hazardous waste containers are not labeled or sealed at the point of generation to prevent mixing of incompatible waste and improper disposal. Secondary containment, to prevent spills from reaching a nearby storm drain, is not present in the centralized drum storage area located at the loading dock. Hazardous wastes shipped offsite (October 1989 and April 1989) exceeded the 1000 kg limit for small quantity generators.

An inspector from Nassau County Department of Health office of Industrial and Hazardous Wastes Management toured the facility. Concerning secondary containment, obtaining absorbent material would surfice. The requirement of containers being labeled, dated and sealed is in the process of being addressed. We are in the process of setting up a waste monitoring system which will include weekly inspections of storage areas.

Hazardous Waste Management -

Waste degreasing solvent and waste rags are not properly classified. Rags contaminated with a hazardous waste must be disposed of as hazardous waste.

A waste container will be put into the waste accumulation area soley for the purpose of collecting contaminated rags.

Hazardous Waste Management -

Metco is not in compliance with the provisions of The Nassau County Health Department (NCHD) Hazardous Waste Ordinance:

Central storage areas do not have containment.

Containers in storage are not labeled with DOT designations.

Training is not provided to workers or supervisors involved in hazardous mateials handling practices.

Annual reports have not been submitted to NCHD.

Secondary containment, employee training, proper labeling and annual reports are currently being addressed.

Past Disposal Storage/Practices -

Facility industrial wastes were discharged to a septic system. This system was abandoned in 1986 without documentation on the impacts of discharging industrial wastes to the environment.

A storm water basin receives water from the facility cooling system. The source of this water is an onsite contaminated process well. The well was sampled by NYDEC and shown to be contaminated with volatile organics. The source of this contamination has not been documented.

Underground storage tanks were removed without documentation on the potential impact to soil and ground water.

The underground storage tanks were removed from all three facilities under the guidance of a Nassau County Department of Health representative (1987).

Upon receiving proper approval, we can proceed with our environmental consultants and conduct an investigation covering past disposal/storage practices at our facilities.

Community Right To Know -

A (Tier II) chemical inventory was not submitted to the local fire department.

Reviewing and revising the distribution of reports for SARA Title III Community-Right-To-Know.

48-14-1 (3/89)—7f

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SUBSTANCES REGULATION

# HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please print or type. Do not Staple.

Form Approved. OMB No. 2050-0039. Expires 9-30-94

## UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: NYD131418651 — Manifest Document No.: 14294
2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address: METCO DIV OF PERKIN-ELMER, 325 DUFFY AVE, HICKSVILLE NY 11801
4. Generator's Phone (516) 334-1300

A. State Manifest Document No.: NY B 7014294
B. Generator's ID: SAME

5. Transporter 1 (Company Name): CHEMICAL WASTE MANAGEMENT, INC.
6. US EPA ID Number: [illegible]
C. State Transporter's ID: TRANSPORT
D. Transporter's Phone ( ) [illegible]

7. Transporter 2 (Company Name):
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone ( )

9. Designated Facility Name and Site Address: CWM CHEMICAL SERVICES, INC., 1550 BALMER RD., MODEL CITY NY 14107
10. US EPA ID Number: NYD049836679
G. State Facility's ID:
H. Facility's Phone: (716) 754-8231

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|
| a. NA, POLYCHLORINATED DIPHENYLS MIXTURE, 9, UN2315, II | 032 | DM | 25000 | P | EPA / STATE |
| b. | | | | | EPA / STATE |
| c. | | | | | EPA / STATE |
| d. | | | | | EPA / STATE |

J. Additional Descriptions for Materials listed Above: WATER, 30-45%; SOIL, 30-50%; CONCRETE CHUNKS, 5-10%; S
a. c.
b. d.

K. Handling Codes for Wastes Listed Above: a. c. b. d.

15. Special Handling Instructions and Additional Information: CWM Emergency Response Information (800) 765-8713 PROFILE# [illegible] ERG #31 8141316

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.

If I am a large quantity generator, I certify that I have program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small generator, I have made a good faith effort to minimize my waste and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Bill Bouchard — Signature: [signature] — Mo. Day Year: 08 29 94

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: Luke Patterson — Signature: [signature] — Mo. Day Year: 08 29 94

18. Transporter 2 (Acknowledgement or Receipt of Materials)
Printed/Typed Name: — Signature: — Mo. Day Year:

19. Discrepancy Indication Space: Item K [E] Items 13 & 14 should be 11340K

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Dan Pietraszewski — Signature: [signature] — Mo. Day Year: 08 31 94

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the N.Y. Dept. of Environmental Conservation (518) 457-7362.

NY B 7014294

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

COPY 5—Generator—mailed by TSD facility

P2SUL005807

48-14-1 (3/89)—71

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SUBSTANCES REGULATION

# HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please print or type. Do not Staple.

Form Approved. OMB No. 2050-0039. Expires 9-30-94

CNJT

| UNIFORM HAZARDOUS WASTE MANIFEST | 1. Generator's US EPA No. NYD131318651 | Manifest Document No. 14294 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal Law. |
|---|---|---|---|---|

3. Generator's Name and Mailing Address
METCO DIV OF PERKIN-ELMER
325 DUFFY AVE
HICKSVILLE NY 11801

4. Generator's Phone: 516 334-1300

A. State Manifest Document No. NY B 7014294

B. Generator's ID: SAME

5. Transporter 1 (Company Name): CHEMICAL WASTE MANAGEMENT, INC.

6. US EPA ID Number: ILD099202681

C. State Transporter's ID: TARKHUNT

D. Transporter's Phone (201) 465-2121

7. Transporter 2 (Company Name)

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
CWM CHEMICAL SERVICES, INC.
1550 BALMER RD.
MODEL CITY NY 14107

10. US EPA ID Number: NYD049836679

G. State Facility's ID

H. Facility's Phone (716) 754-8231

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|
| a. RQ, POLYCHLORINATED BIPHENYLS MIXTURE, 9,UN2315,II | 032 | DM | 25000 | P | EPA B003 |
| b. | | | | | EPA / STATE |
| c. | | | | | EPA / STATE |
| d. | | | | | EPA / STATE |

J. Additional Descriptions for Materials listed Above
WATER,30-45%,L;SOIL,30-50%;CONCRETE CHUNKS,5-10%;S

K. Handling Codes for Wastes Listed Above
a. c.
b. d.

15. Special Handling Instructions and Additional Information
CWM Emergency Response Information (800)765-8713
PROFILE# BR0208 ERG #31

SR# 143540

81419316

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.

If I am a large quantity generator, I certify that I have program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. If I am a small generator, I have made a good faith effort to minimize my waste and select the best waste management method that is available to me and that I can afford.

| Printed/Typed Name | Signature | Mo. Day Year |
|---|---|---|
| Bill Bouchard | B. Bouchard | 08 29 94 |

17. Transporter 1 (Acknowledgment of Receipt of Materials)

| Printed/Typed Name | Signature | Mo. Day Year |
|---|---|---|
| Luke Patterson | Luke Patterson | 08 29 94 |

18. Transporter 2 (Acknowledgment of Receipt of Materials)

| Printed/Typed Name | Signature | Mo. Day Year |
|---|---|---|
| 5-29-94 | | |

19. Discrepancy Indication Space
Item K - B

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

| Printed/Typed Name | Signature | Mo. Day Year |
|---|---|---|
| Dm Pietraszewski | Dm Pietraszewski | 08 31 94 |

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the N.Y. Dept. of Environmental Conservation (518) 457-7362.

P2SUL005808

48-14-1 (3/89)—7f

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
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**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA No. / Manifest Document No.

2. Page 1 of

Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document No. NY B 7014294

B. Generator's ID

5. Transporter 1 (Company Name)

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone ( )

7. Transporter 2 (Company Name)

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address

10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone ( )

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|
| a. | | | | | EPA / STATE |
| b. | | | | | EPA / STATE |
| c. | | | | | EPA / STATE |
| d. | | | | | EPA / STATE |

J. Additional Descriptions for Materials listed Above

a. c.

b. d.

K. Handling Codes for Wastes Listed Above

a. c.

b. d.

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.

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GENERATOR

Printed/Typed Name | Signature | Mo. Day Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name | Signature | Mo. Day Year

18. Transporter 2 (Acknowledgement or Receipt of Materials)

Printed/Typed Name | Signature | Mo. Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | Mo. Day Year

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

COPY 8—Copy to be retained by generator

NY B 7014294

CWM NEW JERSEY - TRANS.
41-85 Doremus Ave
Newark, NJ 07105-4716

Trip Ticket: 000090597 RUN: 0089483 PAGE: 1
Requested by: WM0336DDF
Requested On: 08/26/94
NJT

Driver (1):
Driver (2): LUKE 1745/4721

Load/Unload:

| Generator Information: | Manifest Document Number(s) NYD70[illegible]94 |
|---|---|
| US EPA ID No. NYD057731663 | |
| METCO INC | State EPA ID No. NO STATE EPA |
| 325 DUFFY AVENUE | |
| HICKSVILLE, NY 11801 | Phone: (516) 334-1300 |
| Pickup: 08/29/94 10:00 | |
| 24 HR EMERGENCY AND SPILL ASSISTANCE NUMBERS: | ( ) - |

| Transporter Information: | US EPA ID No. ILD099202681 |
|---|---|
| CHEMICAL WASTE MGMT INC 2 | |
| 41-85 DOREMUS AVE | State EPA ID No. NO STATE EPA |
| NEWARK, NJ 07105 | |
| | Phone: (201) 465-2121 |

| Designated Facility Information | US EPA ID No. NYD049836679 |
|---|---|
| CHEMICAL WASTE MGMT INC | |
| 1550 BALMER RD | State EPA ID No. NO STATE EPA |
| MODEL CITY, NY 14107-0200 | |
| DISP: 08/31/94 07:00 SC: PSID | Phone: (716) 754-8231 |

US DOT Information: Service Request No.: 0143540 Activity No. 001
Master Service Request No.: 0057291 UN/NA: UN2315 Pkg Grp: II
PROFILE BR0208 PCB contaminated soil/concrete Hazard class: 9 [illegible]
DOT Proper Shipping Name: P.O.#: DOUG SHRIMPFKI
RQ, POLYCHLORINATED BIPHENYLS MIXTURE
Customer Contact: DOUG SCRIMPF (516) 253-0900 EXT: 0000

| Containers No. | Type | Total Quantity | UWV | DESCRIPTION | Waste Codes |
|---|---|---|---|---|---|
| 0032 | DM | 0 | | | |
| | | | (Shipped) | | |

LOADING DEMURRAGE
DEPART DATE/TIME 8-29-94

ADDITIONAL CUSTOMER/SITE

UNLOADING DEMURRAGE
DEPART DATE/TIME

| Time Summary | Requirements | Time Summary |
|---|---|---|
| Start 12 | Box In # | Start |
| End 1 | Box Out # | End |
| | Wash Yes / No | |
| Total | Bring | Total |
| | Liner 0/1/2/3 | |

ARRIVAL DATE/TIME 8-29-94

ARRIVAL DATE/TIME

LOAD/UNLOAD COMMENTS

ADDITIONAL COMMENTS/REMARKS:

Shipper Signature ___/___/___ Date

Transportation Signature 8/28/94 Date

Receiving Signature ___/___/___ Date

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
NEW YORK STATE
DEPT OF ENVIRONMENTAL CONSERVATION
DIV HAZARDOUS SUBSTANCES REG.
PO BOX 12820
ALBANY NY 12212

4a. Article Number
Z 024 624 068

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

PS Form **3811**, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Z 024 624 068

**Receipt for Certified Mail**
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to
NEW YORK STATE DEPT
ENVIRONMENTAL CONSERVATION
Street and No.
PO BOX 12820
P.O. State and ZIP Code
ALBANY NY 12212

| | |
|---|---|
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, and Address of Delivery | |
| TOTAL Postage & Fees | $ |
| Postmark or Date | |

PS Form **3800**, March 1993

Fold at line over top of envelope to the right of the return address

**CERTIFIED**

**MAIL**

Z 024 624 068

# METCO PERKIN ELMER

Material Safety Data Sheet

METCO PERKIN-ELMER
1101 PROSPECT AVENUE
P.O. BOX 1006
WESTBURY, NEW YORK 11590-0201
516-334-1300
EMERGENCY CONTACT CHEMTREC 800-424-9300
CALLS FROM OUTSIDE THE US 202-483-7616

**Product:** METCO SPRASTEEL 10, 25 & 80 WIRE

**MSDS No:** METCO / 50-226
**Revision:** 1a
**Date:** August 15, 1989

## SECTION I. MATERIAL IDENTIFICATION

**Trade/Material Name:** METCO SPRASTEEL 10, 25 & 80 WIRE

**Description:** Thermal Spray Metallic Wire

**Other Designations:** CARBON STEEL WIRE

Date of Issue: September 7, 1987

## SECTION II. INGREDIENTS AND HAZARDS

| Ingredient Name: | CAS Number: | Percent: | Exposure Limits: |
|---|---|---|---|
| Carbon (Graphite) | 7782-42-5 | | OSHA PEL: 2.5 mg/m$^3$ (Respirable)<br>ACGIH TLV: 2.5 mg/m$^3$ (Respirable) |
| Iron ($Fe_2O_3$) | 1309-37-1 | | OSHA PEL: 10 mg/m$^3$<br>ACGIH TLV: 5 mg/m$^3$ |

## SECTION III. PHYSICAL DATA

**Appearance & Odor:** Wire; No Odor.

**Boiling point:** N/A
**Vapor pressure:** N/A
**Water solubility (%):** Neg.
**Vapor density (air=1):** N/A
**pH:** N/A

**Evaporation rate:** N/A
**Specific gravity ($H_2O$=1):** 7.8
**Melting point:** 2800-2850
**% volatile by volume:** N/A
**Molecular weight:** N/A

## SECTION IV. FIRE AND EXPLOSION DATA

**Flash Point (method):** None **Limits: LEL %:** N/A **UEL %:** N/A

**Extinguishing Media:** Use Class D Fire Extinguisher.

**Unusual fire or explosion hazards:** Moderate fire hazard in the form of dust when exposed to flame.

**Special fire-fighting procedures:** Treat as a metallic fire.

# METCO PERKIN ELMER

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## SECTION V. REACTIVITY DATA

Material is stable Hazardous polymerization will not occur

**Chemical incompatibilities:** Oxidizers

**Hazardous decomposition Products:** Ozone and nitric oxide are formed by plasma flame (independent of powder).

## SECTION VI. HEALTH HAZARD INFORMATION

**Summary of risks:**

CARBON (Graphite): Powder elemental Carbon is mainly a nuisance dust and slightly irritant in the form of graphite (one of the common forms of carbon); it can cause a dust irritation, particularly to the eyes. Carbon also occurs in the form of soot, carbon black. It can cause conjunctivitis epithelia hyperplasia of cornea as well as eczematous inflammation of eyelids. Some forms cause irritant of eyes and mucous membrane.

IRON: A poison by subcutaneous route. An experimental tumorigen and possible carcinogen. Benign pneumoconiosis; X-ray shadows indistinguishable from fibrotic pneumoconiosis.

**Medical conditions which may be aggravated by contact:** Consult a physician.

**Target organs:** Respiratory System, Cardiovascular System.

**Primary entry route(s):** Inhalation

**Signs & symptoms of overexposure:**

**Eye contact:** Possible irritation.

**Skin contact:** Possible dermatitis.

**Inhalation:** Respiratory irritation.

**Ingestion:** Possible irritation.

**First aid:**

**Eye contact:** Flush eye with sufficient amounts of water. If irritation persists, consult a physician.

**Skin contact:** If skin irritation occurs, wash with soap and water to remove material.

**Inhalation:** Expose to fresh air.

# METCO PERKIN ELMER

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CALLS FROM OUTSIDE THE US 202-483-7616

**Product:** METCO SPRASTEEL 10, 25 & 80 WIRE

**MSDS No:** METCO / 50-226
**Revision:** 1a
**Date:** August 15, 1989

HEALTH HAZARD INFORMATION continued from page 2

**Ingestion:** Consult a physician.

## SECTION VII. SPILL, LEAK AND DISPOSAL PROCEDURES

**Spill / Leak procedures:** Good housekeeping by wet mopping the area clean is necessary to remove these materials from becoming a source of air contamination.

**Waste management / Disposal:** Consult local, state and federal regulations.

## SECTION VIII. SPECIAL PROTECTION INFORMATION

**Personal protective equipment:**

**Goggles:** The following lens shades are recommended for the process indicated. Combustion spraying shade #5, arc spraying shade #9.

**Gloves:** Aluminized gloves are to be worn during arc spraying.

**Respirator:** A respirator approved by NIOSH for dust/fumes/mists should be worn at all times during the thermal spray process to protect operator from dust and fumes.

**Other:** Ear protection must be worn when the operator is subjected to excessive noise levels. (See OSHA Requirements.) Aluminized apron is to be worn during arc spraying.

**Workplace considerations:**

**Ventilation:** Ventilation equipment designed to create an air velocity of 200 FPM.

**Safety stations:**
Eye Wash Station is recommended.

**Other:** N/A

## SECTION IX. SPECIAL PRECAUTIONS

**Storage segregation:** Store away from incompatibles.

**Special handling / storage:** Cool and dry area.

**Other precautions:** Avoid oral ingestion and excessive skin contact. Eye protection is recommended when handling wire.

**Prepared/revised by:** METCO

# METCO PERKIN ELMER

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**Revision:** 1a
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SPECIAL PRECAUTIONS continued from page 3

August 15, 1989

THE INFORMATION CONTAINED HEREIN IS BASED ON AVAILABLE DATA AND TESTS AND IS BELIEVED TO BE ACCURATE. IT IS PREPARED SOLEY FOR YOUR CONSIDERATION AND VERIFICATION SINCE CONDITIONS OF USE, STORAGE AND HANDLING MAY VARY.

EPA United States Environmental Protection Agency

# FORM R

TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

WHERE TO SEND COMPLETED FORMS: 1. TRI Data Processing Center, P.O.Box 1513, Lantham, MD 20703-1513 2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR 2002

### SECTION 2. TRADE SECRET INFORMATION

2.1 Are you claiming the toxic chemical identified on page 2 trade secret?
[ ] Yes (Answer question 2.2; Attach substantiation forms) [X] NO (Do not answer 2.2; Go to Section 3)

2.2 Is this copy [ ] Sanitized [ ] Unsanitized (Answer only if "YES" in 2.1)

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data availble to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| CHARLES HAUGH VICE PRESIDENT | | 06/30/2003 |

### SECTION 4. FACILITY IDENTIFICATION

4.1 TRI Facility ID Number: 11590PRKNL1101P

Facility or Establishment Name: SULZER METCO (US), INC.

Facility or Establishment Name or Mailing Address (if different from street address):

Street: 1101 PROSPECT AVENUE

Mailing Addres: NA

City/County/State/Zip Code: WESTBURY NASSAU NY 11590

City/State/Zip Code:

Country (Non-US

4.2 This report contains information for: (Important: check a or b; check c or d if applicable) a. [X] An entire facility b. [ ] Part of a facility c. [ ] A Federal facility d. [ ] GOCO

| | | | |
|---|---|---|---|
| 4.3 | Technical Contact Name | PETER DIPIETRANTONIO | Telephone Number (include area code): (516) 338-2337 |
| | Email Address | peter.dipietrantonio@sulzer.com | |
| 4.4 | Public Contact Name | CHARLES HAUGH | Telephone Number (include area code): (516) 338-2249 |

| 4.5 SIC Code (s) (4 digits) | Primary | b. | c. | d. | e. | f. |
|---|---|---|---|---|---|---|
| | a. 3559 | | | | | |

| 4.6 | Latitude | Degrees | Minutes | Seconds | Longitude | Degrees | Minutes | Seconds |
|---|---|---|---|---|---|---|---|---|
| | | 40 | 45 | 50 | | 073 | 33 | 10 |

| 4.7 Dun & Bradstreet Number(s) (9 digits) | 4.8 EPA Identification Number (RCRA I.D. No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. 152084398 | a. NYD131318651 | a. NA | a. NA |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| 5.1 | Name of Parent Company | NA [ ] | SULZER US INDUSTRIES HOLDING INC. |
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | 001826957 |

# EPA FORM R
# PART II. CHEMICAL - SPECIFIC INFORMATION

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category or Generic Name |
| Copper |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440-50-8 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | Copper |
| 1.3 | Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.) |
| | NA |

**1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.**
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA | | | | | | | | | | | | | | | | |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |
| | NA |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | | 3.2 Process the toxic chemical: | | 3.3 Otherwise use the toxic chemical: | |
|---|---|---|---|---|---|
| a. | Produce b. Import | | | | |
| | If produce or import: | a. | As a reactant | a. | As a chemical processing aid |
| c. | For on-site use/processing | b. X | As a formulation component | b. | As a manufacturing aid |
| d. | For sale/distribution | c. | As an article component | c. | Ancillary or other use |
| e. | As a byproduct | d. | Repackaging | | |
| f. | As an impurity | e. | As an impurity | | |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 03 | (Enter two-digit code from instruction package.) |

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA | 0 | O | |
| 5.2 | Stack or point air emissions | NA X | | | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |

**If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box and indicate the Part II, Section 5.3 page number in this box.** (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Copper |

### SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release ( pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I Wells | X | | |
| 5.4.2 | Underground Injection onsite to Class II-V Wells | X | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA Subtitle C landfills | X | | |
| 5.5.1.B | Other landfills | X | | |
| 5.5.2 | Land treatment/application farming | X | | |
| 5.5.3 | Surface Impoundment | X | | |
| 5.5.4 | Other disposal | X | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.1.B. 1 | POTW Name | NA | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |
| 6.1.B. | POTW Name | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |

If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages

In this box [ ] and indicate the Part II, Section 6.1 page number in this box [ ] (example: 1,2,3, etc.)

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6.2. 1 | Off-Site EPA Identification Number (RCRA ID No.) | NA | | | | | | | |
| Off-Site Location Name | I. GANZ | | | | | | | | |
| Off-site Address | 96 WYTHE AVENUE | | | | | | | | |
| City | BROOKLYN | State | NY | County | KINGS | Zip | 11211 | Country (Non-US) | |
| Is location under control of reporting facility or parent company? | | | | | | | Yes | X | No |

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R
## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Copper |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 16145 | 1. M | 1. M24 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

**6.2. 2** Off-Site EPA Identification Number (RCRA ID No.) OHD000724153

| Off-Site location Name | Clean Harbors Environmental Services Inc. |
|---|---|
| Off-site Address | 2900 Rockefeller Avenue |

| City | Cleveland | State | OH | County | Cuyahoga | Zip | 45115 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 60 | 1. O | 1. M62 |
| 2. NA | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | | | | | | | | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7A.1a | 7A.1b | 1 | | 2 | | 3 | | 4 | 7A.1c | 7A.1d | 7A.1e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.2a | 7A.2b | 1 | | 2 | | 3 | | 4 | 7A.2c | 7A.2d | 7A.2e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.3a | 7A.3b | 1 | | 2 | | 3 | | 4 | 7A.3c | 7A.3d | 7A.3e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.4a | 7A.4b | 1 | | 2 | | 3 | | 4 | 7A.4c | 7A.4d | 7A.4e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |
| 7A.5a | 7A.5b | 1 | | 2 | | 3 | | 4 | 7A.5c | 7A.5d | 7A.5e |
| | 5 | | 6 | | 7 | | 8 | | | % | Yes No |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** [ ]
**and indicate the Part II, Section 6.2/7A page number in this box:** [ ] **(example: 1,2,3, etc.)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R
## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Copper |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

| | | |
|---|---|---|
| X | Not Applicable (NA) - | Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category. |

Energy Recovery Methods [enter 3-character code(s)]

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| | | | |

## SECTION 7C. ON-SITE RECYCLING PROCESSES

| | | |
|---|---|---|
| X | Not Applicable (NA) - | Check here if no on-site recyling is applied to any waste stream containing the toxic chemical or chemical category. |

Recycling Methods [enter 3-character code(s)]

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| | | | | |
| **6** | **7** | **8** | **9** | **10** |
| | | | | |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | Quantity released *** | 43 | 60 | 60 | 50 |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | 23900 | 16145 | 20000 | 20000 |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | | NA | |
| 8.9 | Production ratio or activity index | | | 0.82 | |

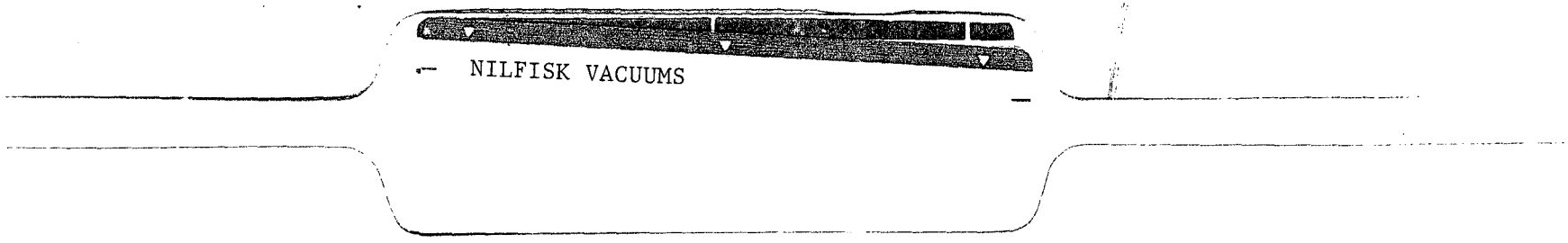
| | | | | |
|---|---|---|---|---|
| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | |
| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
| 8.10.1 | NA | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | Yes | No |
|---|---|---|---|
| 8.11 | Is additional information on source reduction, recycling, or pollution control activities included with this report ? (Check one Box) | | X |

EPA Form 9350-1 (Rev. 03/2003) - Previous editions are obsolete.

*For Dioxin or Dioxin-like compounds, report in grams/year

***Report releases pursuant to EPCRA Section 329 (8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated onsite.


NILFISK VACUUMS

# NILFISK FEATURES

**GS-Series Motors**
Exclusively Nilfisk: Long-lasting, powerful motors are standard. Built entirely by Nilfisk, these are the most refined industrial vacuum cleaner motors in the world. They are superior to anything else now available. For instance, Nilfisk carbon brushes outlast those in most ordinary industrial vacuums almost two to one. And every Nilfisk motor is dynamically balanced, extending its service life by preventing premature wear. Vibration-free performance, even at 19,000 rpm, keeps operating noise levels in the low 70 dB(A) range.

A patented thermo-valve prevents overheating caused by neglecting filters or by an accidental blockage in a nozzle or hose. It "whistles," telling the operator there's a potential problem somewhere.

All Nilfisk motors have the power to generate a cyclone within the vacuum cleaner. This centrifugal airflow forces collected debris directly down into the container or, in some models, a sealable plastic bag. This prevents the main filter from clogging quickly and assures that Nilfisk vacuums maintain maximum efficiency until almost full.

Exclusive Nilfisk thermistors diminish the amperage surge at start-up. Carbon brush life is extended and circuit breaker overloading is reduced. Built-in condensers eliminate static interference with sensitive electronic equipment.

Planned to the last detail, Nilfisk motors are supplied either grounded or double-insulated. On top of all this, Nilfisk stocks motor replacement parts for 20 years to assure quick repairs if necessary.

**Manometer**
The Nilfisk manometer, another exclusive: The optional manometer measures the pressure differential above and below the main filter and tells the operator at a glance whether the Nilfisk cleaner is operating at peak efficiency. It indicates when the vacuum cleaner is creating maximum airflow, when dust must be shaken from filters, and when the vacuum must be emptied. All this without opening the container and exposing the operator to collected dust or debris.

Along with assuring better vacuuming results, the Nilfisk manometer increases filter and motor life and keeps downtime to a minimum.

Nilfisk manometers are available for models GS 82, GS 83, and GB 733.

**External Filter Agitator Handle**
Another Nilfisk plus: the filter agitator. Shaking this external handle keeps the main filter inside the vacuum cleaner free of clogging dust. It maintains the vacuum's maximum suction and filtration efficiency, protects motors against superfine dust, prolongs filter life, and thus saves employees from exposure to collected toxic or hazardous dust.

Nilfisk filter agitators are standard on models GS 82, GS 83 and GB 733.

**HEPA and ULPA Filters**
Nilfisk HEPA filters (optional): Of all the fiberglass HEPA filter cartridges available, this is the easiest to remove intact, and change, without particulates escaping into the air—or getting on hands and clothes.

This critical filter in Nilfisk's graduated filtration system assures that 99.97% of all ultrafine particulates, toxic and nuisance, are captured. Down to and including 0.3 microns.

Nilfisk ULPA filters (optional): The laser tested ULPA filters have a retention efficiency of 99.9995% at 0.12 microns.

All Nilfisk HEPA and ULPA filters are individually DOP-tested and certified. They meet ANSI Z9.2-1971.

Nilfisk HEPA and ULPA filters available to fit most Nilfisk vacuum cleaners.

**Blower Attachment**
More Nilfisk versatility: blower attachments (optional). Special blower adapter replaces a motor's exhaust diffuser and converts the powerful vacuum motor into an equally powerful blower.

Blower adapters are available for Nilfisk models GS 80, GS 801, GS 81, GS 82 and GS 83.

**Sound Suppressor**
Nilfisk sound suppressors (optional): When exceptionally low noise levels are critical, Nilfisk sound suppressors quiet motors an additional 10 dB(A) to the even more silent low 60's range.

Most Nilfisk models can be equipped with sound suppressors, if no exhaust filter is required.

NILFISK

*Dust Collection Specialists Since 1910.*

NILFISK OF AMERICA, INC., 300 Technology Drive, Malvern, PA 19355, (215) 647-6420

Printed in USA
PS127 10/90

# NILFISK SPECIFICATIONS AT-A-GLANCE

| | | GS 80<br>GS 80I | GS 81 | GS 82 | GS 83 | GB 733 | Compact Vac | Mercury Vacuum | Mini-Merc |
|---|---|---|---|---|---|---|---|---|---|
| Capacity | | | | | | | | | |
| Tank | Gallons Dry Bulk | 3.25 | 5.25 | 12 | 18 | 18 | 1 | 5.25 | 3.25 |
| Disposable Bag* | Gallons Dry Bulk | 2.25 | 4 | 12 | 18 | 18 | 1 | 4 | 2.25 |
| Droplet Bottle/Bag** | Liters (Quarts) | -- | -- | -- | -- | -- | N/A | 1 (1.057) | 1.4 (1.5) |
| Waterlift | Inches | 75 | 75 | 75 | 59/75 | 59 | 75 | 75 | 75 |
| Air Flow | Cubic Feet/Minute | 87 | 87 | 191 | 208/244 | 180 | 87 | 87 | 87 |
| Energy Use | | | | | | | | | |
| Voltage | Volts | 115/220 | 115/220 | 115/220 | 115/220 | 208/220/440† | 115/220 | 115/220 | 115/220 |
| Current Draw | Amps | 7.8/3.9 | 7.8/3.9 | 12/8 | 14/12 | 9.1/8.6/4.3 | 7.8/3.9 | 7.8/3.9 | 7.8/3.9 |
| Watts Consumed | Watts | 700 | 700 | 1400 | 1500/2100 | 1900 | 700 | 700 | 700 |
| Filter Area | Square Inches†† | 1620 | 1744 | 3895 | 4703 | 4077 | 1294 | 326 | 940 |
| Dimensions | | | | | | | | | |
| Height, Alone | Inches | 16 | 19 | 30.5 | 43.2 | 49.4 | 21.8 | 45 | 26 |
| Width | Inches | 12 | 12.5 | 18.5 | 28.4 | 28.8 | 10.5 | 19.5 | 11.5 |
| Length | Inches | -- | 18.3 | 27.5 | 31.1 | 31.6 | N/A | 30 | 15 |
| Weight, Alone | Pounds | 13.2 | 23 | 65 | 123 | 163 | 18.3 | 87 | 46.5 |
| Sound Level*** | dB(A) | 67 | 67 | 70 | 72 | 79 | 67 | 67 | 67 |
| Motor Type, 115V (Number of Motors) | | GSD (1) | GSD (1) | GSD (2) | GSE (3) | -- | GSJF (1) | GSJF (1) | GSJF (1) |
| Motor Type, 220V (Number of Motors) | | GSJ (1) | GSJ (1) | GSJ (2) | GSJ (3) | 3$\phi$ (1) | GSJF (1) | GSJF (1) | GSJF (1) |
| Cooling | | Primary | Primary | Primary | Primary | Secondary | Primary | Primary | Primary |
| External Filter Agitator | | N/A | N/A | Standard | Standard | Standard | N/A | N/A | N/A |
| Option Availability | | | | | | | | | |
| HEPA Filter | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| ULPA Filter | | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Manometer | | No | No | Yes | Yes | Yes | No | No | No |
| Sound Suppressor | | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Blower Adapter | | Yes | Yes | Yes (220V only) | Yes (220V only) | Yes | Yes | Yes | Yes |
| Disposable Bags | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

**Special Notes:**

Power Cord Length: Model GS 80: 23 feet standard, 33 feet optional. Models GS 80I, 81, 82, 83, GB 733, Compact Vac, Mercury Vacuum and Mini-Merc: 33 feet standard.

Filter Types: Cotton Standard, Acid-resistant Fulda Optional, Gore-Tex® Optional

Accessories: More than 100 specialized hoses, wands and nozzles are available. Please ask for our special descriptive list.

Sound Suppressor: Reduces motor noise an additional 10 dB(A)

* Where disposable bag is used inside tank

** Pertains only to Nilfisk Mercury Vacuums

*** Sound level is measured at 6 feet from operator

† 3-phase power required

N/A Not Available

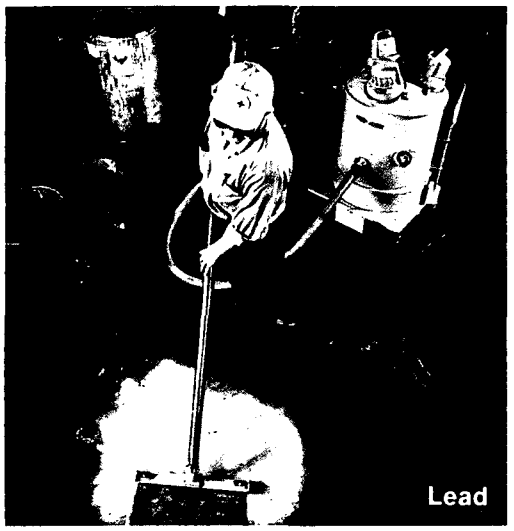
††Models GS 80, 80I, 81 and 82 include paper bag, main filter, microfilter(s), HEPA's. Model GS 83 includes main filter, microfilters, HEPA's. Model GB 733 includes main filter, HEPA. Compact Vac includes paper bag, microfilter, internal HEPA. Mercury Vacuum includes main filter only. Mini-Merc includes GORE-TEX® droplet collection bag, main filter, microfilter and internal HEPA wafer.

Since these product features are continually being improved, these specifications may change without notice.

GORE-TEX® is a registered trademark of W. L. Gore and Associates.

# Nilfisk simplifies the safe collection and disposal of toxic, hazardous, and nuisance waste materials.

Unique absolute filtering system meets or exceeds OSHA safety standards for control of such toxic materials as... lead, asbestos, silica, mercury, beryllium alloy, insect [illegible] cotton dust [illegible] health endangering [illegible]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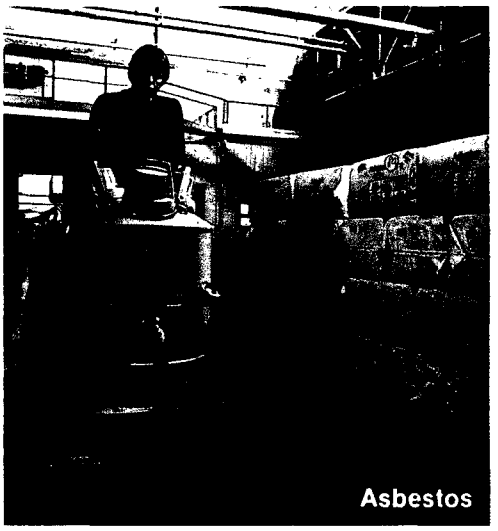
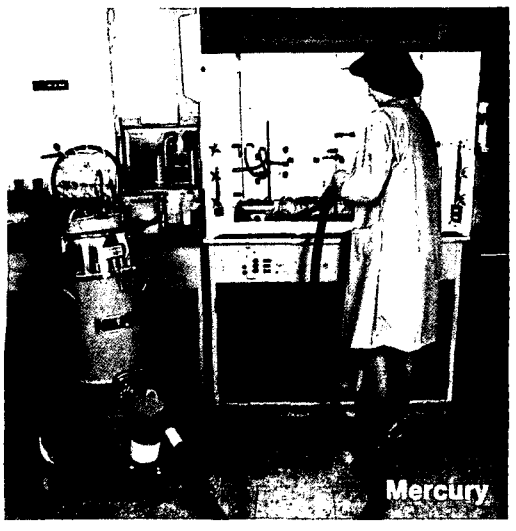
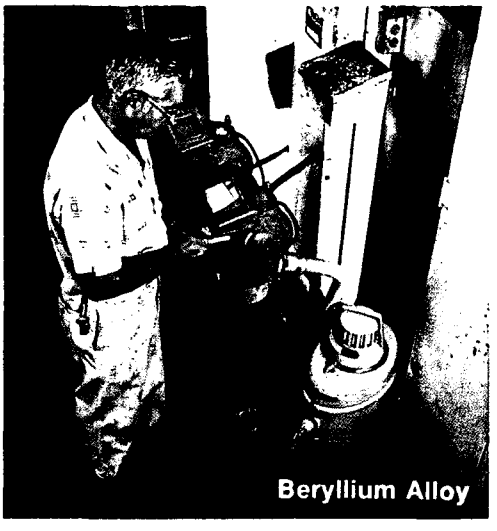
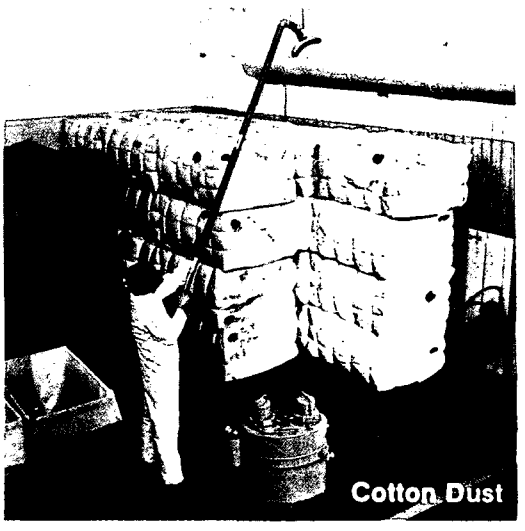

Asbestos

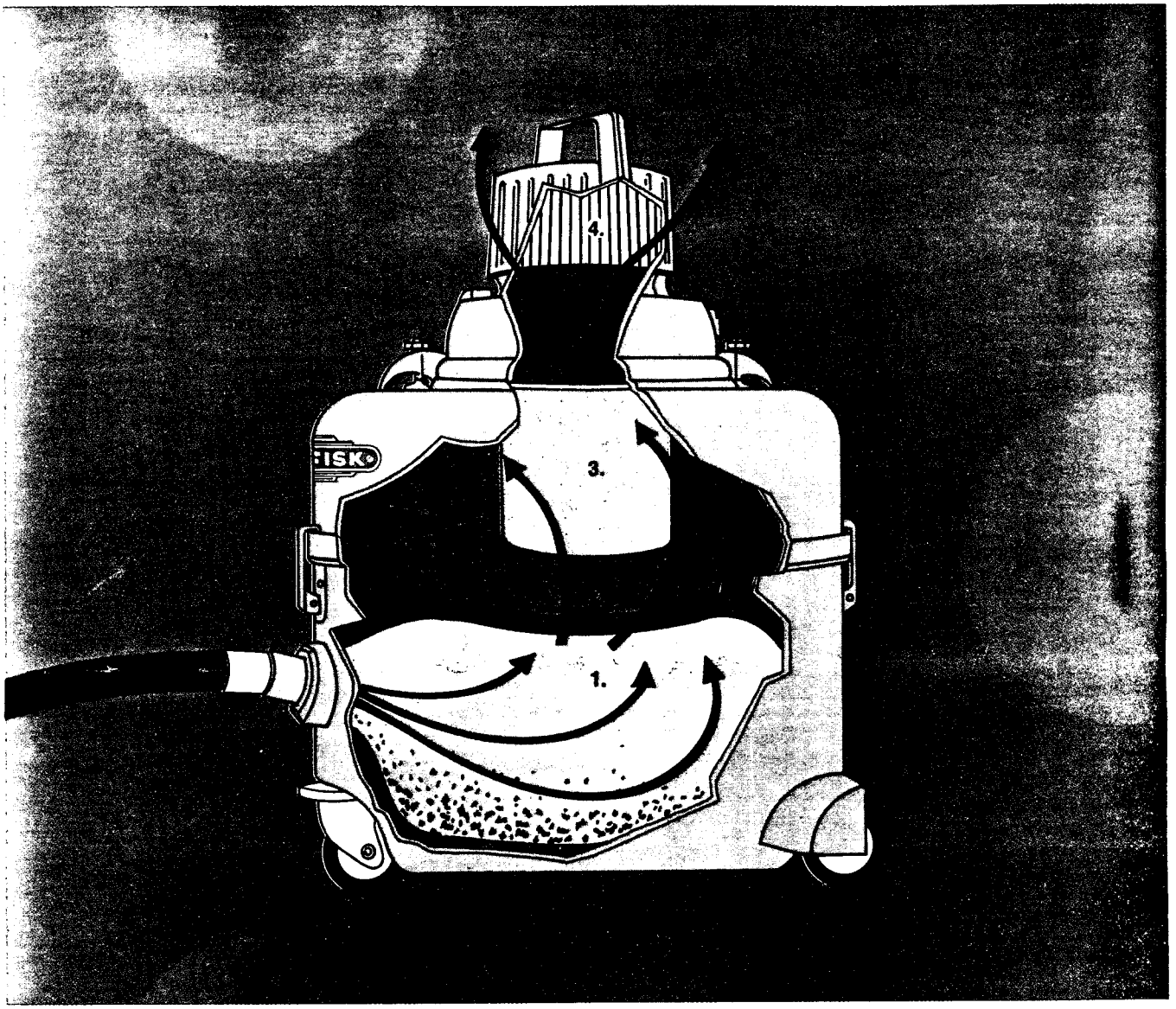
Silica


Mercury


Beryllium Alloy


Cotton Dust

# Nilfisk Filtering System traps toxic and hazardous dust with up to 99.9995% retention efficiency down to 0.12 microns.




Nilfisk portable dust collectors / industrial vacuums deliver this absolute filtration with minimal loss of suction and without the risk of motor burn-out. They trap even ultra-fine dusts and return "absolutely" clean air to the work environment. Here's how the absolute filtering system works:

**1. First Stage Separation —** The centrifugal or "cyclonic" airflow pattern of the cleaner aerodynamically separates heavier dust from collected fines.

**2. Main Filter —** Powerful suction coupled with extra-large filtering surfaces ensures a steady, even airflow which prolongs filter life and eliminates premature clogging. Optional manometer on larger models detects build-up of dust and alerts the operator to shake the main filter. Exclusive external handle allows the operator to purge the filter without the danger of secondary exposure to collected dust since the cleaner remains sealed.

**3. Microfilter —** Final pre-filtering protection for the motor is provided by a microfilter with a retention efficiency of 99.5% at 2 microns.

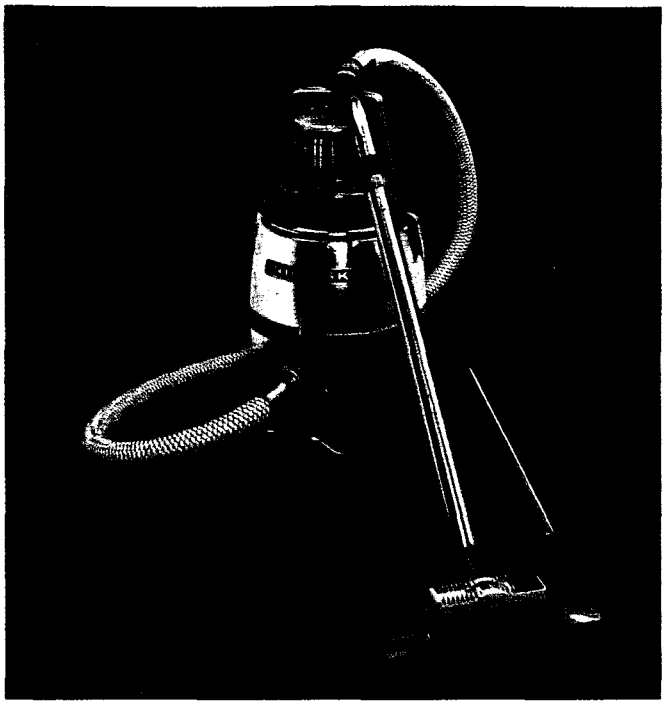
**4. "Absolute" Exhaust Filters—**Nilfisk High Efficiency Particulate Air (HEPA*) or Super HEPA (ULPA-Ultra Low Penetration Air) filters further increase retention efficiencies to absolute standards of up to 99.9995% at 0.12 microns. The dust is collected in sealable bags for safe disposal.

Nilfisk portable dust collectors have design advantages that make them ideal for the safe collection and disposal of toxic, hazardous, and nuisance waste materials in any work environment — from laboratories and clean rooms to manufacturing and processing facilities. These design advantages include:

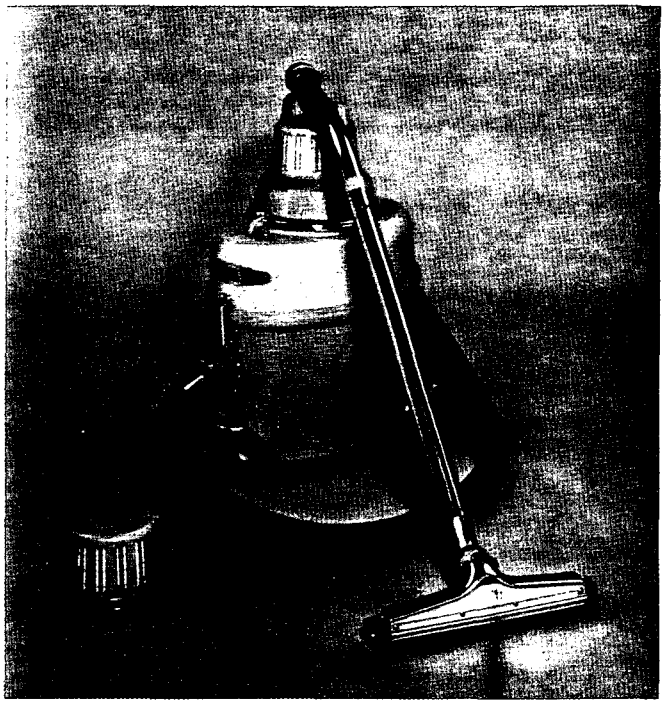
- clog resistance
- absolute filtering
- dust-free disposal
- powerful suction
- large recovery capacity
- low noise level



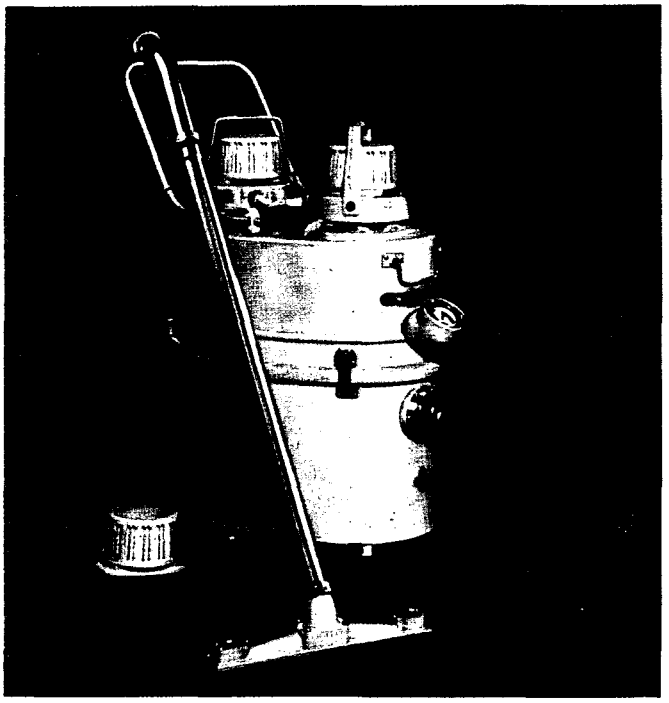
**Retention efficiency 99.97% at 0.3 microns or larger.*



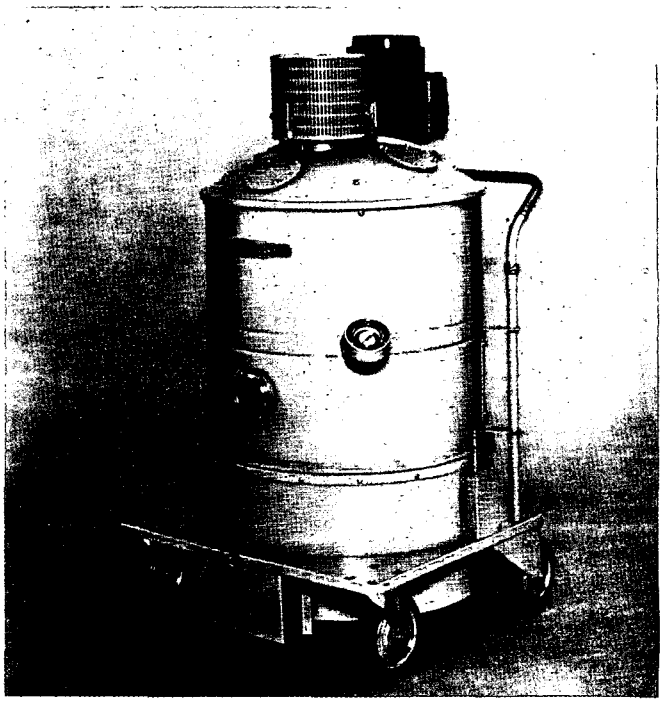
**Handy small-sized unit with big-power cleanup.** The GS 80 goes anywhere for fast, safe cleanup. Ideal for use at individual work stations. Has a disposable bag capacity of 2¼ gallons dry-bulk.



**Greater capacity with greater durability.** The GS 81 is a larger, heavy-duty unit that is easily maneuvered even where space is restricted. Has a disposable bag capacity of 4 gallons dry-bulk.

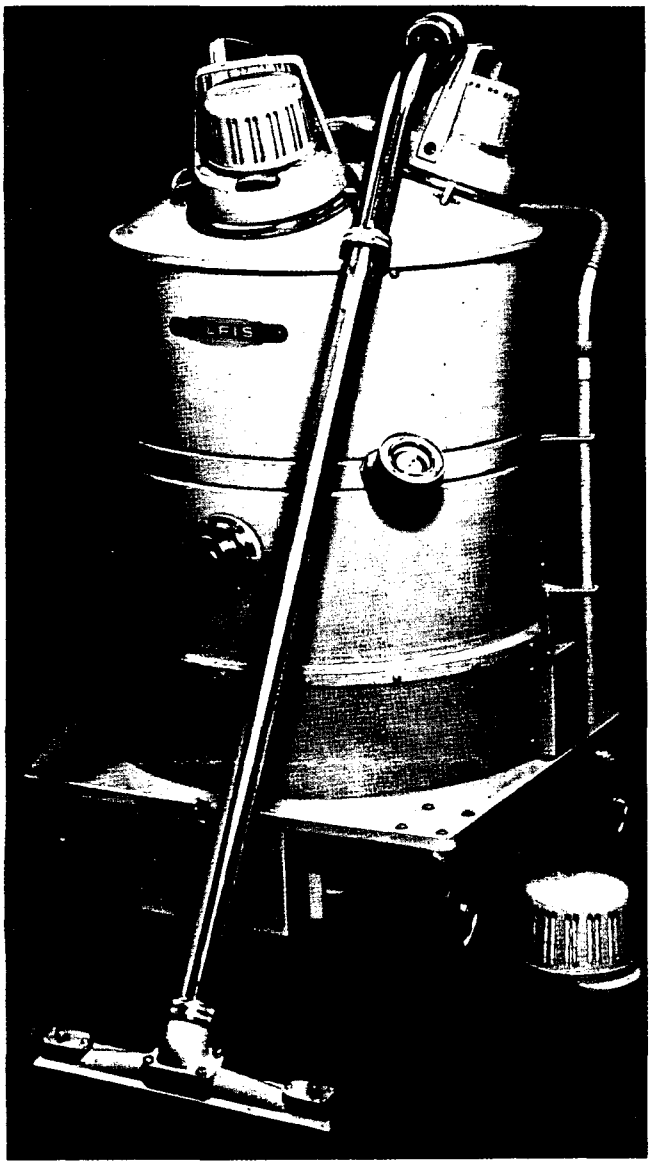


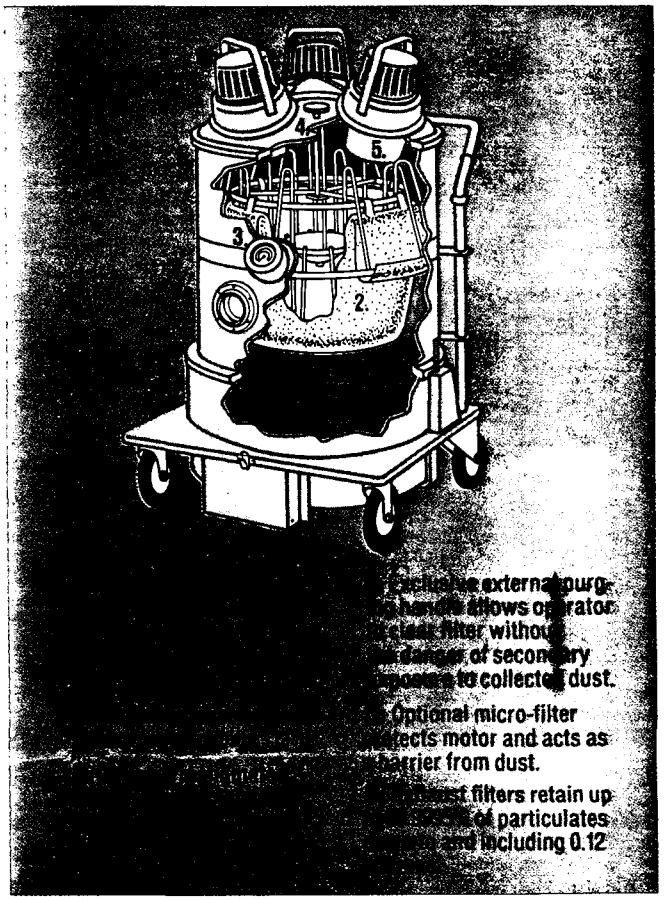
**Ruggedness and versatility in a medium-sized unit.** The GS 82 has the suction capacity to handle a wide range of tough cleanup assignments. Delivers a capacity of 12 gallons dry-bulk.



**Heavy-duty, performance.** The GB 733 has the power and capacity to handle any cleanup assignment. Three-phase induction motor permits continuous recovery of dusts in either built-in or mobile applications. Disposable bag capacity of 18 gallons dry-bulk.

# NILFISK
# GS 83



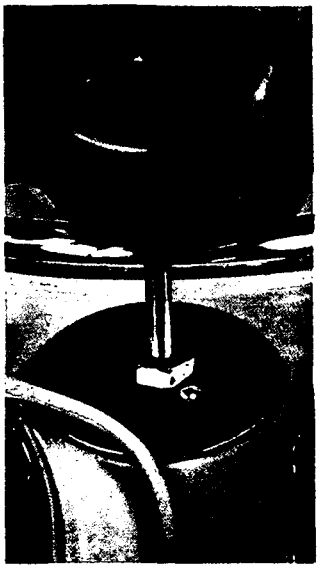



**Big performance and capacity with ease of handling.** The GS 83 brings big performance and capacity to toxic waste cleanup. Practical design ensures ease of handling. Powerful centrifugal airflow maintains optimum suction for continuous operating efficiency — either as a portable cleaning system or as a fixed dust collector. Has a disposable bag capacity of 18 gallons dry-bulk.

## Optional Manometer

(On models GS82 & GS83) Alerts operator when filter needs to be shaken. Cleaning the filter regularly maintains high suction and filtration efficiency and extends filter service life.

## Easy, dust-free disposal of debris

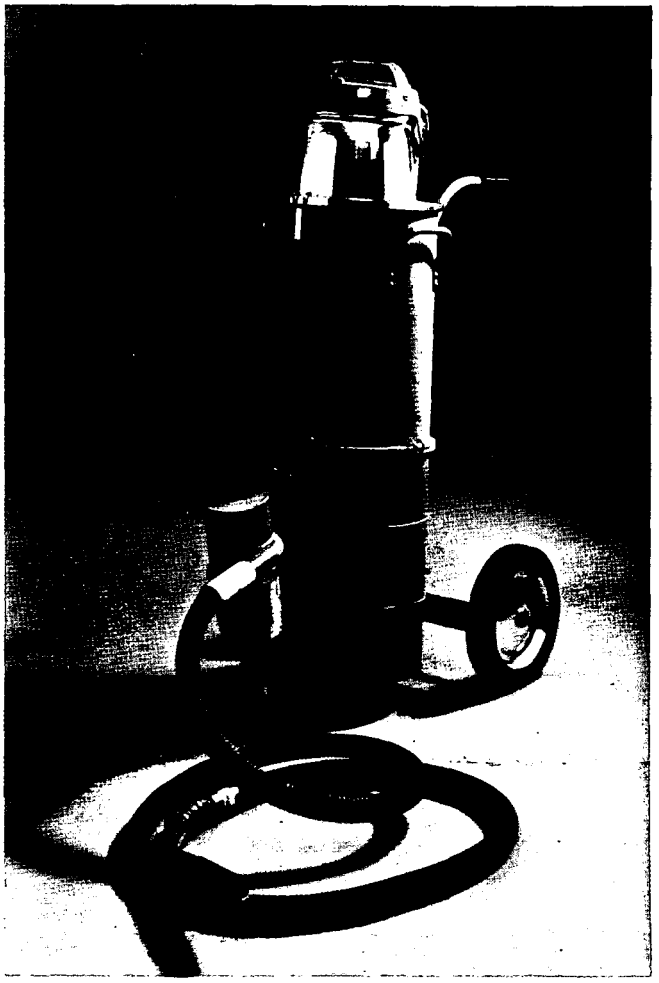


1. Use external agitator handle to shake all debris off filter into sealed container.

2. Lower the container (bottom of vacuum) to floor Disposable polyliners are available to fit container

3. Debris is now captured in the easily sealed heavy gauge polyliner.

# Nilfisk
# Mercury Vacuum Cleaner



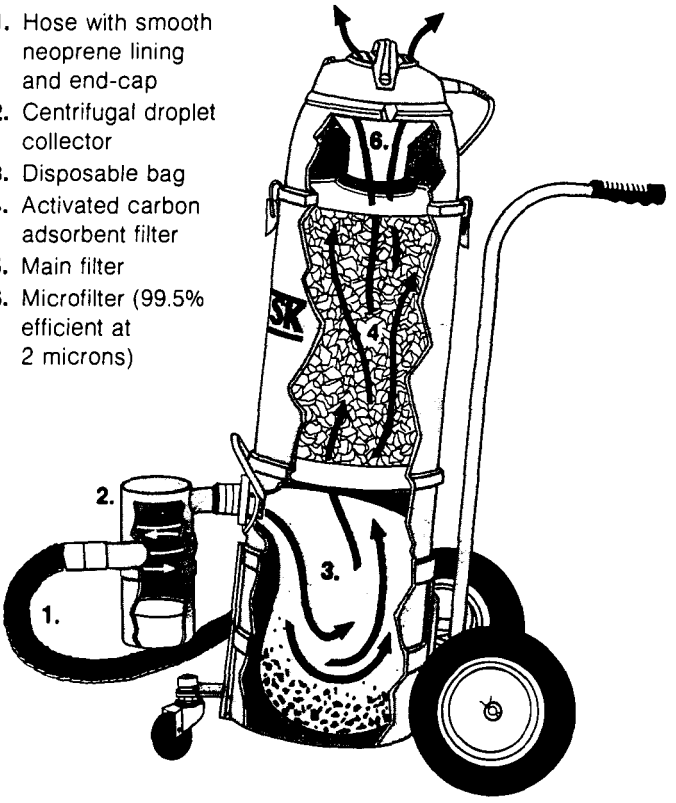
Nilfisk has developed a completely portable mercury recovery system to eliminate the hazards of mercury spills in laboratories and manufacturing facilities.

The system handles both liquid mercury and mercury compounds. Powerful suction capacity and well engineered cleaning tools ensure quick cleanup of spills even in hard-to-reach places. The centrifugal droplet separator has been designed to collect liquid mercury in an unbreakable plastic bottle for future re-use or disposal. An airtight cover for sealing a filled recovery bottle is also supplied. Smooth neoprene hose-lining reduces droplet residue in the hose.

Large five-gallon stainless steel container with disposable bag provides additional recovery capacity for large spills, dust and debris. A thirty-pound charge of specially activated carbon effectively eliminates harmful mercury vapor from the vacuum exhaust. Generally, a carbon cartridge charge will last for two years before needing replacement.

The Nilfisk mercury recovery system meets or exceeds OSHA standards for inorganic mercury. Optional high efficiency particulate air (HEPA) filters ensure "absolute" retention of mercury compound dusts and other contaminants. All particulate and vapor filters are easily replaced.

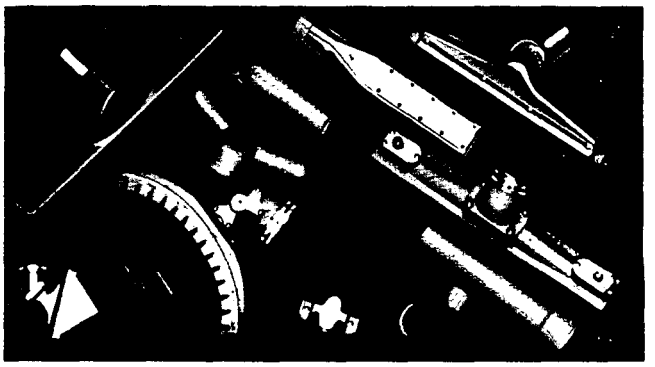
1. Hose with smooth neoprene lining and end-cap
2. Centrifugal droplet collector
3. Disposable bag
4. Activated carbon adsorbent filter
5. Main filter
6. Microfilter (99.5% efficient at 2 microns)




# Complete line of accessories

Nilfisk portable dust collectors can be fitted with a complete line of accessories to handle practically any kind of cleaning situation. Special accessories include attachments for floors, machinery, equipment, overhead pipes, walls, shelving, and just about anything or anyplace where dust collects.

All Nilfisk nozzles are engineered to deliver optimum suction power at the pickup point. All hose-ends have swiveling ball-joint couplings to permit full freedom of movement. The couplings also help to prolong hose life by reducing knots and kinks that can develop during heavy use.

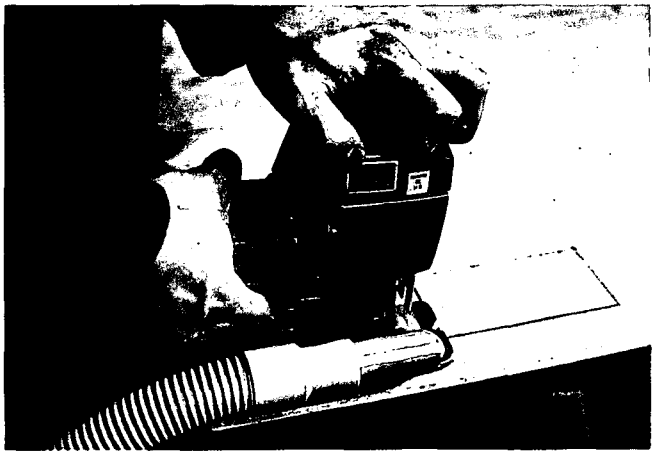


# Nilfisk Asbestos Removal Systems

Nilfisk asbestos removal systems meet or exceed OSHA safety standards for the collection of asbestos dust.

Our filtering system ensures up to 99.9995% retention efficiency at 0.12 microns. It traps ultrafine dust and returns "absolutely" clean air to the work environment. Nilfisk has applied this filtering system to a number of specific asbestos cleanup problems as indicated below.

**Removing sprayed-on asbestos insulation.** Nilfisk has developed a complete system for the quick, safe removal of sprayed-on asbestos insulation. Oversize main filters eliminate premature clogging. HEPA FILTERS meet OSHA 29 CFR 1910.1001. Separator top fits standard 30- or 55-gallon drums lined with heavy-gauge poly-liners to trap the bulk of the loosened asbestos insulation in sealable bags. Unique scraping nozzle loosens wetted asbestos in most cases and sucks it directly into the enclosed system. This reduces the amount of asbestos that falls to the floor. Lightweight extension wands can eliminate the need for scaffolding, allow the operator to get to hard-to-reach areas. Fixed floor nozzle permits fast cleanup of large open spaces.



**Controlling asbestos dust.** Nilfisk offers shielded hand tool and sander systems to control toxic or nuisance dust created in the fabrication of materials. All systems consistently meet or exceed OSHA standards for control of toxic dusts. Each system consists of a HEPA or Super HEPA-filtered vacuum cleaner and a safely enclosed hand tool—such as a saber saw, drill and oscillating saw—or dust control sanders. Static pressure and airflow have been skillfully combined to overcome the unusually high escape velocity of asbestos fibers and other toxic dusts. Nilfisk vacuum cleaners have been in regular use for years in manufacturing facilities.

**Collecting automotive brake lining dust.** Nilfisk Asbesto-Clene® Systems have been totally engineered to contain and collect asbestos dust which is liberated when automotive brake linings are replaced. Each system consists of a HEPA-filtered dust collector and a brake encapsulation cylinder. When the cylinder is in position, the entire brake assembly is enclosed by a segmented diaphragm which forms a dust seal. Clear, shatterproof windows permit continuous viewing of the cleaning process. Compressed air directed by the mechanic dislodges even inaccessible asbestos dust from the exposed brake mechanism. The loosened dust within the cylinder is sucked directly into the Nilfisk collector and trapped in disposable bags. During the entire operation, the mechanic is safe from asbestos dust exposure. The systems require little maintenance. All steel construction resists abuse. Available in three models: System 400 for vehicles with drum brakes up to 12″ in diameter; System 500 is a System 400 fitted to a highlift jack; and System 600 for vehicles with drums up to 20″ in diameter. One-size-fits-all. System 600 will accomodate double wheel assemblies.

**National representatives.** Nilfisk has a nationwide network of regional representatives to help you manage your toxic waste cleanup problems. They are thoroughly familiar with governmental codes and regulations dealing with the safe cleanup of toxic and hazardous waste materials. The Nilfisk representative in your area will gladly survey your workplace and make recommendations at no cost.

**For more information.** If you would like more information on Nilfisk portable dust collectors, call or write Customer Service Department, Nilfisk of America, Inc., 300 Technology Drive, Malvern, PA 19355. 1 (800) NIL-FISK.

**NILFISK**

*Dust Collection Specialists Since 1910.*



Printed in U.S.A. NIL-5033R GB104 7/90

PAGE NO.

PREPARED BY gc

DATE 11-27-90 tuesday

| ACTION NOTES | | PLANNING NOTES |
|---|---|---|
| | 1 | David Jeveason . 1-800-852-3698 |
| | 2 | Hazard Technologies HEPA FILTER REPLACEMENT |
| | 3 | TIGERVAC EXTERNAL $160- CLASS II GROUP E |
| | 4 | HAKO INTERNAL $400- |
| | 5 | HILDE INTERNAL $400- |
| | 6 | |
| | 7 | |
| | 8 | |
| | 9 | Dupont puchased TIGERVAC chemical plant by the Delaware . |
| | 10 | Memorial Judge |
| | 11 | Merck and Company pharmaceutical puchased TIGERVAC |
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| ACTION NOTES | | PLANNING NOTES |
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TIME SCHEDULE

| SUNDAY | | MONDAY | | TUESDAY | | WEDNESDAY | | THURSDAY | | FRIDAY | | SATURDAY | |
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| MONTH | DATE | MONTH | DATE | MONTH | DATE | MONTH | DATE | MONTH | DATE | MONTH | DATE | MONTH | DATE |
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meeting T. Fisher 11-28-90

PAGE NO.

Metco Division Perkin-Elmer
Miller Place Facility

PREPARED BY

DATE

ACTION NOTES

PLANNING NOTES

Aluminum Dust Control

Facilities Coordination Department personnel contacted Nulfish and Hako - manufacturer of explosion proof vacuum - the vacuum cleaner they manufacture are rated for Class II, Group F or Group G atmospheres.

Aluminum dust is rated Class II, Group E.

We have since contacted Hazard Technologies based out of Pennsylvania which represents TIGERVAC - a manufacturer of ~~a~~ explosion proof vacuum cleaners that are rated Class II, Group E. We expect to receive the product Fri[illegible] thursday morning via federal express.

Rich Podlaski attempted to locate a manufacturer of a vacuum cleaning system with the appropriate rating. (see attached) Alcoa will ~~give~~ release to Metco thier standard ~~their~~ operating procedures for handling Aluminum powders. Vinnie Merizolo contacted John Scadbetter on November 16, 1990 to request this information.

| JOB NO. | |
|---|---|

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| DATE | |

| ACTION NOTES | | PLANNING NOTES |
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TIME SCHEDULE

| SUNDAY | | MONDAY | | TUESDAY | | WEDNESDAY | | THURSDAY | | FRIDAY | | SATURDAY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MONTH | DATE | MONTH | DATE | MONTH | DATE | MONTH | DATE | MONTH | DATE | MONTH | DATE | MONTH | DATE |
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PAGE NO.

PREPARED BY: ge

DATE: 11-14-90 wednesday

NILFISK JEFF KWARTLER 516-795-1243

DAVID LEVENSON - HAZARD TECHNOLOGIES IN PENN.

METCO DIVISION PERKIN-ELMER
DUFFY AVENUE
ENVIRONMENTAL ISSUES

Water Pollution Control -

Waste water from a sink in the machine shop appears to discharge into a dry well through a grease trap and neutralization tank. Chronic acid etching solution and oils are handled in this area. Staining in the sink indicated these chemicals may be discharged to the dry well. All sinks in process area should be connected to the sanitary sewer. Waste oils and acids should be disposed of and managed as hazardous waste.

Our investigation of the waste lines revealed that the sink discharges to the storm water drain lines and then into the sump. Currently establishing an employee training program to include hazardous materials handling.

Air Pollution Control -

Emission points discharge VOCs from two spray paint booths and an oven. Paint samples were collected by an NCHD inspector to verify compliance with VOC emissions standards.

An inspector from Nassau County Department of Health, Office of Industri Facility Regulation, collected paint samples on March 26, 1990. Paints currently in use at facility are water base. An inventory of the air emission points is maintained.

Hazardous Waste Management -

Hazardous waste containers are not labeled or sealed at the point of generati to prevent mixing of incompatible waste and improper disposal. Secondary containment, to prevent spills from reaching a nearby storm drain, is not present in the centralized drum storage area located at the loading dock. Hazardous wastes shipped offsite (October 1989 and April 1989) exceeded the 1000 kg limit for small quantity generators.

An inspector from Nassau County Department of Health office of Industria and Hazardous Wastes Management toured the facility. Concerning seconda containment, obtaining absorbent material would surfice. The requiremen of containers being labeled, dated and sealed is in the process of being addressed. We are in the process of setting up a waste monitoring syster which will include weekly inspections of storage areas.

Hazardous Waste Management -

Waste degreasing solvent and waste rags are not properly classified. Rags contaminated with a hazardous waste must be disposed of as hazardous waste.

A waste container will be put into the waste accumulation area soley for the purpose of collecting contaminated rags.

Hazardous Waste Management -

Metco is not in compliance with the provisions of The Nassau County Health Department (NCHD) Hazardous Waste Ordinance:

Central storage areas do not have containment.

Containers in storage are not labeled with DOT designations.

Training is not provided to workers or supervisors involved in hazardous mateials handling practices.

Annual reports have not been submitted to NCHD.

Secondary containment, employee training, proper labeling and annual reports are currently being addressed.

Past Disposal Storage/Practices -

Facility industrial wastes were discharged to a septic system. This system was abandoned in 1986 without documentation on the impacts of discharging industrial wastes to the environment.

A storm water basin receives water from the facility cooling system. The sour of this water is an onsite contaminated process well. The well was sampled by NYDEC and shown to be contaminated with volatile organics. The source of this contamination has not been documented.

Underground storage tanks were removed without documentation on the potential impact to soil and ground water.

The underground storage tanks were removed from all three facilities unde the guidance of a Nassau County Department of Health representative (1987

Upon receiving proper approval, we can proceed with our environmental con sultants and conduct an investigation covering past disposal/storage practices at our facilities.

Community Right To Know -

A (Tier II) chemical inventory was not submitted to the local fire department.

Reviewing and revising the distribution of reports for SARA Title III Community-Right-To-Know.

**PERKIN ELMER**

Metco Perkin-Elmer
1101 Prospect Avenue
P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 334-6692
Telex 967759

July 1, 1991

Local Emergency
Planning Committee
c/o Civil Preparedness
Office
140 15th Street
Mineola, NY 11501

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions, please feel free to contact me at the above number.

Very truly yours,

Patrick A. Tighe
Superintendent
Facilities Coordination

PAT:mbf
Enclosures
cc: A.B. Mazzone

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *†(Extra charge)†*
2. ☐ Restricted Delivery *†(Extra charge)†*

| 3. Article Addressed to: | 4. Article Number |
|---|---|
| Local Emergency<br>Planning Committee<br>c/o Civil Preparedness<br>Office<br>140 15th Street<br>Mineola, NY 11501 | P 617 298 078 |
| | Type of Service:<br>☐ Registered ☐ Insured<br>☒ Certified ☐ COD<br>☐ Express Mail |
| | Always obtain signature of addressee or agent and DATE DELIVERED. |
| 5. Signature – Addressee<br>X | 8. Addressee's Address *(ONLY if requested and fee paid)* |
| 6. Signature – Agent<br>X | |
| 7. Date of Delivery | |

PS Form **3811**, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 **DOMESTIC RETURN RECEIPT**

P 617 298 078

**Certified Mail Receipt**
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to Local Emergency Planning Committee

Street & No. c/o Civil Preparedness Office 140 15th Street

P.O., State & ZIP Code Mineola, NY 11501

| | |
|---|---|
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, & Address of Delivery | |
| TOTAL Postage & Fees | $ |
| Postmark or Date | |

PS Form **3800**, June 1990

Fold at line over top of envelope to the right of the return address.

**CERTIFIED MAIL**

P 617 298 078

GE Lighting
General Electric Company
1975 Noble Road, NELA Park
Cleveland, Ohio 44112

# LAMP MATERIAL INFORMATION SHEET

## MATERIAL SAFETY DATA SHEET (MSDS)
### INFORMATION AND APPLICABILITY

The Material Safety Data Sheet (MSDS) requirements of the Occupational Safety and Health Administration (OSHA) for chemicals are **not** applicable to manufactured articles such as lamps. No material contained in a lamp is released during normal use and operation.

The following information is provided as a service to our customers. The following Lamp Material Information Sheet contains applicable Material Safety Data Sheet information.

## I. PRODUCT IDENTIFICATION

**GE ECOLUX FLUORESCENT LAMPS**

GENERAL ELECTRIC COMPANY
1975 NOBLE ROAD, NELA PARK, CLEVELAND, OH 44112
216-266-2222

## II. LAMP MATERIALS AND HAZARDOUS INGREDIENTS

**Glass & Metal**
The glass tube used in this fluorescent lamp is manufactured from soda-lime glass and is essentially similar but not identical to that used throughout the glass industry for bottles and other common consumer items. The end-caps on the lamp are generally aluminum while the wires in the lamps (called filaments or cathodes) are made of tungsten.

**Phosphor**
The Ecolux product line uses two different phosphor systems. One phosphor system (halophosphate) uses calcium chloro-fluoro-phosphate, with small amounts (less than 1-2% by weight the phosphor) of antimony and manganese, both of which are tightly bound in the phosphor matrix. The second phosphor system (SP/SPX) uses a mixture of rare earth elements such as lanthanum, and yttrium as either an oxide or as a phosphate, along with a barium/aluminum oxide. These phosphors produce better lamp efficiency and color rendition. The phosphor components may vary slightly depending on the color of the lamp (cool white, warm white, etc.).

Normally a 1.5 inch diameter (T12) fluorescent lamp has approximately 1 - 1.25 grams of the phosphor per foot of lamp, resulting in about 4 - 5 grams of the phosphor coating its inside length. A 1 inch diameter (T8) lamp has approximately 1.5 - 2 g phosphor coating per lamp.

**Mercury**

While mercury is present in small amounts in all fluorescent lamps, the Ecolux lamp uses the lowest amount of mercury of any GE Lighting lamp of the same type. The amount of mercury present in any given lamp will vary slightly, but the target dose for Ecolux is over 80% less than the average for traditional fluorescent lamp designs of the same type. The average target dose for the F40T12 Ecolux lamp and the F32T8 Ecolux lamp is less than 10 mg.

## III. HEALTH CONCERNS

**Phosphor**

Except for small modifications, the halophosphor is essentially the same material that has been in use in GE lamps for over fifty years. No significant adverse effects, either by ingestion, inhalation, skin contact, or eye implant, were found in a five-year animal study of the original phosphor by the Industrial Hygiene Foundation of the Mellon Institute. Also, there have been no significant adverse effects on humans by any of these routes during the many years of its manufacture or use. The phosphor is somewhat similar to the inert mineral apatites (calcium phosphate-fluorides) which occur in nature.

Antimony, manganese, yttrium and barium compounds are characterized by OSHA as hazardous chemicals, as are most inorganic compounds. However, due to their insolubility, relatively low toxicity and small amount present in the phosphor and the lamp, these materials do not present a significant hazard in the event of breakage of the lamp.

**Mercury**

Neither the mercury nor the phosphor concentration in air produced as a result of breaking one or a small number of fluorescent lamps would result in significant exposure levels. However, when breaking a large number of lamps for disposal, appropriate industrial hygiene monitoring and controls should be used to minimize airborne levels or surface contamination. Such work must be done in a well-ventilated area. Local exhaust ventilation and personal protective equipment such as respirators may be needed.

## IV. DISPOSAL CONCERNS

**TCLP**

Disposal requirements for fluorescent lamps are determined by whether the lamp is characterized as hazardous waste. The Ecolux lamp would not be classified as a hazardous waste, based on test data and statistical analysis developed according to the US EPA's Toxicity Characteristic Leaching Procedure (TCLP) for mercury[1].

Ecolux TCLP test performance information and the test protocol can be provided on request.

While the Ecolux lamp will pass the federal EPA TCLP test, state or local regulations may still regulate disposal of mercury-containing products. If state or local disposal regulations exist, state and local agencies should be contacted for specific guidance.



[1] Method 1311 of *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846.* The TCLP characterization test is currently specified in the Code of Federal Regulations Title 40, Part 261 (40 CFR 261) as part of the Resource Conservation and Recovery Act of 1990.

RCT #311 NO HAZARDOUS CHEMICAL DUFFY AVENUE

1987

Certification (Read and Sign After Completing All Sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

Name and Official Title of Owner/Operator OR Owner/Operator's authorized Representative

Signature Date Signed

DUFFY AVENUE

TIER ONE — Emergency & Hazardous Chemical Inventory

Aggregate Information By Hazard Type

For Official Use Only — ID #: _____

Date Received: _____

Reporting Period From January 1, to December 31, 1987

Facility Identification:

Name: METCO DIVISION PERKIN-ELMER, HICKSVILLE
Address: DUFFY AVENUE WAREHOUSE
325 DUFFY AVENUE
City: HICKSVILLE, NY 11801

SIC Code: 3399 Dun & Bradstreet #:

Owner/Operator Information:

Name: MR. ABE TEICHER, SAFETY OFFICER
Address: METCO, PERKIN ELMER, HICKSVILLE
325 DUFFY AVENUE
City: HICKSVILLE, NY 11801
Phone: (516)334-1300

Emergency Contacts:

Name: MR. ABE TEICHER
Title: MANAGER, PLANT ENGINEERING
Phone: (516)334-1300
24 Hr Phone: ( ) -

Name: MR. ABE TEICHER
Title: SAFETY OFFICER
Phone: (516)334-1300
24 Hr Phone: ( ) -

Physical Hazards

| Hazard Type | Max Amount* | Average Daily Amount* | Number Of Days On-Site | General Location |
|---|---|---|---|---|
| Fire | 00 | 00 | 000 | DUFFY AVENUE HICKSVILLE, NY |
| Sudden Release of Pressure | 00 | 00 | 000 | DUFFY AVENUE HICKSVILLE, NY |
| Reactivity | 00 | 00 | 000 | DUFFY AVENUE HICKSVILLE, NY |

Health Hazards

| | | | | |
|---|---|---|---|---|
| Immediate (Acute) | 00 | 00 | 000 | DUFFY AVENUE HICKSVILLE, NY |
| Delayed (Chronic) | 00 | 00 | 000 | DUFFY AVENUE HICKSVILLE, NY |

Certification (Read and Sign After Completing All Sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

_____

*Name and Official Title of Owner/Operator OR Owner/Operator's authorized Representative*

_____ _____

Signature Date Signed

* Reporting Ranges

| Range Value | Weight Range in Pounds From... | To... |
|---|---|---|
| 00 | 0 | 99 |
| 01 | 100 | 999 |
| 02 | 1,000 | 9,999 |
| 03 | 10,000 | 99,999 |
| 04 | 100,000 | 999,999 |
| 05 | 1,000,000 | 9,999,999 |
| 06 | 10,000,000 | 49,999,999 |
| 07 | 50,000,000 | 99,999,999 |
| 08 | 100,000,000 | 499,999,999 |
| 09 | 500,000,000 | 999,999,999 |
| 10 | 1 Billion | Over 1 Billion |

DUPPY AVENUE NO HAZARDOUS CHEMICALS

TIER TWO 1987

Certification (Read and Sign After Completing All Sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

Name and Official Title of Owner/Operator OR Owner/Operator's authorized Representative

Signature Date Signed

Optional At

*Call (202) 475-9419 for Technical Support*

# Before Using TRI Programming Diskettes Please Read This First

March 1991

Dear Form R Submitter:

Enclosed is Version 1.0 of the EPA magnetic media software that will allow you to submit your TRI data for Reporting Year 1990 on computer diskettes. (Please see the Reporting Package for a list of commercial software vendors that may have similar packages.) If you submit on magnetic media the chances of error on your part (due to a variety of factors) or on our part (due to erroneous data entry) are significantly reduced. Please remember that although use of the EPA software or submitting on magnetic media with other software is truly optional, we would heartily encourage your consideration of magnetic media reporting.

The README.EPA file on the diskette labelled "TRI Documentation" provides detailed instructions for installing and using our software. **Please call (202) 475-9419 for technical support instead of the 1-800 number printed on the diskettes.**

As with any totally new software, issues arise concerning ease of use and software idiosyncracies. As we revise our software in the future we will be striving to improve its ease of use. Please call the telephone number above with any suggested changes to the software. Two important features of EPA's TRI software that we need to bring to your attention are:

- Our software is designed for data entry **only**. Generally, you may freely edit within a field or screen, but you **cannot** go back to previous screens and make changes. Please **do not** use a text editor or any other program to modify files we supply or files you create for submission because this may result in your submitting a diskette which will be in non-compliance.

- During software installation and setup you will be asked to specify a path name for files. This path name **must** have a final backslash as shown in the examples:

  C:\EPA\ or A:\

  If the path name is not correct, the data you type will be lost and you are returned to the DOS prompt.

**On the next few pages we provide answers to some common questions about EPA's TRI software.**

Printed on Recycled Paper

**1. How do I break out of the program without rebooting?**

Press <Alt-C> to interrupt EPA.EXE and display a message similar to:

```
proc M_LEVEL1 line 43, paused...                    Continue?
```

From the Continue? prompt press N to return control back to DOS. If you were typing data for a new submission then all data for this submission is unusable and **must** be retyped. Please delete this incomplete Form R report using menu option "2 Remove EPA Form R."

**2. I started the program and began typing a new submission, after a few screens I got the message:**

```
Proc F_TR01_A line 164, open error C:\EPATRI01.DBF (2)          Retry? (Y/N)
```

Press N to exit back to DOS and restart the program. Select menu option "3 Setup EPA Form R" and verify each path name contains a final backslash character "\". Data you have typed so far is lost and must be retyped. Please delete any incomplete Form R reports using menu option "2 Remove EPA Form R."

**3. How do I edit data? What happens if I make a spelling mistake?**

When data entry for a submission is complete, it cannot be edited. With the exception described below, you may edit individual typed characters, fields, and entire screens or sections **before** you leave an individual screen. At the bottom of most screens a message asks the question:

```
"Change information Y/N"
```

Once past this "failsafe" point, you may not go back and edit any previous data. Note that this version of the EPA software is designed for data entry **only**, and does not permit global editing. Please **do not** use a text editor or any other program to modify files we supply or files you create for submission because this may result in your submitting a diskette which will be in non-compliance.

Please note in Part III. Section 5. "RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE" that you **may not** go back and edit release values after you complete a particular release section.

**4. An EPA ID number begins with three alpha characters. I can type in two characters and press the right arrow key that leaves a blank in the field.**

You are correct. EPA ID numbers have three alpha characters and our edit check encourages entry of three leading alpha characters. Although it is possible to override this edit check using the arrow keys the blank character created does not cause any file loading problems. The space bar **will not** override this edit check.

**5. Each time I create a new Form R, I need to type facility information that doesn't change.**

You are correct. Facility information must be entered repeatedly for each new submission under this version of the EPA software.

**6. The software took a long time before creating the transfer files.**

You are correct, transfer files do take time to analyze, validate, and write to disk. Messages displayed during this process include:

```
Analyzing and counting report data, Hold on

Creating transfer file A:\TRI01.TXT

Validity checking data in file A:\TRI02.TXT
```

You may notice the floppy or hard disk drive light flashing during this process. At the conclusion you return to the opening menu screen.

**7. How do I print out a hardcopy report for my state?**

Before you print a report, set your printer to condensed print mode (17 characters per inch). If you are not sure how to set your printer to condensed mode, please refer to your printer manual.

For printing on a Hewlett-Packard or compatible laserjet printer please note the following:

- Changes to printer setup from the LaserJet front panel do not take effect until you press RESET.

- The font selected must be condensed 16.6 characters per inch (cpi). The HP LaserJet internal font 108 LINE_PRINTER is fine.

- The printer must actually be printing at 6 lines per inch, otherwise printed lines will "creep" toward the top and not align with the plastic overlay.

- After printing, check overlay alignment. The bottom line of page 1 may print on a separate page by itself and need to be cut and pasted. Pages 2 and 3 will match. Depending on the amount of data printed, pages 4 and 5 might need to be cut horizontally and independently aligned . On page 4 try cutting between section 6. "TRANSFERS OF THE CHEMICAL ..." and section 7. "WASTE TREATMENT METHODS ..." On page 5 make your cut just above "ADDITIONAL INFORMATION ON WASTE ..."

To print Form R using an HP LaserJet Series II enter the following commands from the printer control panel **before** printing:

| Press | Printer Displays | Notes |
|---|---|---|
| ON LINE | 00 READY | orange indicator light goes out |
| MENU | COPIES=01 * | |
| MENU | MANUAL FEED=OFF* | |
| MENU | FONT SOURCE=I * | |
| MENU | FONT NUMBER=00 * | |
| + | FONT NUMBER=08 | press until font number increments to 08 |
| . . . | | |
| ENTER | FONT NUMBER=08 * | asterisk appears |
| MENU | FORM=060 LINES * | |
| MENU | 00 READY | cycle back to ready prompt |
| RESET | 07 RESET | press and hold RESET until 07 RESET message appears |
| | 00 READY | Orange indicator lights up |

Please remember to restore original printer settings after you finish Form R printing.

## SITE DESCRIPTION

The Perkin-Elmer Duffys Avenue facility is located at 325 Duffys Avenue, Hicksville, New York. The property is located on Duffys Avenue, between Frank Drive and Henrietta Street, in Hicksville, Town of Oyster Bay, New York, and is identified on the Nassau County tax map as Section 11, Block H, Lots 112 and 484 (see Figure C-1). The Duffys Avenue property contains approximately 6.5 acres of land upon which is located a 100,000-square foot, one-story brick building, which was constructed in 1959. The building is abutted on its western, eastern, and southern sides by asphalt pavement. A shipping and receiving dock is located on the southern side of the building. A landscaped lawn abuts the northern side of the building. A recharge basin is located in the southeastern corner of the site and a landscaped recreational area for site employees is located in the southwestern portion of the site. Site drainage and storm-water runoff are accomplished by a series of dry wells located throughout the paved areas of the Duffys Avenue property. Located on the western, southern, and eastern sides of the property are dry wells that recharge the storm water to the ground. One grating on the southeastern corner of the property receives storm water and discharges it into the on-site recharge basin.

Between 1959 when the building was constructed and 1978, the building on the Duffys Avenue property was operated by T.O.D. Manufacturing Company. Site operations reportedly involved the plating of boat parts and possibly fish hooks (Conroy 1993). The property was purchased by Perkin-Elmer on December 19, 1978 from New England Mutual Life Insurance Company (Macri 1993). Since that time, the building has been operated by Metco, a division of Perkin-Elmer. Site operations involve the manufacture of parts and equipment for the thermal spray coatings industry. Specifically, specialized spray guns and spray gun parts used to apply thermal liquid metal coatings are manufactured on-site. Site operations include machining, degreasing, tumbling, testing, and research and development. The building is divided into several interior sections, including machining and drilling, assembly and inspection, stock rooms, boiler room, maintenance room, and a cafeteria.

The Duffys Avenue site is located in a predominantly industrialized area. Surrounding properties include a solid waste transfer station (no longer in use) and a sand and gravel pit to the north; a fuel storage facility operated by Agway, Inc. to the west; a heavy equipment storage yard operated by Malvese Brothers to the west and south; and Toma Enterprises (operations unknown) to the south. The eastern property boundary abuts a vacant lot, Jodee Plastics (manufacturers of custom plastic extrusion and precision fabrications), and American Permancunc-Bowe Corporation (manufacturers of industrial laundry and dry cleaning equipment). The Bowe facility is currently unoccupied.

*220 Miller Place, Hicksville, NY ("Miller Place Site")*

The activities at this facility involve the manufacture of metallic and ceramic powders and wire. The subject property contains a 59,000 square foot, one-story building located on approximately 9 acres of land. Between 1951, when the building was constructed and 1975, the subject facility was occupied by Riverside Plastics Corporation, a division of Bishoff Chemical Corporation ("Riverside"). Riverside was reportedly engaged in the manufacture of fiberglass boats. The subject property was purchased by The Perkin-Elmer Corporation in June 1975, and has been operated by the Metco Division since that time.

Current facility operations include swaging and drawing (the compression and stretching of wire that has been filled with metal powder pellets) and the blending of metallic or ceramic powders with lacquer and glue. The subject building is divided into several interior sections, including blending rooms, cladding rooms, screening rooms, tungsten and ceramic oven rooms, spray areas, inspection laboratories, packaging and staging areas, boiler room, maintenance rooms, cafeteria, and office space.

The Miller Place site is located in a predominantly residential area. Surrounding properties include a vacant one-story office building to the north; residences to the east; a lumber yard to the south; and Long Island Railroad tracks to the west. Residences are also located further to the north and south, beyond the previously identified commercial activities. The Northern State Parkway is situated beyond the Long Island Railroad tracks to the west.

Summary of Findings

The attached table provides a summary of outstanding issues of potential concern by facility, including reasonable worst case estimates of costs required to correct or remediate the identified concern.

In the preparation of the cost estimates, consideration was given to whether the identified issue could be readily corrected using Metco facility personnel. No costs were assumed in those situations where wholly internal staff could be used to rectify the perceived problem. It should be emphasized that where potential non-compliance issues are involved, the specification of no costs should not be construed as implying that the perceived problem is not important. All such issues should be promptly investigated and appropriate corrective measures implemented where warranted. It also should be noted that where non-compliance issues may be involved, there is always the potential for incurring administrative or civil penalties (monetary fines), which in some cases can be substantial. We did not estimate either the probability of a fine or its potential magnitude, for such decisions normally are made by agencies or the courts on a case-by-case basis.

Although not discussed in the summary table, we would like to comment upon the soil and groundwater contamination issues at the Duffys Avenue site.

The Geraghty & Miller study identified the presence of elevated levels of selected metals in the surficial soils of the existing recharge basin which is located along the southeasterly side of the property. The data suggested that metals are present throughout the recharge basin at concentration levels above the New York State Recommended Soil Cleanup Objectives. However, Geraghty & Miller concluded that because of the immobility of the metals in soils and the apparent depth to groundwater (greater than 40 feet), no impact to groundwater was expected and therefore, no further action seemed warranted. While the New York DEC and the Nassau County Board of Health would be the ultimate decision makers as to the need for the remediation of soils at the recharge basin, we concur with Geraghty & Miller's initial assessment of the situation. The soil cleanup objectives are guidance values only. Their applicability on a site-specific basis are dependent upon a range of other considerations, including the likely impact of contaminants on groundwater. While no one can be assured that a soils cleanup at this location would not be ordered, the available data provides a strong argument against such a need, in our opinion.

The Geraghty & Miller study also identified the presence of low levels of volatile organic compounds (VOCs) in the groundwater beneath the existing recharge basin; these same VOCs were also found in the site's production well at comparable concentrations. The concentrations detected do not exceed state Ambient Water Quality Standards and Guidance Values, however. These VOCs were not detected in site soils.

These findings indicate that there is an apparent area-wide groundwater contamination problem. In fact, deep aquifer groundwater contamination has been identified by the Nassau County Board of Health in the vicinity of the Duffy Avenue property, according to a June 1986 report entitled,

*Investigation of Contaminated Aquifer Segments--Nassau County, New York* (prepared by the Nassau County Board of Health and Dvirka and Bartilucci, Consulting Engineers).

Geraghty & Miller's June 1993 review of regulatory agency files and discussions with Metco division personnel did not indicate that the Duffys Avenue property is the subject of investigation by any regulatory agency (federal, state, or local) as a potentially responsible party for the aquifer contamination. Followup by ENSR with the New York DEC, Hazardous Waste Remediation Section (Mr. Girish Desai, Environmental Engineer), confirms that the Nassau County Department of Health has not made a claim under the state's Superfund Program for the West Hicksville or North Hicksville contaminated aquifer segments. However, the American Permancunc-Bowe property, which is located adjacent to Metco at 200 Frank Drive, is the subject of a New York DEC Superfund investigation (#130048, Class II site--requiring remediation). The project is being managed by Mr. Jamie Ascher in the agency's Stoneybrook, office. Mr. Ascher was unavailable at the time of preparation of this report. ENSR recommends followup with Mr. Ascher to discern the nature and extent of contamination associated with Bowe Systems and the potential for the Metco property to be potentially drawn into this investigation in the future. It should be noted that the Bowe site is currently vacant.

In a related matter, it should be noted that during the time when Geraghty & Miller was preparing its site assessment of the Duffys Avenue property, the firm discovered that the New York DEC had drafted an Order requiring The Perkin-Elmer Corporation to investigate the impact to groundwater of volatile organic compounds from the recharge basin. According to Geraghty & Miller, the draft Order was never finalized because data available on the supply well water (deep aquifer water) and effluent to the recharge basin (process impacted water) indicated that both were of the same quality (i.e., the process was not discharging volatile organic compounds in excess of those already present in the aquifer) and, therefore, no action was warranted. This finding is supported by analytical data contained in Geraghty & Miller's March 1994 report entitled, *Environmental Site Assessments Conducted at the Perkin-Elmer METCO Division Facilities, Long Island, New York*. That report provides data that indicates that Duffys Avenue site does not appear to be contributing volatile organic compounds to either the shallow or deep acquifer. While it is not possible to preclude the Duffys Avenue property from being further investigated by the New York DEC with regard to the Bowe site's groundwater problem, there does appear to be current data that would suggest that volatile organic compounds related to historical activities on the Metco site have not migrated to the abutting Bowe site or any other off-site location.

BID. 40 11790 Perclorethane PTL

444-0240

DEC Hazardous Waste Remediation 444-0240



Direction → 444-0246

Study Limitations

This Executive Summary describes the results of ENSR's initial due diligence investigation to identify the presence of significant environmental liabilities materially affecting the subject facilities and/or properties. In the conduct of this due diligence investigation, ENSR has attempted to independently assess the presence of such problems within the limits of the established scope of work as described in our March 8, 1994 letter proposal.

As with any due diligence evaluation, there is a certain degree of dependence upon oral information provided by facility or site representatives which is not readily verifiable through visual inspection or supported by any available written documentation. ENSR shall not be held responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed by facility or site representatives at the time this investigation was performed.

This report and all field data and notes were gathered and/or prepared by ENSR in accordance with the agreed upon scope of work and generally accepted engineering and scientific practice in effect at the time of ENSR's investigation of the site. The statements, conclusions, and opinions contained in this report are only intended to give approximations of the environmental conditions on-site.

This report, including all supporting field data and notes (collectively referred to hereinafter as "information"), was prepared or collected by ENSR Consulting and Engineering (ENSR) for the benefit of Skadden, Arps, Slate, Meagher & Flom and its' client, Sulzer, Inc. (hereinafter jointly referred to as "Client"). ENSR's client may release the information to its lender or other third parties, who may use and rely upon the information at their discretion. However, any use of or reliance upon the information by a party other than specifically named above shall be solely at the risk of such third party and without legal recourse against ENSR, its parent or its subsidiaries and affiliates, or their respective employees, officers or directors, regardless of whether the action in which recovery of damages is sought is based upon contract, tort (including the sole, concurrent or other negligence and strict liability of ENSR), statute or otherwise. This information shall not be used or relied upon by a party that does not agree to be bound by the above statement.

PERKIN ELMER

The Perkin-Elmer Corporation
Metco Division
1101 Prospect Avenue
Westbury, New York 11590
Phone (516) 334-1300
Fax (516) 334-6692
Telex 967759

June 29, 1990

New York State Emergency
Response Commission
NYS Dept. of Environmental
Conservation
Bureau of Spill Response
50 Wolf Road/Room 326
Albany, NY 12233-3510

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Form

Dear Sir/Madam:

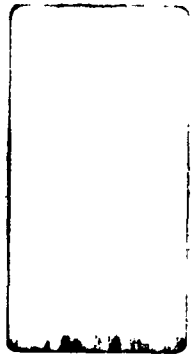
Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions please feel free to contact me at the above number.

Very truly yours,

Patrick A. Tighe
Superintendent
Facilities Coordination

PAT:ecb
Enclosures
cc: A. Mazzone



P 692 175 184

**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
*(See Reverse)*

| | |
|---|---|
| Sent to | New York State Emergency Response Commission |
| Street and No. | Bureau of Spill Response 50 Wolf Rd., Room 326 |
| P.O., State and ZIP Code | Albany, NY 12233-3510 |
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt showing to whom and Date Delivered | |
| Return Receipt showing to whom, Date, and Address of Delivery | |
| TOTAL Postage and Fees | $ |
| Postmark or Date | |

PS Form 3800, June 1985

*Fold at line over top of envelope to the right of the return address*

CERTIFIED MAIL

P 692 175 184

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. †*(Extra charge)*†
2. ☐ Restricted Delivery †*(Extra charge)*†

**3. Article Addressed to:**
New York State Emergency
Response Commission
NYS Dept. Environmental Conservation
Bureau of Spill Response
50 Wolf Road/Room 326
Albany, NY 12233-3510

**4. Article Number**
P 692 175 184

**Type of Service:**
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

**5. Signature — Addressee**
X

**6. Signature — Agent**
X

**7. Date of Delivery**

**8. Addressee's Address** *(ONLY if requested and fee paid)*

PS Form 3811, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 **DOMESTIC RETURN RECEIPT**

**PERKIN ELMER**

The Perkin-Elmer Corporation
Metco Division
1101 Prospect Avenue
Westbury, New York 11590
Phone (516) 334-1300
Fax (516) 334-6692
Telex 967759

June 29, 1990

EPCRA Reporting Center
Toxic Chemical Release Inventory
470 L'Enfant Plaza East
Suite 7103, SW
Washington, DC 20024

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions please feel free to contact me at the above number.

Very truly yours,

Patrick A. Tighe
Superintendent
Facilities Coordination

PAT:ecb
Enclosures
cc: A. Mazzone

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *†(Extra charge)†*
2. ☐ Restricted Delivery *†(Extra charge)†*

3. Article Addressed to:

EPCRA Reporting Center
Toxic Chemical Release Inventory
470 L'Enfant Plaza East
Suite 7103, SW
Washington, DC 20024

4. Article Number
P 692 175 183

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form 3811, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 DOMESTIC RETURN RECEIPT

P 692 175 183

**RECEIPT FOR CERTIFIED MAIL**
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
*(See Reverse)*

| | |
|---|---|
| Sent to | EPCRA Reporting Center<br>Toxic Chemical Release |
| Street and No | 470 L'Enfant Plaza East<br>Suite 7103, SW |
| P.O., State and ZIP Code | Washington, DC 20024 |
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt showing to whom and Date Delivered | |
| Return Receipt showing to whom, Date, and Address of Delivery | |
| TOTAL Postage and Fees | $ |
| Postmark or Date | |

PS Form 3800, June 1985

*Fold at line over top of envelope to the right of the return address*

CERTIFIED MAIL

P 692 175 183

Form Approved OMB No.: 2070-0093

Approval Expires: 01/91

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

**EPA FORM R**

**PART I. FACILITY IDENTIFICATION INFORMATION**

(This space for your optional use.)

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [X] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [ ] Unsanitized

1.3 Reporting Year 19 89

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe Superintendent, Facilities

Signature: Patrick A. Tighe Date signed: June 29, 1990

**3. FACILITY IDENTIFICATION**

3.1 Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION
Street Address: 220 Miller Place
City: Hicksville County: Nassau
State: New York Zip Code: 11801
TRI Facility Identification Number: 11801PRKNL220MI

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
P.O. BOX 23779
WASHINGTON, DC 20026-3779
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe Telephone Number (include area code): 516 334-1300 Ext. 495

3.4 Public Contact: Same as 3.3 Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3399 b. c. d. e. f.

3.6 Latitude: Degrees Minutes Seconds: 0861300 Longitude: Degrees Minutes Seconds: 0034700

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NYD981558570 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company: Perkin-Elmer Corporation

4.2 Parent Company's Dun & Bradstreet Number: 00-118-4480

*(Important: Type or print; read instructions before completing form.)*



EPA

# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

### 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

### 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

1.1 [Reserved]

1.2 CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.)
007440-02-5

1.3 Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.)
NICKEL POWDER

1.4 Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.)

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution; f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | d. [ ] Repackaging only | b. [ ] As a formulation component | | c. [X] As an article component |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | | b. [ ] As a manufacturing aid | | c. [ ] Ancillary or other use |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][4] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2)

| | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A. Total Release A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [X] [ ] [ ] | : | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [ ] [ ] [ ] | 5100 | 5.2b [C] | |
| 5.3 Discharges to receiving streams or water bodies 5.3.1 [ ] | 5.3.1a | [N/A] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) 5.3.2 [ ] | 5.3.2a | [N/A] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [N/A] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection on-site | 5.4a | [N/A] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land on-site | 5.5.1a | [N/A] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.1 Landfill | | | | | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [N/A] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [N/A] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [N/A] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV–Supplemental Information.)

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 [ ] | [N/A] [ ] [ ] | | 6.1.1b [ ] | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 [ ] | [N/A] [ ] [ ] | | 6.2.1b [ ] | 6.2.1c M [ ] [ ] |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 [ ] | [N/A] [ ] [ ] | | 6.2.2b [ ] | 6.2.2c M [ ] [ ] |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 [ ] | [N/A] [ ] [ ] | | 6.2.3b [ ] | 6.2.3c M [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

[N/A] Not Applicable (NA) - Check if no on-site treatment is applied to any wastestream containing the chemical or chemical category.

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a [ ] | 7.1b [ ] [ ] [ ] | 7.1c [ ] | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a [ ] | 7.2b [ ] [ ] [ ] | 7.2c [ ] | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a [ ] | 7.3b [ ] [ ] [ ] | 7.3c [ ] | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a [ ] | 7.4b [ ] [ ] [ ] | 7.4c [ ] | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a [ ] | 7.5b [ ] [ ] [ ] | 7.5c [ ] | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a [ ] | 7.6b [ ] [ ] [ ] | 7.6c [ ] | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a [ ] | 7.7b [ ] [ ] [ ] | 7.7c [ ] | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a [ ] | 7.8b [ ] [ ] [ ] | 7.8c [ ] | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a [ ] | 7.9b [ ] [ ] [ ] | 7.9c [ ] | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a [ ] | 7.10b [ ] [ ] [ ] | 7.10c [ ] | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal: Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| M 7 | _____ | _____ | [ ] + [ ] - _____ % | [ ] [ ] | R [ ] |

**EPA** **EPA FORM R**

## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|---|
| | | A.1 Reporting Ranges 0 / 1–499 / 500–999 | A.2 Enter Estimate | | |
| 5.3 Discharges to receiving streams or water bodies | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| | A.1 Reporting Ranges 0 / 1–499 / 500–999 | A.2 Enter Estimate | | |
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 ☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

Form Approved OMB No.: 2070-0093

Approval Expires: 01/91

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**EPA FORM R**

**PART I. FACILITY IDENTIFICATION INFORMATION**

(This space for your optional use.)

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [X] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [ ] Unsanitized

1.3 Reporting Year 19 89

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe Superintendent, Facilities

Signature: Patrick A. Tighe

Date signed: June 29, 1990

**3. FACILITY IDENTIFICATION**

3.1 Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION

Street Address: 220 Miller Place

City: Hicksville County: Nassau

State: New York Zip Code: 11801

TRI Facility Identification Number: 11801PRKNL220MI

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe — Telephone Number (include area code): 516 334-1300

3.4 Public Contact: Same as 3.4 — Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3399 b. c. d. e. f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 0861300 | | | 0034700 | | |

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NYD981558570 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company: Perkin-Elmer Corporation

4.2 Parent Company's Dun & Bradstreet Number: 00-118-4480

*(Important: Type or print; read instructions before completing form.)*



EPA

# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

### 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

### 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) 7429-90-5 |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) ALUMINUM |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | d. [ ] For sale/ distribution | e. [ ] As a byproduct / f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | b. [ ] As a formulation component | c. [X] As an article component | d. [ ] Repackaging only | |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | b. [ ] As a manufacturing aid | c. [ ] Ancillary or other use | | |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][4] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2)

| | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [X] [ ] [ ] | | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [ ] [ ] [ ] | 1700 | 5.2b [C] | |
| 5.3 Discharges to receiving streams or water bodies 5.3.1 [ ] | 5.3.1a | [N/A] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) 5.3.2 [ ] | 5.3.2a | [N/A] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [N/A] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection on-site | 5.4a | [N/A] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land on-site | | | | | |
| 5.5.1 Landfill | 5.5.1a | [N/A] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [N/A] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [N/A] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [N/A] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2)

| | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 | [N/A] [ ] [ ] | | 6.1.1b | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.1b | 6.2.1c M |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.2b | 6.2.2c M |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.3b | 6.2.3c M |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

[N/A] Not Applicable (NA) - Check if no on-site treatment is applied to any wastestream containing the chemical or chemical category.

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes | No |
|---|---|---|---|---|---|---|
| 7.1a | 7.1b | 7.1c | 7.1d [ ] | 7.1e % | 7.1f [ ] | [ ] |
| 7.2a | 7.2b | 7.2c | 7.2d [ ] | 7.2e % | 7.2f [ ] | [ ] |
| 7.3a | 7.3b | 7.3c | 7.3d [ ] | 7.3e % | 7.3f [ ] | [ ] |
| 7.4a | 7.4b | 7.4c | 7.4d [ ] | 7.4e % | 7.4f [ ] | [ ] |
| 7.5a | 7.5b | 7.5c | 7.5d [ ] | 7.5e % | 7.5f [ ] | [ ] |
| 7.6a | 7.6b | 7.6c | 7.6d [ ] | 7.6e % | 7.6f [ ] | [ ] |
| 7.7a | 7.7b | 7.7c | 7.7d [ ] | 7.7e % | 7.7f [ ] | [ ] |
| 7.8a | 7.8b | 7.8c | 7.8d [ ] | 7.8e % | 7.8f [ ] | [ ] |
| 7.9a | 7.9b | 7.9c | 7.9d [ ] | 7.9e % | 7.9f [ ] | [ ] |
| 7.10a | 7.10b | 7.10c | 7.10d [ ] | 7.10e % | 7.10f [ ] | [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|
| M 7 | Current reporting year (pounds/year) _____ Prior year (pounds/year) _____ Or percent change (Check (+) or (-)) [ ] + [ ] - _____ % | [ ] . [ ] | R |

*(Important: Type or print; read instructions before completing form.)*



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# EPA FORM R

## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|---|
| | | A.1 Reporting Ranges 0 1–499 500–999 | A.2 Enter Estimate | | |
| 5.3 Discharges to receiving streams or water bodies | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| | A.1 Reporting Ranges 0 1–499 500–999 | A.2 Enter Estimate | | |
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 ☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

Form Approved OMB No.: 2070-0093

Approval Expires: 01/91

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**EPA FORM R**

**PART I. FACILITY IDENTIFICATION INFORMATION**

(This space for your optional use.)

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [ ] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [X] Unsanitized

1.3 Reporting Year 19 89

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe Superintendent, Facilities

Signature: Patrick A. Tighe

Date signed: June 29, 1990

**3. FACILITY IDENTIFICATION**

3.1 Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION

Street Address: 220 Miller Place

City: Hicksville | County: Nassau

State: New York | Zip Code: 11801

TRI Facility Identification Number: 11801PRKNL220MI

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe | Telephone Number (include area code): 516 334-1300

3.4 Public Contact: Same as 3.4 | Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3399 b. c. d. e. f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| | 0861300 | | | 0034700 | |

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NYD981558570 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company: Perkin-Elmer Corporation

4.2 Parent Company's Dun & Bradstreet Number: 00-118-4480

*(Important: Type or print; read instructions before completing form.)*



EPA

## EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

### 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

### 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) 007440-47-3 |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) CHROMIUM (III) POWDER |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

2. Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution; f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | d. [ ] Repackaging only | b. [ ] As a formulation component | | c. [X] As an article component |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | | b. [ ] As a manufacturing aid | | c. [ ] Ancillary or other use |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][3] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [X] [ ] [ ] | | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [ ] [ ] [ ] | 1400 | 5.2b [C] | |
| 5.3 Discharges to receiving streams or water bodies (Enter letter code for stream from Part I Section 3.10 in the box provided.) 5.3.1 [ ] | 5.3.1a | [N/A] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| 5.3.2 [ ] | 5.3.2a | [N/A] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [N/A] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection on-site | 5.4a | [N/A] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land on-site | | | | | |
| 5.5.1 Landfill | 5.5.1a | [N/A] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [N/A] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [N/A] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [N/A] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

EPA

EPA FORM R

PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

## 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 [ ] | [N/A] [ ] [ ] | | 6.1.1b [ ] | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 [ ] | [N/A] [ ] [ ] | | 6.2.1b [ ] | 6.2.1c M [ ] [ ] |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 [ ] | [N/A] [ ] [ ] | | 6.2.2b [ ] | 6.2.2c M [ ] [ ] |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 [ ] | [N/A] [ ] [ ] | | 6.2.3b [ ] | 6.2.3c M [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

## 7. WASTE TREATMENT METHODS AND EFFICIENCY

[N/A] Not Applicable (NA) - Check if no on-site treatment is applied to any wastestream containing the chemical or chemical category.

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a [ ] | 7.1b [ ][ ][ ] | 7.1c [ ] | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a [ ] | 7.2b [ ][ ][ ] | 7.2c [ ] | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a [ ] | 7.3b [ ][ ][ ] | 7.3c [ ] | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a [ ] | 7.4b [ ][ ][ ] | 7.4c [ ] | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a [ ] | 7.5b [ ][ ][ ] | 7.5c [ ] | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a [ ] | 7.6b [ ][ ][ ] | 7.6c [ ] | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a [ ] | 7.7b [ ][ ][ ] | 7.7c [ ] | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a [ ] | 7.8b [ ][ ][ ] | 7.8c [ ] | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a [ ] | 7.9b [ ][ ][ ] | 7.9c [ ] | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a [ ] | 7.10b [ ][ ][ ] | 7.10c [ ] | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

## 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal: Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| M 7 | _____ | _____ | [ ] + [ ] - _____ % | [ ] [ ] | R [ ] |

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## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|---|
| | | A.1 Reporting Ranges 0 [ ] 1–499 [ ] 500–999 [ ] | A.2 Enter Estimate | | |
| 5.3 Discharges to receiving streams or water bodies | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| | A.1 Reporting Ranges 0 [ ] 1–499 [ ] 500–999 [ ] | A.2 Enter Estimate | | |
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 ☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

Form Approved OMB No.: 2070-0093
Approval Expires: 01/91

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| EPA FORM **R** | PART I. FACILITY IDENTIFICATION INFORMATION | (This space for your optional use.) |
|---|---|---|

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [X] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [ ] Unsanitized

1.3 Reporting Year 19 89

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe Superintendent, Facilities

Signature: Patrick A. Tighe

Date signed: June 29, 1990

**3. FACILITY IDENTIFICATION**

3.1 Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION

Street Address: 220 Miller Place

City: Hicksville

County: Nassau

State: New York

Zip Code: 11801

TRI Facility Identification Number: 11801PRKNL220MI

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe — Telephone Number (include area code): 516 334-1300 Ext. 495

3.4 Public Contact: Same as 3.3 — Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3399 b. c. d. e. f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 0861300 | | | 0034700 | | |

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NYD981558570 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company: Perkin-Elmer Corporation

4.2 Parent Company's Dun & Bradstreet Number: 00-118-4480

*(Important: Type or print; read instructions before completing form.)*



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# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

## 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | N/A | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

## 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) 007440-48-4 |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) COBALT POWDER |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution; f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | d. [ ] Repackaging only | b. [ ] As a formulation component | c. [X] As an article component | |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | | b. [ ] As a manufacturing aid | c. [ ] Ancillary or other use | |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][3] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2)

| | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [X] [ ] [ ] | | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [ ] [ ] [ ] | 1180 | 5.2b [C] | |
| 5.3 Discharges to receiving streams or water bodies 5.3.1 [ ] (Enter letter code for stream from Part I Section 3.10 in the box provided.) | 5.3.1a | [N/A] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| 5.3.2 [ ] | 5.3.2a | [N/A] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [N/A] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection on-site | 5.4a | [N/A] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land on-site | | | | | |
| 5.5.1 Landfill | 5.5.1a | [N/A] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [N/A] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [N/A] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [N/A] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV–Supplemental Information.)

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2)

| | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) [1][ ] | [N/A] [ ] [ ] | | 6.1.1b [ ] | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) [2][ ] | [N/A] [ ] [ ] | | 6.2.1b [ ] | 6.2.1c [M][ ][ ] |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) [2][ ] | [N/A] [ ] [ ] | | 6.2.2b [ ] | 6.2.2c [M][ ][ ] |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) [2][ ] | [N/A] [ ] [ ] | | 6.2.3b [ ] | 6.2.3c [M][ ][ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

[N/A] Not Applicable (NA) - Check if no on-site treatment is applied to any wastestream containing the chemical or chemical category.

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a [ ] | 7.1b [ ][ ][ ] | 7.1c [ ] | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a [ ] | 7.2b [ ][ ][ ] | 7.2c [ ] | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a [ ] | 7.3b [ ][ ][ ] | 7.3c [ ] | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a [ ] | 7.4b [ ][ ][ ] | 7.4c [ ] | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a [ ] | 7.5b [ ][ ][ ] | 7.5c [ ] | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a [ ] | 7.6b [ ][ ][ ] | 7.6c [ ] | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a [ ] | 7.7b [ ][ ][ ] | 7.7c [ ] | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a [ ] | 7.8b [ ][ ][ ] | 7.8c [ ] | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a [ ] | 7.9b [ ][ ][ ] | 7.9c [ ] | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a [ ] | 7.10b [ ][ ][ ] | 7.10c [ ] | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal: Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| [M][7] | _____ | _____ | [ ] + [ ] - _____ % | [ ][ ] | [R][ ] |

**EPA** **EPA FORM R**

## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Release (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|
| | A.1 Reporting Ranges 0 / 1–499 / 500–999 | A.2 Enter Estimate | | |
| 5.3 Discharges to receiving streams or water bodies (Enter letter code for stream from Part I Section 3.10 in the box provided.) | 5.3.___ ☐ 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| | 5.3.___ ☐ 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| | 5.3.___ ☐ 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| | A.1 Reporting Ranges 0 / 1–499 / 500–999 | A.2 Enter Estimate | | |
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 ☐☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

Form Approved OMB No.: 2070-0093

Approval Expires: 01/91

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# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**EPA FORM R**

**PART I. FACILITY IDENTIFICATION INFORMATION**

(This space for your optional use.)

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [X] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [ ] Unsanitized

1.3 Reporting Year 19 89

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe Superintendent, Facilities

Signature: Patrick A. Tighe

Date signed: June 29, 1990

**3. FACILITY IDENTIFICATION**

3.1 Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION

Street Address: 1101 Prospect Avenue

City: Westbury

County: Nassau

State: New York

Zip Code: 11590

TRI Facility Identification Number: 11590PRKNL1101P

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe — Telephone Number (include area code): 516 334-1300 Ext. 495

3.4 Public Contact: Same as 3.3 — Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3542 b. c. d. e. f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| | 0750950 | | | 0275316 | |

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NYD131318651 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company: Perkin-Elmer Corp.

4.2 Parent Company's Dun & Bradstreet Number: 00-118-4480

*(Important: Type or print; read instructions before completing form.)*



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**PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES**

(This space for your optional use.)

## 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

## 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

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## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) 007440-50-8 |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) COPPER POWDER |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution<br>f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | b. [ ] As a formulation component | c. [X] As an article component | d. [ ] Repackaging only | |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | b. [ ] As a manufacturing aid | c. [ ] Ancillary or other use | | |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][3] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2)

| | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [X] [ ] [ ] | | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [X] [ ] [ ] | | 5.2b [ ] | |
| 5.3 Discharges to receiving streams or water bodies (Enter letter code for stream from Part I Section 3.10 in the box provided.) 5.3.1 [ ] | 5.3.1a | [N/A] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| 5.3.2 [ ] | 5.3.2a | [N/A] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [N/A] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection on-site | 5.4a | [N/A] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land on-site<br>5.5.1 Landfill | 5.5.1a | [N/A] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [N/A] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [N/A] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [N/A] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

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## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 | [N/A] [ ] [ ] | | 6.1.1b | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.1b | 6.2.1c M |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.2b | 6.2.2c M |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.3b | 6.2.3c M |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

[NA] Not Applicable (NA) - Check if no on-site treatment is applied to any wastestream containing the chemical or chemical category.

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a | 7.1b | 7.1c | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a | 7.2b | 7.2c | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a | 7.3b | 7.3c | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a | 7.4b | 7.4c | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a | 7.5b | 7.5c | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a | 7.6b | 7.6c | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a | 7.7b | 7.7c | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a | 7.8b | 7.8c | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a | 7.9b | 7.9c | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a | 7.10b | 7.10c | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal | | | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| | Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | | |
| M 7 | | | ☐ + ☐ - % | ☐☐ | R ☐ |

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## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|---|
| | | A.1 Reporting Ranges 0 1-499 500-999 | A.2 Enter Estimate | | |
| 5.3 Discharges to receiving streams or water bodies | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| | A.1 Reporting Ranges 0 1-499 500-999 | A.2 Enter Estimate | | |
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) [1] ☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) [2] ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) [2] ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) [2] ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

Form Approved OMB No.: 2070-0093

Approval Expires: 01/91

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| EPA FORM **R** | PART I. FACILITY IDENTIFICATION INFORMATION | (This space for your optional use.) |
|---|---|---|

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [X] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [ ] Unsanitized

1.3 Reporting Year: 19 89

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe Superintendent, Facilities

Signature: Patrick A. Tighe

Date signed: June 29, 1990

**3. FACILITY IDENTIFICATION**

3.1
- Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION
- Street Address: 1101 Prospect Avenue
- City: Westbury
- County: Nassau
- State: New York
- Zip Code: 11590
- TRI Facility Identification Number: 11590PRKNL1101P

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe — Telephone Number (include area code): 516 334-1300 Ext. 495

3.4 Public Contact: Same as 3.3 — Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3542 b. c. d. e. f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 0750950 | | | 0275316 | | |

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NY131318651 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company: Perkin-Elmer Corp.

4.2 Parent Company's Dun & Bradstreet Number: 00-118-4480

*(Important: Type or print; read instructions before completing form.)*



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# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

### 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

### 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) 007440-48-4 |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) COBALT POWDER |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

2. Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution; f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | d. [ ] Repackaging only | b. [ ] As a formulation component | c. [X] As an article component | |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | | b. [ ] As a manufacturing aid | c. [ ] Ancillary or other use | |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][3] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [X] [ ] [ ] | | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [X] [ ] [ ] | | 5.2b [ ] | |
| 5.3 Discharges to receiving streams or water bodies (Enter letter code for stream from Part I Section 3.10 in the box provided.) 5.3.1 [ ] | 5.3.1a | [N/A] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| 5.3.2 [ ] | 5.3.2a | [N/A] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [N/A] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection on-site | 5.4a | [N/A] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land on-site | | | | | |
| 5.5.1 Landfill | 5.5.1a | [N/A] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [N/A] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [N/A] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [N/A] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

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# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 | [ ] [N/A] [ ] | | 6.1.1b | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [N/A] [ ] | | 6.2.1b | 6.2.1c M |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [N/A] [ ] | | 6.2.2b | 6.2.2c M |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [N/A] [ ] | | 6.2.3b | 6.2.3c M |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

[N/A] Not Applicable (NA) - Check if no on-site treatment is applied to any wastestream containing the chemical or chemical category.

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a | 7.1b | 7.1c | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a | 7.2b | 7.2c | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a | 7.3b | 7.3c | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a | 7.4b | 7.4c | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a | 7.5b | 7.5c | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a | 7.6b | 7.6c | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a | 7.7b | 7.7c | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a | 7.8b | 7.8c | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a | 7.9b | 7.9c | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a | 7.10b | 7.10c | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal: Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| M 7 | | | + / - % | | R |

*(Important: Type or print; read instructions before completing form.)*



EPA

# EPA FORM R

## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|---|
| | | A.1 Reporting Ranges 0 1–499 500–999 | A.2 Enter Estimate | | |
| 5.3 Discharges to receiving streams or water bodies | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| | 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| | A.1 Reporting Ranges 0 1–499 500–999 | A.2 Enter Estimate | | |
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 ☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M☐☐ |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

Form Approved OMB No.: 2070-0093

Approval Expires: 01/91

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| EPA FORM **R** | PART I. FACILITY IDENTIFICATION INFORMATION | (This space for your optional use.) |
|---|---|---|

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

| 1. | 1.1 Are you claiming the chemical identity on page 3 trade secret? | 1.2 If "Yes" in 1.1, is this copy: | 1.3 Reporting Year |
|---|---|---|---|
| | [ ] Yes (Answer question 1.2; Attach substantiation forms.) [X] No (Do not answer 1.2; Go to question 1.3.) | [ ] Sanitized [ ] Unsanitized | 19 89 |

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe Superintendent, Facilities

Signature: Patrick A. Tighe Date signed: June 29, 1990

## 3. FACILITY IDENTIFICATION

| | | |
|---|---|---|
| 3.1 | Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION | |
| | Street Address: 1101 Prospect Avenue | |
| | City: Westbury | County: Nassau |
| | State: New York | Zip Code: 11590 |
| | TRI Facility Identification Number: 11590PRKNL1101P | |

**WHERE TO SEND COMPLETED FORMS:**

1. **EPCRA REPORTING CENTER**
   **P.O. BOX 23779**
   **WASHINGTON, DC 20026-3779**
   **ATTN: TOXIC CHEMICAL RELEASE INVENTORY**

2. **APPROPRIATE STATE OFFICE (See instructions in Appendix G)**

| | | |
|---|---|---|
| 3.2 | This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility. | |
| 3.3 | Technical Contact: Patrick A. Tighe | Telephone Number (include area code): 516 334-1300 Ext. 495 |
| 3.4 | Public Contact: Same as 3.3 | Telephone Number (include area code): |

| 3.5 | SIC Code (4 digit) | | | | | |
|---|---|---|---|---|---|---|
| | a. 3542 | b. | c. | d. | e. | f. |

| 3.6 | Latitude | | | Longitude | | |
|---|---|---|---|---|---|---|
| | Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| | 0750950 | | | 0275316 | | |

| | | |
|---|---|---|
| 3.7 | Dun & Bradstreet Number(s) a. 057731663 | b. |
| 3.8 | EPA Identification Number(s) (RCRA I.D. No.) a. NYD131318651 | b. |
| 3.9 | NPDES Permit Number(s) a. | b. |
| 3.10 | Receiving Streams or Water Bodies (enter one name per box) a. N/A | b. |
| | c. | d. |
| | e. | f. |
| 3.11 | Underground Injection Well Code (UIC) Identification Number(s) a. N/A | b. |

## 4. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| 4.1 | Name of Parent Company: Perkin-Elmer Corp. | 4.2 | Parent Company's Dun & Bradstreet Number: 00-118-4480 |

*(Important: Type or print; read instructions before completing form.)*



EPA

# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

### 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

### 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) 007440-02-5 |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) NICKEL POWDER |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution; f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | d. [ ] Repackaging only | b. [ ] As a formulation component | c. [X] As an article component | |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | | b. [ ] As a manufacturing aid | c. [ ] Ancillary or other use | |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][4] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2)

| | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [X] [ ] [ ] | | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [X] [ ] [ ] | | 5.2b [ ] | |
| 5.3 Discharges to receiving streams or water bodies (Enter letter code for stream from Part I Section 3.10 in the box provided.) 5.3.1 [ ] | 5.3.1a | [N/A] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| 5.3.2 [ ] | 5.3.2a | [N/A] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [N/A] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection on-site | 5.4a | [N/A] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land on-site | | | | | |
| 5.5.1 Landfill | 5.5.1a | [N/A] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [N/A] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [N/A] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [N/A] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) [1] [ ] | [N/A] [ ] [ ] | | 6.1.1b [ ] | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) [2] [ ] | [N/A] [ ] [ ] | | 6.2.1b [ ] | 6.2.1c [M] [ ] [ ] |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) [2] [ ] | [N/A] [ ] [ ] | | 6.2.2b [ ] | 6.2.2c [M] [ ] [ ] |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) [2] [ ] | [N/A] [ ] [ ] | | 6.2.3b [ ] | 6.2.3c [M] [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

[NA] Not Applicable (NA) - Check if no on-site treatment is applied to any wastestream containing the chemical or chemical category.

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a [ ] | 7.1b [ ][ ][ ] | 7.1c [ ] | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a [ ] | 7.2b [ ][ ][ ] | 7.2c [ ] | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a [ ] | 7.3b [ ][ ][ ] | 7.3c [ ] | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a [ ] | 7.4b [ ][ ][ ] | 7.4c [ ] | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a [ ] | 7.5b [ ][ ][ ] | 7.5c [ ] | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a [ ] | 7.6b [ ][ ][ ] | 7.6c [ ] | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a [ ] | 7.7b [ ][ ][ ] | 7.7c [ ] | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a [ ] | 7.8b [ ][ ][ ] | 7.8c [ ] | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a [ ] | 7.9b [ ][ ][ ] | 7.9c [ ] | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a [ ] | 7.10b [ ][ ][ ] | 7.10c [ ] | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal: Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| [M] [7] | _____ | _____ | [ ] + [ ] - _____ % | [ ] [ ] | [R] [ ] |

EPA

# EPA FORM R

## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A. Total Release (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|
| 5.3 Discharges to receiving streams or water bodies 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 ☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

Form Approved OMB No.: 2070-0093

Approval Expires: 01/91

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| EPA FORM **R** | PART I. FACILITY IDENTIFICATION INFORMATION | (This space for your optional use.) |
|---|---|---|

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [X] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [ ] Unsanitized

1.3 Reporting Year 19 89

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe Superintendent, Facilities

Signature: Patrick A. Tighe Date signed: June 29, 1990

**3. FACILITY IDENTIFICATION**

3.1
- Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION
- Street Address: 1101 Prospect Avenue
- City: Westbury
- County: Nassau
- State: New York
- Zip Code: 11590
- TRI Facility Identification Number: 11590PRKNL1101P

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe — Telephone Number (include area code): 516 334-1300 Ext. 495

3.4 Public Contact: Same as 3.3 — Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3542 b. c. d. e. f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 0750950 | | | 0275316 | | |

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NYD131318651 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company: Perkin-Elmer Corp. — 4.2 Parent Company's Dun & Bradstreet Number: 00-118-4480

*(Important: Type or print; read instructions before completing form.)*



EPA

# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

### 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

### 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) 007440-47-3 |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) CHROMIUM (III) POWDER |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution; f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | d. [ ] Repackaging only | b. [ ] As a formulation component | | c. [X] As an article component |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | | b. [ ] As a manufacturing aid | | c. [ ] Ancillary or other use |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][3] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [X] [ ] [ ] | | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [X] [ ] [ ] | | 5.2b [ ] | |
| 5.3 Discharges to receiving streams or water bodies 5.3.1 [ ] | 5.3.1a | [N/A] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) 5.3.2 [ ] | 5.3.2a | [N/A] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [N/A] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection on-site | 5.4a | [N/A] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land on-site | | | | | |
| 5.5.1 Landfill | 5.5.1a | [N/A] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [N/A] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [N/A] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [N/A] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 [ ][ ][ ][ ][ ] | [N/A] [ ] [ ] | | 6.1.1b [ ] | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 [ ][ ][ ][ ][ ] | [N/A] [ ] [ ] | | 6.2.1b [ ] | 6.2.1c M [ ][ ] |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 [ ][ ][ ][ ][ ] | [N/A] [ ] [ ] | | 6.2.2b [ ] | 6.2.2c M [ ][ ] |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 [ ][ ][ ][ ][ ] | [N/A] [ ] [ ] | | 6.2.3b [ ] | 6.2.3c M [ ][ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

[N/A] Not Applicable (NA) - Check if no on-site treatment is applied to any wastestream containing the chemical or chemical category.

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a [ ] | 7.1b [ ][ ][ ] | 7.1c [ ] | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a [ ] | 7.2b [ ][ ][ ] | 7.2c [ ] | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a [ ] | 7.3b [ ][ ][ ] | 7.3c [ ] | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a [ ] | 7.4b [ ][ ][ ] | 7.4c [ ] | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a [ ] | 7.5b [ ][ ][ ] | 7.5c [ ] | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a [ ] | 7.6b [ ][ ][ ] | 7.6c [ ] | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a [ ] | 7.7b [ ][ ][ ] | 7.7c [ ] | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a [ ] | 7.8b [ ][ ][ ] | 7.8c [ ] | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a [ ] | 7.9b [ ][ ][ ] | 7.9c [ ] | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a [ ] | 7.10b [ ][ ][ ] | 7.10c [ ] | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal: Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| M 7 | _____ | _____ | [ ] + [ ] - _____ % | [ ][ ] | R [ ] |

**EPA** **EPA FORM R**

## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A. Total Release (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|
| 5.3 Discharges to receiving streams or water bodies (Enter letter code for stream from Part I Section 3.10 in the box provided.) 5.3.___ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b | 5.3.___c % |
| 5.3.___ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b | 5.3.___c % |
| 5.3.___ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 | [ ] [ ] [ ] | | 6.1.___b | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | | 6.2.___b | 6.2.___c M |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | | 6.2.___b | 6.2.___c M |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | | 6.2.___b | 6.2.___c M |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

Form Approved OMB No.: 2070-0093
Approval Expires: 01/91

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| EPA FORM **R** | PART I. FACILITY IDENTIFICATION INFORMATION | (This space for your optional use.) |
|---|---|---|

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [X] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [ ] Unsanitized

1.3 Reporting Year: 19 89

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe Superintendent, Facilities

Signature: Patrick A. Tighe Date signed: June 29, 1990

**3. FACILITY IDENTIFICATION**

3.1
- Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION
- Street Address: 1101 Prospect Avenue
- City: Westbury
- County: Nassau
- State: New York
- Zip Code: 11590
- TRI Facility Identification Number: 11590PRKNL1101P

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe — Telephone Number (include area code): 516 334-1300 Ext. 495

3.4 Public Contact: Same as 3.3 — Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3542 b. c. d. e. f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 0 | 75 | 0950 | 0 | 27 | 5316 |

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NYD131318651 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company: Perkin-Elmer Corp. — 4.2 Parent Company's Dun & Bradstreet Number: 00-118-4480

*(Important: Type or print; read instructions before completing form.)*



EPA

# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

### 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

### 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

1.1 [Reserved]

1.2 CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.)
7429-90-5

1.3 Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.)
ALUMINUM

1.4 Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.)

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

2. Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution; f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | d. [ ] Repackaging only | b. [ ] As a formulation component | | c. [X] As an article component |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | | b. [ ] As a manufacturing aid | | c. [ ] Ancillary or other use |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][4] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2)

| | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [X] [ ] [ ] | | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [X] [ ] [ ] | | 5.2b [ ] | |
| 5.3 Discharges to receiving streams or water bodies | 5.3.1 [ ] | 5.3.1a [N/A] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) | 5.3.2 [ ] | 5.3.2a [N/A] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| | 5.3.3 [ ] | 5.3.3a [N/A] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection on-site | | 5.4a [N/A] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land on-site | | | | | |
| 5.5.1 Landfill | | 5.5.1a [N/A] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | | 5.5.2a [N/A] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | | 5.5.3a [N/A] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | | 5.5.4a [N/A] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 | [N/A] [ ] [ ] | | 6.1.1b [ ] | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.1b [ ] | 6.2.1c M [ ] [ ] |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.2b [ ] | 6.2.2c M [ ] [ ] |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 | [N/A] [ ] [ ] | | 6.2.3b [ ] | 6.2.3c M [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

[N/A] Not Applicable (NA) - Check if no on-site treatment is applied to any wastestream containing the chemical or chemical category.

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a [ ] | 7.1b [ ] [ ] [ ] | 7.1c [ ] | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a [ ] | 7.2b [ ] [ ] [ ] | 7.2c [ ] | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a [ ] | 7.3b [ ] [ ] [ ] | 7.3c [ ] | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a [ ] | 7.4b [ ] [ ] [ ] | 7.4c [ ] | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a [ ] | 7.5b [ ] [ ] [ ] | 7.5c [ ] | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a [ ] | 7.6b [ ] [ ] [ ] | 7.6c [ ] | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a [ ] | 7.7b [ ] [ ] [ ] | 7.7c [ ] | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a [ ] | 7.8b [ ] [ ] [ ] | 7.8c [ ] | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a [ ] | 7.9b [ ] [ ] [ ] | 7.9c [ ] | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a [ ] | 7.10b [ ] [ ] [ ] | 7.10c [ ] | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|
| M 7 | Current reporting year (pounds/year) _____ Prior year (pounds/year) _____ Or percent change (Check (+) or (-)) [ ] + [ ] - _____ % | [ ] [ ] | R [ ] |

EPA

# EPA FORM R

## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A. Total Release (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|---|---|
| 5.3 Discharges to receiving streams or water bodies | 5.3.___ | 5.3.___a | [ ] [ ] [ ] | | 5.3.___b | 5.3.___c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) | 5.3.___ | 5.3.___a | [ ] [ ] [ ] | | 5.3.___b | 5.3.___c % |
| | 5.3.___ | 5.3.___a | [ ] [ ] [ ] | | 5.3.___b | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 | [ ] [ ] [ ] | | 6.1.___b | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | | 6.2.___b | 6.2.___c M |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | | 6.2.___b | 6.2.___c M |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | | 6.2.___b | 6.2.___c M |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

report w/ original signature
to EPA

final report 1989

**PERKIN ELMER**

The Perkin-Elmer Corporation
Metco Division
1101 Prospect Avenue
Westbury, New York 11590
Phone (516) 334-1300
Fax (516) 334-6692
Telex 967759

June 29, 1990

EPCRA Reporting Center
Toxic Chemical Release Inventory
470 L'Enfant Plaza East
Suite 7103, SW
Washington, DC 20024

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions please feel free to contact me at the above number.

Very truly yours,

Patrick A. Tighe
Superintendent
Facilities Coordination

PAT:ecb
Enclosures
cc: A. Mazzone

**PERKIN ELMER**

The Perkin-Elmer Corporation
Metco Division
1101 Prospect Avenue
Westbury, New York 11590
Phone (516) 334-1300
Fax (516) 334-6692
Telex 967759

June 29, 1990

New York State Emergency
Response Commission
NYS Dept. of Environmental
Conservation
Bureau of Spill Response
50 Wolf Road/Room 326
Albany, NY 12233-3510

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Form

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions please feel free to contact me at the above number.

Very truly yours,

Patrick A. Tighe
Superintendent
Facilities Coordination

PAT:ecb
Enclosures
cc: A. Mazzone

# SULZER METCO

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone: (516) 334-1300
Fax: (516) 338-2488

July 31, 1995

Local Emergency Planning Committee
c/o Civil Preparedness Office
140 15th Street
Mineola, NY 11501

Subject: Toxic Chemical Release Inventory
Reporting Form R

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our Prospect Avenue and Miller Place facilities.

Please note that as of September 30, 1994, the three properties on Long Island owned by the Perkin-Elmer Corporation, doing business as the Metco division of Perkin-Elmer, were sold by Perkin-Elmer to Sulzer Metco (US), Inc., a Delaware Corporation having a principal place of business at the Prospect Avenue facility. We hope that our delayed reporting has not caused any inconvenience.

Please call me if you have any questions or require clarification.

Very truly yours,

Joseph D. Reardon, Ph.D.
Global Quality
Phone: (516) 338-2316
FAX: (516) 338-2336

JR/clc
Enclosure

c: Mario H. Kyd, Sulzer Metco
Daniel Moraschetti, Sulzer Metco
Constance L. Conroy, Sulzer Metco



METCO AMDRY

DL ROTHBERG & ASSOCIATES, P.C.
COUNSELLORS AT LAW

230 PARK AVENUE, SUITE 615
NEW YORK, NEW YORK 10169
TEL. 212 • 490 • 2220
FAX 212 • 490 • 2338

April 27, 1999

**BY TELECOPY & REGULAR MAIL**

Richard G. Rudolf, Esq.
Vice President, General Counsel
Sulzer US Industries Holding, Inc.
555 Fifth Avenue
New York, New York 10017

**Re: 325 Duffy Avenue, Hicksville, New York**

Dear Mr. Rudolf:

We are in receipt of your telecopy letter dated April 26, 1999, enclosing a letter report prepared by Arcadis Geraghty & Miller ("Arcadis") dated April 20, 1999 with respect to the investigation and remediation performed at the above-referenced property.

We have forwarded the Arcadis April 20, 1999 report to ERM Northeast to review on behalf of First Industrial, L.P. ("FILP"), and will respond to your request for concurrence with Arcadis' recommendations as soon as possible.

However, we note that we lack several documents, without which ERM will not be able to complete their review:

1. The April 20, 1999 report refers to an earlier report, dated November 3, 1998, which is described as providing "a complete summary of the findings and remediation effort for Sumps 1 and 2." We have not received a copy of the November 3, 1998 report and request that you provide this document as soon as possible. We anticipate that the November 3, 1998 report will document the replacement of the leaking sumps with new sumps, and will include the analytical results for the post-excavation sampling and documentation of the proper disposal of the soils removed from the areas of Sumps 1 and 2.

2. In the event that the November 3, 1998 letter report does not include the post-excavation sampling results or documentation of the disposal of the soils, we specifically request that Sulzer Metco provide this information.

DL ROTHBERG & ASSOCIATES, P.C.
COUNSELLORS AT LAW



Finally, before ERM begins its review, we would like Arcadis to clarify the recommendations in the April 20, 1999 report. The report appears to suggest that all three sumps and the associated piping be removed from the building. Reference is made to replacement of the concrete floor above Sump 2, but not Sumps 1 and 3. Please confirm that the floor would be restored above all three sumps.

In addition, we note that no mention is made of removal of impacted soils adjacent to or beneath Sump 3. Elevated levels of chromium, copper, lead, mercury, nickel and zinc exceeding the NYSDEC TAGM 4046 criteria were detected in the two to four foot interval below floor surface in the area of this Sump. Is Arcadis recommending that upon the removal of Sump 3, these soils be left in place?

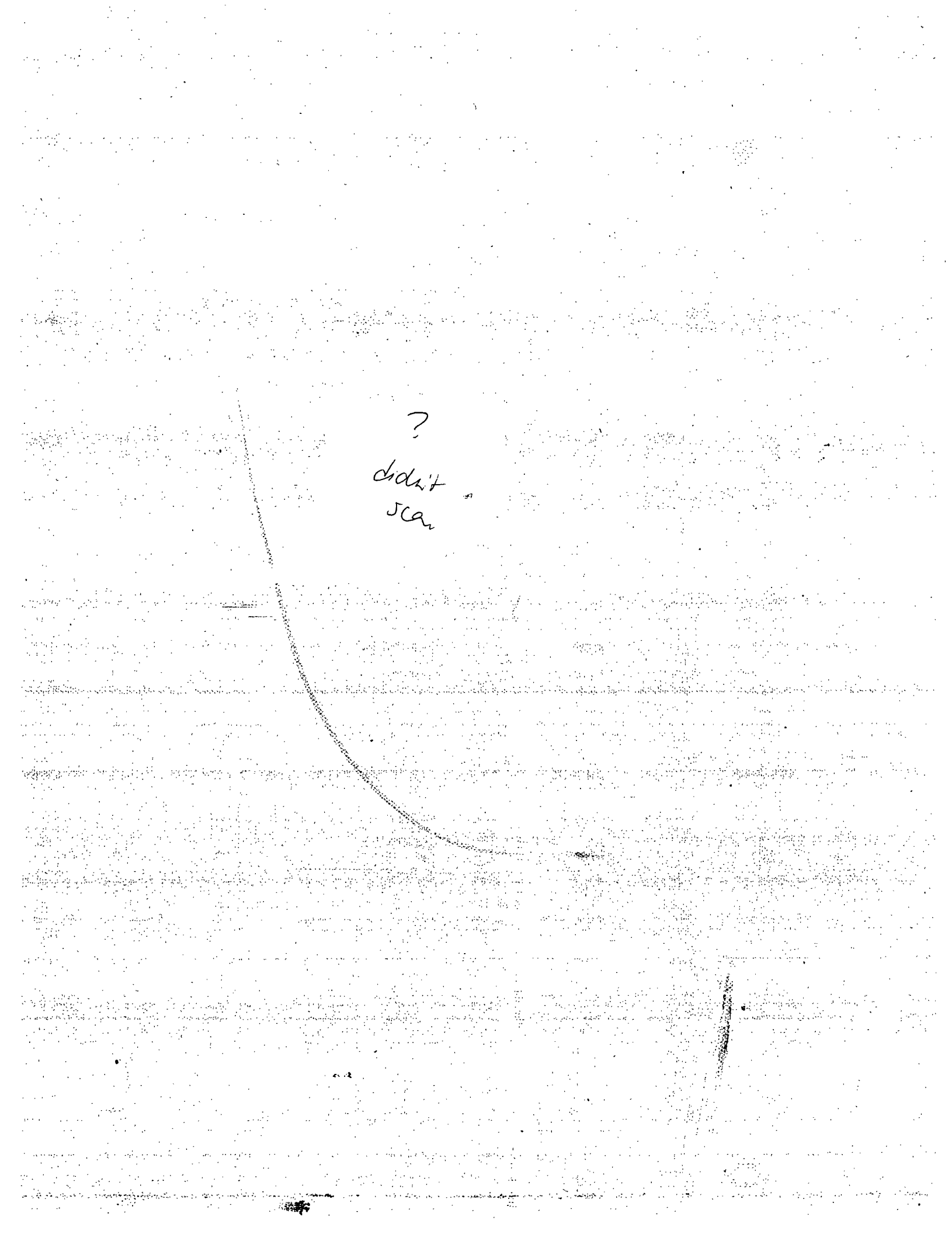
We would very much appreciate a copy of the November 3, 1998 letter report and a response to our questions at your earliest convenience.

Very truly yours,

Sarah P. Flanagan

Sarah P. Flanagan

cc: Mr. Jeffrey Cohen
Mr. Jon Raleigh
Harry Szenicer, Esq.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didn't
scan

# CLADDING NON-NICKEL WASTE

## Non-RCRA Hazardous Waste

Sulzer Metco (US), Inc.
1101 Prospect Avenue
Westbury, NY 11590

Date: _____

Drum #: _____

Products: _____

Gross Weight: _____

**Caution: May contain nickel, cobalt, chromium metal, aluminum, ceramics and other metal powders. May cause cancer. May cause sensitization and irritation.**

11/2/05

# FLOOR SWEEPINGS

## Non-RCRA Hazardous Waste

Sulzer Metco (US), Inc.
1101 Prospect Avenue
Westbury, NY 11590

Date: _____

Drum #: _____

Department: _____

Gross Weight: _____

**Caution: May contain nickel, cobalt, chromium metal, aluminum, ceramics and other metal powders. May cause cancer. May cause sensitization and irritation.**

11/2/05

# Dust Collector L

# GENERAL EXHAUST WASTE

## Non-RCRA Hazardous Waste

Sulzer Metco (US), Inc.
1101 Prospect Avenue
Westbury, NY 11590

Date: _____

Drum #: _____

Gross Weight: _____

**Caution: May contain nickel, cobalt, chromium metal, aluminum, ceramics and other metal powders. May cause cancer. May cause sensitization and irritation.**

11/2/05

# Dust Collector H

# CLADDING EXHAUST WASTE

## Non-RCRA Hazardous Waste

Sulzer Metco (US), Inc.
1101 Prospect Avenue
Westbury, NY 11590

Date: _____

Drum #: _____

Gross Weight: _____

**Caution: May contain nickel, cobalt, chromium metal, aluminum, ceramics and other metal powders. May cause cancer. May cause sensitization and irritation.**

11/2/05

# TUNGSTEN SCRAP FOR OUTSIDE RECOVERY

Sulzer Metco (US), Inc.
1101 Prospect Avenue
Westbury, NY 11590

Date: _____

Drum #: _____

Category:

Net Weight:

1 - Low cobalt _____

2 – Wet _____

3 – W O/S Baghouse _____

4 – High cobalt _____

Gross Weight: _____

**Caution: Contains tungsten carbide cobalt. May contain chromium metal, ceramics and other metal powders. May cause cancer. May cause sensitization and irritation.**

11/2/05

# WET CERAMIC WASTE

## Non-RCRA Hazardous Waste

Sulzer Metco (US), Inc.
1101 Prospect Avenue
Westbury, NY 11590

Date: _____

Drum #: _____

Gross Weight: _____

**Caution: Contains ceramics. May contain traces of nickel, cobalt, chromium metal, aluminum, May cause irritation.**

11/2/05

# Dust Collector N

# TOWER 1 WASTE

# Non-RCRA Hazardous Waste

Sulzer Metco (US), Inc.
1101 Prospect Avenue
Westbury, NY 11590

Date: _____

Drum #: _____

Gross Weight: _____

**Caution: Contains ceramics. May contain traces of nickel, cobalt, chromium metal, aluminum, May cause irritation.**

11/2/05

# DRY CERAMIC WASTE

## Non-RCRA Hazardous Waste

Sulzer Metco (US), Inc.
1101 Prospect Avenue
Westbury, NY 11590

Date: _____

Drum #: _____

Gross Weight: _____

**Caution: Contains ceramics. May contain traces of nickel, cobalt, chromium metal, aluminum, May cause irritation.**

11/2/05

# NICKEL SCRAP
# FOR OUTSIDE RECOVERY

Sulzer Metco (US), Inc.
1101 Prospect Avenue
Westbury, NY 11590

Date: _____

Drum #: _____

| Product Name: | Job #: | Net Weight: |
|---|---|---|
| 1 _____ | _____ | _____ |
| 2 _____ | _____ | _____ |
| 3 _____ | _____ | _____ |

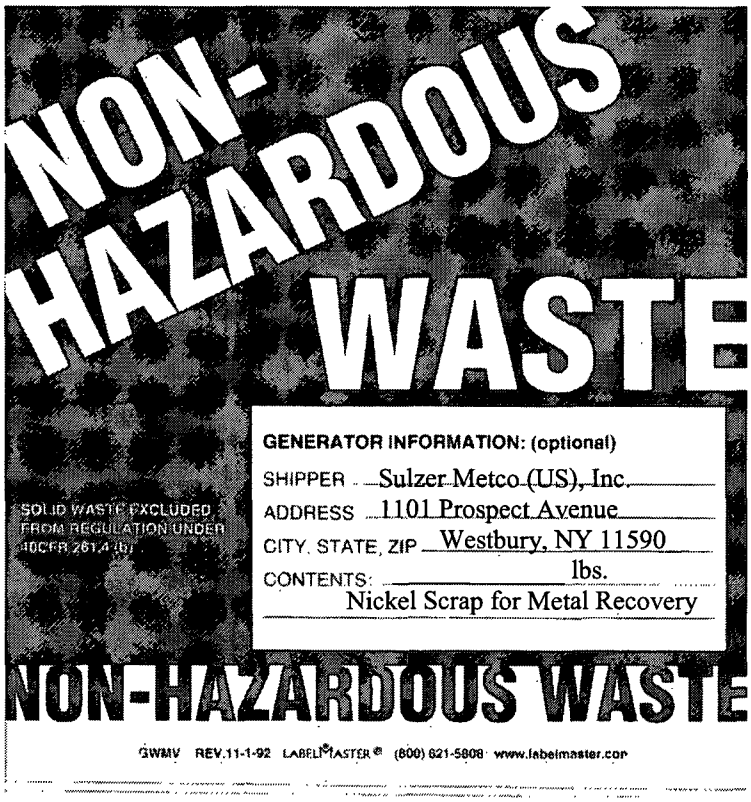
Gross Weight: _____

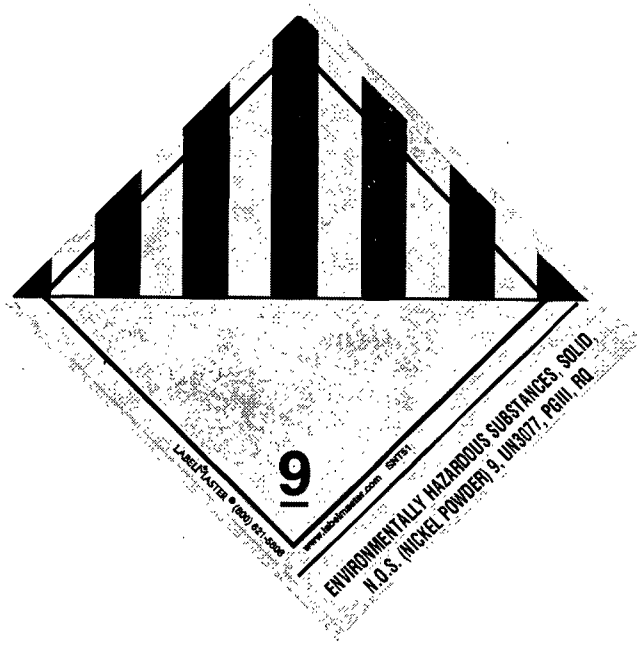
**Caution: Contains nickel. May contain cobalt, chromium metal, aluminum, molybdenum, iron and other metal powders. May cause cancer. May cause sensitization and irritation.**

11/2/05

## Cladding Nickel Scrap:

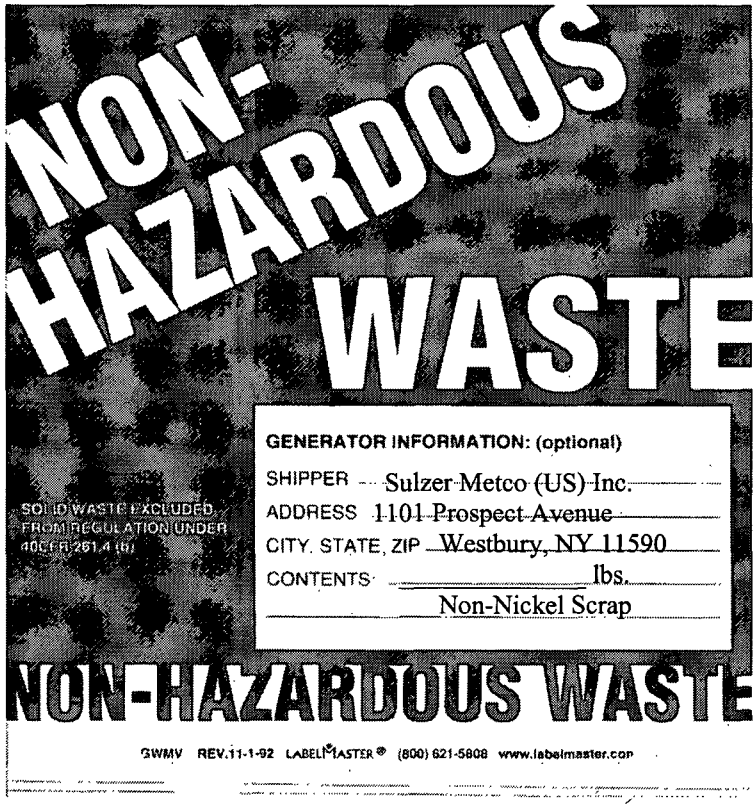
1. Accumulate nickel scrap in open top drum with UN mark: UN 1A2/Y250/S/04/USA/M5618
2. When drum is filled, clamp lid closed.
3. Weigh the filled drum.
4. Attach the following labels and complete as shown.
5. Add the full drum weight on the green label as shown.
6. Transfer the drum to the Nickel Scrap storage area.



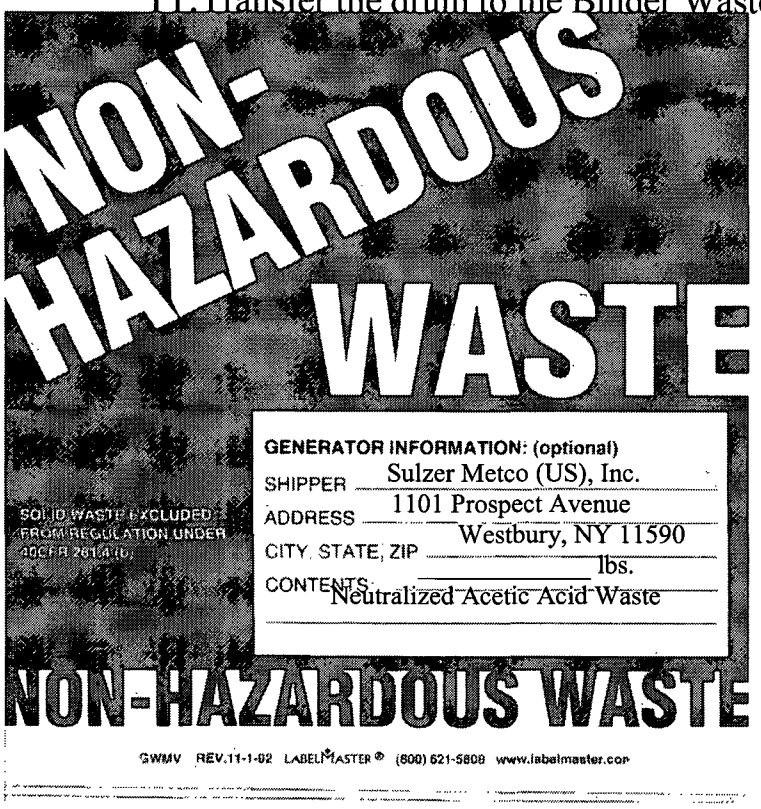
## Cladding Non-Nickel Scrap:

1. Accumulate non-nickel scrap in gray colored, empty, open top Alcoa aluminum powder. Be sure all writing is painted over.
2. When drum is filled, clamp lid closed.
3. Weigh the filled drum.
4. Attach the following labels and complete as shown.
5. Add the full drum weight on the green label as shown.
6. Transfer the drum to the Non-Nickel Scrap storage area.



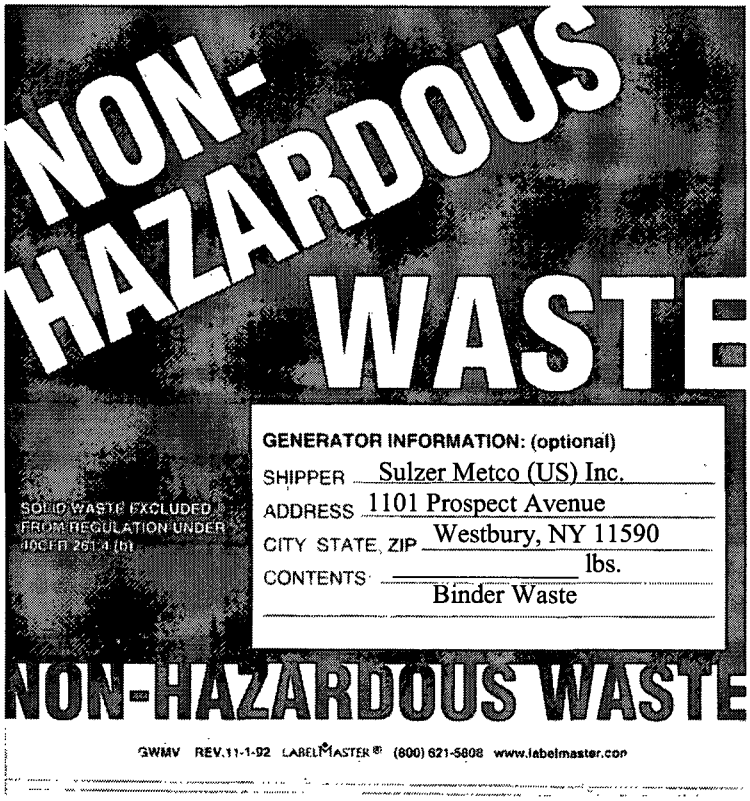
## Cladding Acetic Acid Waste:

1. Accumulate neutralized acetic acid waste into a clean, white plastic drum supplied by Facilities.
2. Whenever a glass jug of acetic acid is emptied, use a plastic wash bottle to squirt water into the jug. Add about 100 ml of water, being sure to wash down the sides.
3. Add about 100 grams of baking soda to the jug. Swirl the solution, being careful not to spill the liquid.
4. Measure the pH with pH paper strips. If the pH is greater than 2.5, transfer the liquid to the holding drum. Otherwise, add more baking soda until the pH is greater than 2.5.
5. After emptying the neutralized acetic acid jug, spray paint over the labeling of the jug.
6. The jugs may be accumulated in their original carton. The labeling on the carton must also be spray painted over. The carton and contents may be disposed in the trash compactor.
7. When the drum is filled, be sure to close both bungs.
8. Weigh the filled drum.
9. Attach the following label and complete as shown.
10. Add the full drum weight on the green label as shown.
11. Transfer the drum to the Binder Waste storage area.



## Cladding Binder Waste Liquid:

1. Accumulate binder waste into a clean, white plastic drum supplied by Facilities.
2. When drum is filled, be sure to close both bungs.
3. Weigh the filled drum.
4. Attach the following label and complete as shown.
5. Add the full drum weight on the green label as shown.
6. Transfer the drum to the Binder Waste storage area.



# EPA FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

United States Environmental Protection Agency

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI FACILITY ID NUMBER: 11590PRKNL1101P

Toxic Chemical, Category, or Generic Name: ALUMINUM POWDER

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 92

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?

[ ] Yes (Answer question 2.2; Attach substantiation forms)

[X] No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy:

[ ] Sanitized [X] Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official:

JOE MACRI, MANAGER FACILITIES

Signature:

Date Signed: June 30, 1993

**SECTION 4. FACILITY IDENTIFICATION**

4.1

Facility or Establishment Name: METCO DIVISION PERKIN-ELMER

TRI Facility ID Number: 11590PRKNL1101P

Street Address: 1101 Prospect Avenue

City: Westbury

County: Nassau

State: New York

Zip Code: 11590

Mailing Address (if different from street address):

City:

State:

Zip Code:

PUT LABEL HERE

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | | | b. [X] Part of a facility | | |
| 4.3 | Technical Contact | Name: JOE MACRI | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.4 | Public Contact | Name: JOE MACRI | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.5 | SIC Code (4-digit) | a. 3542 | b. | c. | d. | e. | f. |
| 4.6 | Latitude and Longitude | Latitude: Degrees | Minutes | Seconds | Longitude: Degrees | Minutes | Seconds |
| | | 075 | 09 | 50 | 027 | 53 | 16 |

| | | |
|---|---|---|
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a. 05-773-1663<br>b. |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a. NYD131318651<br>b. |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a. N/A<br>b. |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a. N/A<br>b. |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company<br>☐ NA | PERKIN-ELMER CORPORATION |
| 5.2 | Parent Company's Dun & Bradstreet Number<br>☐ NA (9 digits) | 00-118-4480 |

EPA
United States Environmental Protection Agency

# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7429-90-5 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | ALUMINUM (FUME OR DUST) |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.) |
| | N/A |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |
| | N/A |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | |
|---|---|---|---|
| 3.1 | Manufacture the toxic chemical: | a. ☐ Produce<br>b. ☐ Import | If produce or import:<br>c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | Process the toxic chemical: | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. ☐ As an article component<br>d. ☐ Repackaging |
| 3.3 | Otherwise use the toxic chemical: | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☒ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 | (Enter two-digit code from instruction package.) |

W/C



EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/ year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | [X] NA | | | |
| 5.2 | Stack or point air emissions | [X] NA | | | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name: N/A | | | | |
| 5.3.2 | Stream or Water Body Name: N/A | | | | |
| 5.3.3 | Stream or Water Body Name: N/A | | | | |
| 5.4 | Underground injections on-site | [X] NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | [X] NA | | | |
| 5.5.2 | Land treatment/ application farming | [X] NA | | | |
| 5.5.3 | Surface impoundment | [X] NA | | | |
| 5.5.4 | Other disposal | [X] NA | | | |

[ ] Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = 1
C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 Discharges to receiving streams or water bodies (enter one name per box) | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |

## SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| N/A | |

**6.1.B POTW Name and Location Information**

| 6.1.B.__ POTW Name | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

**If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Sections 5.3/6.1 page this is, here. [ ] (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 11 C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL 1101P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2.__ Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: LONI - JD SCRAP METAL

Street Address: 70 KINKEL STREET

City: WESTBURY | County: NASSAU

State: NY | Zip Code: 11590 | Is location under control of reporting facility or parent company? ☐ Yes ☒ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. B | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2.__ Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: N/A

Street Address:

City: | County:

State: | Zip Code: | Is location under control of reporting facility or parent company? ☐ Yes ☐ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box ☐ and indicate which Part II, Section 6.2 page this is, here. ☐ (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 11
C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11690PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

☒ **Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.**

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes ☐ No ☐ |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes ☐ No ☐ |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes ☐ No ☐ |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes ☐ No ☐ |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes ☐ No ☐ |

**If additional copies of page 7 are attached, indicate the total number of pages in this box ☐ and indicate which page 7 this is, here. ☐ (example: 1, 2, 3, etc.)**

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL 1101 P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

### SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☒ **Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.**

Energy Recovery Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ]

### SECTION 7C. ON-SITE RECYCLING PROCESSES

☒ **Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.**

Recycling Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 [ ]

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | *All quantity estimates can be reported using up to two significant figures.* | Column A 1991 (pounds/year) | Column B 1992 (pounds/year) | Column C 1993 (pounds/year) | Column D 1994 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released * | .0 | .0 | 1.0 | .0 |
| 8.2 | Quantity used for energy recovery on-site | 0 | 0 | 0 | 0 |
| 8.3 | Quantity used for energy recovery off-site | 0 | 0 | 0 | 0 |
| 8.4 | Quantity recycled on-site | 0 | 0 | 0 | 0 |
| 8.5 | Quantity recycled off-site | 30 | 170 | 170 | 170 |
| 8.6 | Quantity treated on-site | 0 | 0 | 0 | 0 |
| 8.7 | Quantity treated off-site | 0 | 0 | 0 | 0 |

| | | |
|---|---|---|
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | N/A |
| 8.9 | Production ratio or activity index | .95 |

| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | |
|---|---|---|---|---|
| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
| 8.10.1 | W19 | a. T04 | b. | c. |
| 8.10.2 | W29 | a. T04 | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | YES | NO |
|---|---|---|---|
| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | ☐ | ☒ |

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

METCO
a division of
PERKIN ELMER

METCO, PERKIN-ELMER
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201
(516) 334-1300
EMERGENCY RESPONSE: CHEMTREC
INSIDE CONTINENTAL U.S. 800-424-9300
OUTSIDE CONTINENTAL U.S. 202-483-7616

# MATERIAL SAFETY DATA SHEET

Product Name: METCOSEAL SA MSDS# 50-260

## SECTION I

Trade Name: ACRYLIC SILICONE

Date of Issue: September 7, 1987

Revision Date: January 18, 1988

## SECTION II — COMPOSITION AND TOXICITY DATA

| Composition | CAS# | OSHA PEL | ACGIH TLV | OTHER LIMITS RECOMMENDED |
|---|---|---|---|---|
| Isobutyl Acetate | 110-19-0 | 150 ppm | 150 ppm | |
| Diacetone Alcohol | 123-42-2 | 50 ppm | 50 ppm | |
| (Acetone free) | | | | |
| Xylene | 1330-20-7 | 100 ppm | 100 ppm | STEL 150 ppm |
| Butyl Cellosolve | 111-76-2 | 50 ppm | 25 ppm | |
| Methyl Ethyl Ketone | 78-93-3 | 200 ppm | 200 ppm | STEL 300 ppm |
| Denatured Ethyl Alcohol | 64-17-5 | 1000 ppm | 1000 ppm | |
| Toluene | 108-88-3 | 200 ppm | 100 ppm | STEL 150 ppm |
| Skelly-Solv S | | N/A | N/A | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## SECTION III — PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling Point: (°F) | 173-395 | Specific Gravity ($H_2O$=1): | N/A |
| Vapor Pressure (mmHg): | N/A | Melting Point: | N/A |
| Solubility in Water: | Neg. | Evaporation Rate: | Slower than ether. |
| Appearance and Odor: | N/A | Vapor Density (AIR = 1): | Heavier than air. |

## SECTION IV — FIRE AND EXPLOSION HAZARD DATA

| Flash Point (Method Used): | Flammable Limits | LEL | UEL |
|---|---|---|---|
| 36°F CC | N/A | N/A | N/A |

Extinguishing Media: Use National Fire Protection Association (NFPA) Clas B extinguishers (Carbon Dioxide, Dry Chemical or Foam) designed to extinguish NFPA Class 1B flammable liquid fires.

Special Fire Fighting Procedures: Water spray may be ineffective. Water may be used to cool closed containers to prevent pressure build up and possible autoignition or explosion when exposed to extreme heat. If water is used, fog nozzles are preferrable.

Unusual Fire and Explosion Hazards: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Closed container may explode when exposed to extreme heat. Do not apply to hot surfaces.

| SECTION V | REACTIVITY DATA | | 50-260 |
|---|---|---|---|
| Stability | Unstable | | |
| | Stable | X | |

Incompatibility (Materials to Avoid): N/A

| | | | |
|---|---|---|---|
| Hazardous Decomposition Products: | May produce hazardous fumes when heated to decomposition as in welding. Fumes may contain carbon monoxide and oxides of nitrogen. | | |
| Hazardous Polymerization | May Occur | | |
| | Will Not Occur | X | |

SECTION VI HEALTH HAZARD DATA

Summary of Risks:

ISOBUTYL ACETATE: A skin, eye irritant. Low oral, inhalation. See also esters. Upon absorption it can hydrolyze to acetic acid and isobutanol.

DIACETONE ALCOHOL: A human irritant. Moderate via oral and intraperitoneal exposure route. Irritant to eyes and mucous membrane. Narcotic in high concentration. Experiment has caused anemia and damage to kidneys and liver.

XYLENE: Dizziness, excitement, drowsiness, incoordination, staggering gait; irritation to eyes, nose, throat; corneal vacuolization; anorexia, nausea, vomit, abdominal pain; dermatitis.

NUTYL CELLOSOLVE: High human inhalation irritant. High intravenous, oral and skin. Moderate oral, intraperitoneal, inhalation, subcutaneous and skin. Mild skin, eye irritant.

METHYL ETHYL KETONE: Moderate irritation affects via oral route; low via dermal routes. A strong irritation. Affects peripheral nervous system, central nervous system is an experiment TER. Eye irritate at 350 ppm.

DENATURED ETHYL ALCOHOL: Moderate - Low via oral, intravenous and dermal routes. Probably also via inhalation route. Multiple data. The systemic effect of ethyl alcohol is rapidly oxidized in the body to carbon dioxide and water and in contrast to methyl alcohol, no cumulative effect occurs. Though ethyl alcohol possesses narcotic properties, concentration sufficient to produce this effect are not reached in industry. -continued on PAGE 5-

Medical Conditions Which May be Aggravated by Contact: N/A

Primary Entry Route(s): Respiratory system, central nervous system, eyes, gastrointestinal tract, blood, liver, kidneys and skin.

SECTION VI — HEALTH HAZARD DATA CONTINUED — 50-260

Signs and Symptoms of Overexposure:

Eye Contact: Primary irritation.

Skin Contact: Primary irritation.

Inhalation: Anesthetic. Irritation of the respitory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsiousness of coma.

Ingestion: N/A

First Aid:

Eye Contact: Flush immediately with copious amounts of running water for at least 15 minutes. Take to a physician for definitive medical treatment.

Skin Contact: Remove with soap and water. Remove contaminated clothing.

Inhalation: Expose to fresh air. Restore breathing. Keep warm and quiet.

Ingestion: Consult a physician.

SECTION VII — SPILL, LEAK AND DISPOSAL PROCEDURES

Spill/Leak Procedures: Remove all sources of ignition (flames, hot surfaces and electrical, static or frictional sparks). Avoid breathing vapors. Ventilate area. Remove with inert absorbant and non-sparkling tools.

Waste Management/Disposal: Dispose of an in accordance with local, state and federal regulations. Do not incinerate closed containers.

SECTION VIII SPECIAL PROTECTION INFORMATION 50-260

Personal Protective Equipment:

Goggles: Use safety eyewear designed to protect against splash of liquids.

Gloves: Required for prolonged or repeated contact.

Respirator: In outdoor or open areas use NIOSH approved mechanical filter respirator to remove solid air borne particles of overspray during spray application. In restricted ventilation areas use NIOSH approved chemical mechanical filters designed to remove a /combination of particulate and gas and vapor. In confined areas use NIOSH approved air line type respirators or hoods.

Other Protective Clothing or Equipment: Prevent prolonged skin contact with contaminated clothing.

Workplace Considerations:

Ventilation: Provide general dilution or local exhaust ventilation in volume and pattern to keep TLV of most hazardous ingredient in Section II below acceptable limit.

Safety Stations: Eye wash stations are recommended.

Other: N/A

SECTION IX HANDLING AND STORAGE PRECAUTIONS

Precautions to be Taken in Handling and Storage: Do not store above 120°F. Store large quantities in buildings designed for storage of NFPA Class II flammable liquids.

Other Precautions: Do not take internally. Containers should be grounded when pouring. Aviod free fall of liquid in excess of a few inches. Keep container closed when not in use!

**The information contained herein is based on available data and tests and is believed to be accurate. It is presented solely for your consideration and verification since conditions of use, storage and handling may vary.**

Summary of Risks:

DENATURED ETHYL ALCOHOL: (continued)

Exposure to concentration of 5,000-10,000 ppm results in irritation of the eyes and mucous membrane of the upper respiratory tract. If continued for an hour, stupor and drowsiness may result. Concentration below 1,000 ppm usually produce no signs of intoxication. There is no concrete evidence that repeated exposure to ethyl alcohol vapor results in cirrhosis of the liver. Large does can cause alcohol poisoning. Repeated ingestions can lead to alcoholism. It is a central nervous system depressant, causes TER, ETA, GIT, GLN in humans. Exposure to concentration of over 1,000 ppm may cause headache, irritation to eyes, nose and throat, and if long continued, drowsinesss and lassitude, loss of appetite and inability to concentrate.

TOLUENE:

Moderate inhalation, intraperitoneal, subcutaneous; high intraperitoneal; low oral, skin. Toluene is dervied from coal tar and commercial grades usually contain small amounts of benzene as an impurity. Acute poisoning, resulting from exposures to high concentration of the vapors, are rate with toluene. Inhalation of 200 ppm of toluene for 8 hours may cause impairment of coordination and reaction time; with higher concentration (up to 800 ppm) these effects are increased and are observed in a shorter time. In the few cases of acute toluene poisoning reported, the effect has been that of a narcotic, the workman passing through a stage of intoxication into one of coma. Recovery following removal from exposure has been the rule. An occasional report of chronic poisoning describes an anemia and leucopenia, with biopsy showing a bone marrow hypoplasia. These effects, however, are less common in people working with toluene and they are not as severe. At 200-500 ppm, headache, nausea, eye irritation, loss of appetite, a bad taste, lassitude, impairment of coordination and reaction time are reported, but are not usually accompanied by any laboratory or physical findings of significance. With higher concentration, the above complaints are increased and in addition, anemia, leucopenia and enlarged liver may be found in rare cases.

SKELLY-SOLV S:

Not available.

Form Approved OMB No 2070-0093
Approval Expires 01/91
Page 1 of 5

*(Important: Type or print; read instructions before completing form.)*

U.S. Environmental Protection Agency

# EPA TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

EPA FORM **R**

Section 313, Title III of The Superfund Amendments and Reauthorization Act of 1986

## PART I. FACILITY IDENTIFICATION INFORMATION

(This space for EPA use only)

1. 1.1 Does this report contain trade secret information? ☐ Yes (Answer 1.2) ☐ No (Do not answer 1.2) | 1.2 Is this a sanitized copy? ☐ Yes ☐ No | 1.3 Reporting Year

## 2. CERTIFICATION (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official

Signature | Date signed

## 3. FACILITY IDENTIFICATION

3.1 Facility or Establishment Name
Street Address
City | County
State | Zip Code

3.2 This report contains information for: (check one)
a. ☐ An entire covered facility
b. ☐ Part of a covered facility

3.3 Technical Contact | Telephone Number (include area code) ( ) -

3.4 Public Contact | Telephone Number (include area code) ( ) -

3.5 a. SIC Code | b. | c.

3.6 Latitude: Deg. Min. Sec. | Longitude: Deg. Min. Sec.

3.7 Dun & Bradstreet Number(s) a. - - | b. - - 

3.8 EPA Identification Number (RCRA I.D. No.) a. | b.

3.9 NPDES Permit Number(s) a. | b.

**Where to send completed forms:**

U.S. Environmental Protection Agency
P.O. Box 70266
Washington, DC 20024-0266
Attn: Toxic Chemical Release Inventory

3.10 Name of Receiving Stream(s) or Water Body(s)
a.
b.
c.

3.11 Underground Injection Well Code (UIC) Identification No.

## 4. PARENT COMPANY INFORMATION

4.1 Name of Parent Company

4.2 Parent Company's Dun & Bradstreet No. - -

(This space for EPA use only.)

# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

### 1. PUBLICLY OWNED TREATMENT WORKS (POTW)

Facility Name

Street Address

City | County

State | Zip

### 2. OTHER OFF-SITE LOCATIONS - Number these locations sequentially on this and any additional page of this form you use

☐ Other off-site location

EPA Identification Number (RCRA ID. No.)

Facility Name

Street Address

City | County

State | Zip

Is location under control of reporting facility or parent company? ☐ Yes ☐ No

☐ Other off-site location

EPA Identification Number (RCRA ID. No.)

Facility Name

Street Address

City | County

State | Zip

Is location under control of reporting facility or parent company? ☐ Yes ☐ No

☐ Other off-site location

EPA Identification Number (RCRA ID. No.)

Facility Name

Street Address

City | County

State | Zip

Is location under control of reporting facility or parent company? ☐ Yes ☐ No

☐ Check if additional pages of Part II are attached.

(This space for EPA use only)

# EPA FORM R

## PART III. CHEMICAL SPECIFIC INFORMATION

### 1. CHEMICAL IDENTITY

1.1 ☐ Trade Secret (Provide a generic name in 1.4 below. Attach substantiation form to this submission.)

1.2 CAS # ☐☐☐☐☐☐ - ☐☐ - ☐ (Use leading zeros if CAS number does not fill space provided.)

1.3 Chemical or Chemical Category Name

1.4 Generic Chemical Name (Complete only if 1.1 is checked.)

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you have completed Section 1.)

Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation))

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

3.1 Manufacture: a. ☐ Produce b. ☐ Import c. ☐ For on-site use/processing d. ☐ For sale/ distribution e. ☐ As a byproduct f. ☐ As an impurity

3.2 Process: a. ☐ As a reactant b. ☐ As a formulation component c. ☐ As an article component d. ☐ Repackaging only

3.3 Otherwise Used: a. ☐ As a chemical processing aid b. ☐ As a manufacturing aid c. ☐ Ancillary or other use

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON SITE AT ANY TIME DURING THE CALENDAR YEAR

☐☐ (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT

| You may report releases of less than 1,000 lbs. by checking ranges under A.1. | | A. Total Release (lbs/yr) A.1 Reporting Ranges 0 | 1–499 | 500–999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | | | | | 5.1b ☐ | |
| 5.2 Stack or point air emissions | 5.2a | | | | | 5.2b ☐ | |
| 5.3 Discharges to water (Enter letter code from Part I Section 3.10 for streams(s).) 5.3.1 ☐ | 5.3.1a | | | | | 5.3.1b ☐ | 5.3.1c |
| 5.3.2 ☐ | 5.3.2a | | | | | 5.3.2b ☐ | 5.3.2c |
| 5.3.3 ☐ | 5.3.3a | | | | | 5.3.3b ☐ | 5.3.3c |
| 5.4 Underground injection | 5.4a | | | | | 5.4b ☐ | |
| 5.5 Releases to land 5.5.1 ☐☐☐ (enter code) | 5.5.1a | | | | | 5.5.1b ☐ | |
| 5.5.2 ☐☐☐ (enter code) | 5.5.2a | | | | | 5.5.2b ☐ | |
| 5.5.3 ☐☐☐ (enter code) | 5.5.3a | | | | | 5.5.3b ☐ | |

☐ (Check if additional information is provided on Part IV-Supplemental Information.)

## 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 lbs. by checking ranges under A.1. | A. Total Transfers (lbs/yr) A.1 Reporting Ranges 0 / 1–499 / 500–999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1 Discharge to POTW | | | 6.1b ☐ | |
| 6.2 Other off-site location (Enter block number from Part II, Section 2.) ☐ | | | 6.2b ☐ | 6.2c ☐☐☐ |
| 6.3 Other off-site location (Enter block number from Part II, Section 2.) ☐ | | | 6.3b ☐ | 6.3c ☐☐☐ |
| 6.4 Other off-site location (Enter block number from Part II, Section 2.) ☐ | | | 6.4b ☐ | 6.4c ☐☐☐ |

☐ (Check if additional information is provided on Part IV-Supplemental Information)

## 7. WASTE TREATMENT METHODS AND EFFICIENCY

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a ☐ | 7.1b ☐☐☐ | 7.1c ☐ | 7.1d ☐ | 7.1e % | 7.1f ☐ ☐ |
| 7.2a ☐ | 7.2b ☐☐☐ | 7.2c ☐ | 7.2d ☐ | 7.2e % | 7.2f ☐ ☐ |
| 7.3a ☐ | 7.3b ☐☐☐ | 7.3c ☐ | 7.3d ☐ | 7.3e % | 7.3f ☐ ☐ |
| 7.4a ☐ | 7.4b ☐☐☐ | 7.4c ☐ | 7.4d ☐ | 7.4e % | 7.4f ☐ ☐ |
| 7.5a ☐ | 7.5b ☐☐☐ | 7.5c ☐ | 7.5d ☐ | 7.5e % | 7.5f ☐ ☐ |
| 7.6a ☐ | 7.6b ☐☐☐ | 7.6c ☐ | 7.6d ☐ | 7.6e % | 7.6f ☐ ☐ |
| 7.7a ☐ | 7.7b ☐☐☐ | 7.7c ☐ | 7.7d ☐ | 7.7e % | 7.7f ☐ ☐ |
| 7.8a ☐ | 7.8b ☐☐☐ | 7.8c ☐ | 7.8d ☐ | 7.8e % | 7.8f ☐ ☐ |
| 7.9a ☐ | 7.9b ☐☐☐ | 7.9c ☐ | 7.9d ☐ | 7.9e % | 7.9f ☐ ☐ |
| 7.10a ☐ | 7.10b ☐☐☐ | 7.10c ☐ | 7.10d ☐ | 7.10e % | 7.10f ☐ ☐ |
| 7.11a ☐ | 7.11b ☐☐☐ | 7.11c ☐ | 7.11d ☐ | 7.11e % | 7.11f ☐ ☐ |
| 7.12a ☐ | 7.12b ☐☐☐ | 7.12c ☐ | 7.12d ☐ | 7.12e % | 7.12f ☐ ☐ |
| 7.13a ☐ | 7.13b ☐☐☐ | 7.13c ☐ | 7.13d ☐ | 7.13e % | 7.13f ☐ ☐ |
| 7.14a ☐ | 7.14b ☐☐☐ | 7.14c ☐ | 7.14d ☐ | 7.14e % | 7.14f ☐ ☐ |

☐ (Check if additional information is provided on Part IV-Supplemental Information.)

## 8. OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility See the instructions for coded items and an explanation of what information to include )

| A. Type of modification (enter code) | B. Quantity of the chemical in the wastestream prior to treatment/disposal | | | C. Index | D. Reason for action (enter code) |
|---|---|---|---|---|---|
| | Current reporting year (lbs/yr) | Prior year (lbs/yr) | Or percent change | | |
| ☐☐ | _____ | _____ | _____ % | ☐☐ | ☐☐ |

# EPA FORM R

## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Parts I and III. Number or letter this information sequentially from prior sections (e.g., D,E, F, or 5.54, 5.55).

(This space for EPA use only.)

### ADDITIONAL INFORMATION ON FACILITY IDENTIFICATION (Part I - Section 3)

| | | | |
|---|---|---|---|
| 3.5 | SIC Code | | |
| 3.7 | Dun & Bradstreet Number(s) | | |
| 3.8 | EPA Identification Number(s) RCRA I.D. No.) | | |
| 3.9 | NPDES Permit Number(s) | | |
| 3.10 | Name of Receiving Stream(s) or Water Body(s) | | |

### ADDITIONAL INFORMATION ON RELEASES TO LAND ( Part III - Section 5.5)

| Releases to Land | A. Total Release (lbs/yr) | A.1 Reporting Ranges 0 | 1-499 | 500-999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) |
|---|---|---|---|---|---|---|
| 5.5___ ☐☐☐ (enter code) | 5.5___a | | | | | 5.5___b ☐ |
| 5.5___ ☐☐☐ (enter code) | 5.5___a | | | | | 5.5___b ☐ |
| 5.5___ ☐☐☐ (enter code) | 5.5___a | | | | | 5.5___b ☐ |

### ADDITIONAL INFORMATION ON OFF-SITE TRANSFER ( Part III - Section 6)

| | A.Total Transfers (lbs/yr) | A.1 Reporting Ranges 0 | 1-499 | 500-999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|---|---|---|
| 6.___ Discharge to POTW | 6.___a | | | | | 6.___b ☐ | |
| 6.___ Other off-site location (Enter block number from Part II, Section 2.) ☐ | 6.___a | | | | | 6.___b ☐ | 6.___c. ☐☐☐ |
| 6.___ Other off-site location (Enter block number from Part II Section 2.) ☐ | 6.___a | | | | | 6.___b ☐ | 6.___c. ☐☐☐ |

### ADDITIONAL INFORMATION ON WASTE TREATMENT (Part III - Section 7)

| A General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F Based on Operating Data? Yes | No |
|---|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d ☐ | 7.___e % | 7.___f ☐ | ☐ |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d ☐ | 7.___e % | 7.___f ☐ | ☐ |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d ☐ | 7.___e % | 7.___f ☐ | ☐ |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d ☐ | 7.___e % | 7.___f ☐ | ☐ |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d ☐ | 7.___e % | 7.___f ☐ | ☐ |

**b. Instructions.**

# INSTRUCTIONS FOR COMPLETING EPA FORM R, THE TOXIC CHEMICAL RELEASE REPORTING FORM

## GENERAL INFORMATION

A complete report Form R must be submitted for each toxic chemical manufactured, processed, or otherwise used at each covered facility as prescribed in the reporting rule in 40 CFR Part 372. These instructions supplement and elaborate on the requirements in the reporting rule. Together with the reporting rule, they constitute the reporting requirements; you should read both before attempting to complete Form R. All references in these instructions are to sections in the reporting rule unless otherwise indicated.

The Toxic Chemical Release Reporting Form, EPA Form R, consists of four parts:

- Part I, Facility Identification Information;
- Part II, Off-Site Locations to Which Toxic Chemicals are Transferred in Wastes;
- Part III, Chemical Specific Information; and
- Part IV, Supplemental Information.

Form R is designed so that a majority of the information required in Part I and all of the information required in Part II should be the same for each chemical reported by your facility. If the information in Parts I and II are identical for two or more chemicals, you may submit photostatic copies of those parts for those chemicals as long as each Part I has an original signature on the certification statement. Part III must be completed separately for each chemical. Part IV provides additional space, if needed, to complete the information required by the preceding sections of the form.

A complete report for any listed toxic chemical that is not claimed trade secret consists of the following completed parts:

- Part I with an original signature on the certification statement (Section 2);
- Part II;
- Part III (Section 8 is optional); and
- If applicable, Part IV.

A complete report for a toxic chemical claimed trade secret includes all of the above items plus the following:

- A completed trade secret substantiation form;
- A "sanitised" version of the report in which the chemical identity items (Part III, Sections 1.2 and 1.3) have been left blank but in which a generic chemical name has been supplied (Part III, Section 1.4); and
- A "sanitised" version of the trade secret substantiation form.

## WHEN THE REPORT MUST BE SUBMITTED

The report for any calendar year must be submitted on or before July 1 of the following year (e.g., the report for calendar year 1987, January through December, must be submitted on or before July 1, 1988).

## WHERE TO SEND THE REPORT

Submit reports, including reports containing trade secret claims (i.e., sanitised) to:

U.S. Environmental Protection Agency
P.O. Box 70266
Washington, D.C. 20024-0266
Attn: Toxic Chemical Release Inventory

In addition, you must send a copy of the report to the State (State of the U.S., the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, the Northern Mariana Islands, and any other territory or possession over which the U.S. has jurisdiction) in which the facility is located. States will provide addresses where the copies of the reports are to be sent. Copies of the report sent to the State should be the "sanitised," non-trade-secret version of the report, unless the State specifically requests otherwise. For additional information, refer to the discussion of trade secret/confidentiality claims in the instructions for completing Part III, Section 1, of the form.

## HOW TO OBTAIN FORMS AND OTHER INFORMATION

Additional copies of EPA Form R and related guidance documents may be obtained from:

Emergency Planning and Community Right-to-Know Hotline
U.S. Environmental Protection Agency
WH-562A
401 M Street, S.W.
Washington, D.C. 20460
(800) 535-0202
(202) 479-2449 (Washington D.C. and Alaska)

## INSTRUCTIONS FOR COMPLETING SPECIFIC SECTIONS OF EPA FORM R

The following are specific instructions for completing each section of EPA Form R. The number designations of the parts and sections of these instructions correspond to those in Form R unless otherwise indicated.

## PART I. FACILITY IDENTIFICATION INFORMATION

### 1.1 Does This Report Contain Trade Secret Information?

You must answer this question only after you have completed the rest of the report. The specific identity of the toxic chemical being reported in Part III, Sections 1.2 and 1.3 may be designated as trade secret. If you are making a trade secret claim, answer by marking the "yes" box and proceed to Section 1.2. (See Part III, Section 1, of these instructions for specific instructions on trade secrecy claims.) If the answer is no, proceed to Section 1.3.

### 1.2 Is This a Sanitized Copy?

You must answer this question only after you have completed the rest of the report. Answer yes if this copy of the report is the public "sanitised" version of a report where the chemical identity is claimed trade secret in Part III, Section 1.4 of the report. Otherwise answer no.

## 1.3 Reporting Year

In Section 1.3, you must enter the year to which the reported information applies, not the year in which you are submitting the report.

## 2. Certification

The certification statement must be signed by the owner or operator, or a senior official with management responsibility for the person (or persons) completing the form. The owner, operator, or official must certify the accuracy and completeness of the information reported on the form by signing and dating the certification statement. Each report must contain an original signature. Print or type the name and title of the person who signs the statement in the space provided. This certification statement applies to all the information supplied on the form and should be signed only after the form has been completed.

## 3. Facility Identification

## 3.1 Facility Name and Location

You must enter the name of your facility (plant site name or appropriate facility designation), street address, city, county, state, and zip code in the space provided. You may not use a post office box number for this location information. The address provided should be the location where the chemicals are manufactured, processed, or otherwise used.

## 3.2 Full or Partial Facility Indication

You must indicate whether your report is for the covered facility as a whole or for part of a covered facility. Check box a. if the report contains information about a chemical for an entire covered facility. Check box b. if the report contains information about a chemical but for only part of a covered facility.

The SIC code system classifies business "establishments," which are defined as "distinct and separate economic activities [which] are performed at a single physical location." Under section 372.30(c) of the reporting rule, you may choose to submit a separate Form R for each establishment, or for groups of establishments, in your covered facility. This allows you the option of reporting separately on the activities involving a toxic chemical at each establishment, or group of establishments (e.g., part of a covered facility), rather than submitting a single Form R for that chemical for the entire facility. You may do this provided that all releases of the toxic chemical from the entire covered facility are reported. However, if an establishment or group of establishments does not manufacture, process, otherwise use, or release a toxic chemical, then you do not have to submit a report on that chemical from that establishment or group of establishments.

## 3.3 Technical Contact

You must enter the name and telephone number (including area code) of a technical representative whom EPA or State officials may contact for clarification of the information reported on the form. This person does not have to be the person who prepares the report or signs the certification statement. However, this person must have detailed knowledge of the report to be able to respond to questions.

## 3.4 Public Contact

You must enter the name and telephone number of a person who can respond to questions from the public about the report. If you choose to designate the same person as both the technical and the public contact, enter "same as 3.3" in this space. If no public contact is designated in Section 3.4, EPA will treat the technical contact as the public contact.

## 3.5 Standard Industrial Classification (SIC) Code

You must enter the appropriate 4-digit primary Standard Industrial Classification (SIC) code for your facility. If the report covers more than one establishment, enter the primary 4 digit SIC code for each establishment. You are only required to enter SIC codes for establishments within the facility that fall within SIC codes 20 through 39 as identified in section 372.22 of the reporting rule. Use the Supplemental Information sheet (Part IV) if you need to enter more than three SIC codes.

## 3.6 Latitude and Longitude

Enter the latitudinal and longitudinal coordinates of your facility. You must supply the latitude and longitude for calendar year 1987 reports if the information is readily available to you. Sources of these data include EPA permits (e.g., NPDES permits), county property records, facility blueprints, and site plans. If these geographic coordinates are not readily available to you for calendar year 1987 reports, enter not applicable [N/A]. All facilities are required to provide this information in reports submitted for the calendar year 1988 and subsequent years. Use leading place holding zeros.

## 3.7 Facility Dun and Bradstreet Number

You must enter the number assigned by Dun and Bradstreet for your facility or each establishment within your facility. This may be available from your facility's financial office. If none of your establishments have been assigned Dun and Bradstreet Numbers, indicate this in Section 3.7 by entering not applicable [N/A] in box a. If only some of your establishments have been assigned Dun and Bradstreet numbers, indicate this in Section 3.7 by entering those numbers. Use leading place holding zeros. For more than two establishments, use the Supplemental Information sheet (Part IV).

## 3.8 EPA Identification Number

If your facility has been assigned EPA Identification Numbers, you must enter those numbers. The EPA I.D. Number is a 12-digit number assigned to facilities covered by hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA). Facilities not covered by RCRA are not likely to have an assigned EPA I.D. Number. If your facility does not have an EPA I.D. Number, enter not applicable [N/A] in box a. If your facility has more than two numbers, use the Supplemental Information sheet (Part IV). Use leading place holding zeros.

## 3.9 NPDES Permit Numbers

You must enter the numbers of any permits your facility holds under the National Pollutant Discharge Elimination System (NPDES). This 9-digit permit number is assigned to your facility by EPA or the State under the authority

of the Clean Water Act. If your facility has more than two permits, use the Supplemental Information sheet (Part IV). Use leading place holding zeros. If your facility does not have a permit, enter not applicable [N/A] in box a.

### 3.10 Name of Receiving Stream or Water Body

You must enter the name of each surface water body or receiving stream to which chemicals being reported are directly discharged. Report the name of each receiving stream or water body as it appears on the NPDES permit for the facility. Enter not applicable [N/A] to any unneeded spaces. If your facility discharges the toxic chemical to more than three receiving streams or water bodies, use the Supplemental Information sheet (Part IV).

### 3.11 Underground Injection Well Code (UIC) Identification Number

If your facility has a permit to inject chemical-containing waste which includes any toxic chemical being reported into Class 1 deep wells, you must enter the Underground Injection Control (UIC) 12-digit identification number assigned by EPA or by the State under the authority of the Safe Drinking Water Act. If your facility does not hold such a permit, enter not applicable [N/A] in this space.

## 4. Parent Company Information

You must provide information on your parent company. For purposes of this form, parent company is defined as a company which directly owns at least 50 percent of the voting stock of another company.

### 4.1 Name of Parent Company

You must enter the name of the corporation or other business entity that is your parent company. If you have no parent company, enter not applicable [N/A].

### 4.2 Parent Company's Dun & Bradstreet Number

If applicable, you must enter the Dun and Bradstreet Number for your parent company. The number may be obtained from the treasurer or financial officer of the company. If your parent company does not have a Dun and Bradstreet number, enter not applicable [N/A]. Use leading place holding zeros.

# PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

This section requires a listing of all off-site locations to which you transfer wastes containing the toxic chemical. The information that you enter in this section relates to data to be reported in Part III, Section 6, of the form. List only publicly owned treatment works (POTW) and treatment or disposal facilities. Do not list locations to which products containing the toxic chemical are shipped for sale or distribution in commerce or for further use. Also, do not list locations to which wastes containing the chemical are sold or sent for recovery, recycling, or reuse of the toxic chemical.

## 1. Publicly Owned Treatment Works (POTW)

You must enter the name and address of the POTW to which your facility discharges wastewater containing any toxic chemical you are reporting. If you do not discharge wastewater containing reported toxic chemicals to a POTW, enter not applicable [N/A]. If you discharge wastewater containing toxic chemicals to more than one POTW, use additional copies of Part II.

## 2. Other Off-Site Locations

In the block next to the heading "Other off-site location," enter a number. For the first such off-site location enter "1" in the block. Continue numbering the off-site locations in ascending order. This is the block number required by Part III, Section 6. If your facility transfers the toxic chemical to more than three off-site locations, use additional copies of Part II and continue numbering these locations in ascending order.

In the spaces provided, you must enter the name and address of each location (other than POTWs) to which you ship or transfer wastes containing the toxic chemical. Also enter the RCRA I.D. Number (EPA I.D. Number) for each such location, if known to you. Such information may be found on the Uniform Hazardous Waste Manifest which is required by RCRA regulations.

You must also indicate in the space provided whether the location is owned or controlled by your facility or your parent company.

# PART III. CHEMICAL SPECIFIC INFORMATION

## 1.1 Trade Secret Block

If you are claiming chemical identity as a trade secret, you must mark the trade secret claim box in Section 1.1. In addition, you must attach a completed trade secret substantiation form to the report, as set forth in the trade secret rule in 40 CFR Part 350. When the chemical identity is claimed trade secret, you must also provide a generic name in Section 1.4.

Note: If you complete and submit your Toxic Chemical Release Inventory Reporting Form before the trade secret rule is in effect, you are still required to substantiate your claim that the specific chemical identity is a trade secret. Accordingly, you should follow the provisions of the proposed trade secret rule and use the proposed trade secret substantiation form which appeared in the FEDERAL REGISTER of October 15, 1987 (52FR 38312-38377).

## 1.2 CAS Registry Number

You must enter the Chemical Abstracts Service (CAS) registry number that appears in section 372.65 of the reporting rule for the chemical being reported. Use leading place holding zeros. If you are reporting one of the chemical categories in section 372.65 of the rule (e.g., copper compounds), enter [N/A] in the CAS number space. CAS numbers are cross-referenced with an alphabetical list of trade names and chemical names in section 372.65 of the rule.

## 1.3 Chemical or Chemical Category Name

You must enter in the space provided the name of the chemical or chemical category as it is listed in section 372.65 of the reporting rule. Only use names listed in section 372.65.

## 1.4 Generic Chemical Name

You must complete Section 1.4 if you are claiming the specific chemical identity of the toxic chemical as a trade secret and have marked the trade secret block in

Section 1.1. The generic chemical name must be descriptive of the chemical structure. You must limit the generic name to seventy characters (e.g., numbers, letters, spaces, punctuation) or less.

## 2. Mixture Component Identity

Use this section to report a mixture component that you know exceeds a threshold. Do not complete this section if you have completed Section 1 of Part III.

You may have received a mixture or trade name product from another person which you were told contains a section 313 toxic chemical, but that person did not tell you the specific chemical name or CAS number of the toxic chemical. The person may have given you a generic chemical name and the percentage composition of the toxic chemical in the mixture or trade name product under section 372.45 of the reporting rule. If you determine that you have imported, processed, or otherwise used the toxic chemical in the mixture or trade name product in excess of an applicable threshold, you must enter the generic chemical name given to you by your supplier in Section 2. If your supplier did not give you a generic chemical name, you must enter the name by which the supplier identified the chemical to you. (In some cases, this may be the same as the name of the mixture or trade name product.)

For example, your facility uses 20,000 pounds of a solvent which your supplier has told you contains eighty percent "chlorocyclocarbon," his generic name for a chemical subject to reporting under section 313. You therefore know that you have exceeded the use threshold for this toxic chemical. You would enter the name "chlorocyclocarbon," in the space provided in Section 2.

## 3. Activities and Uses of the Chemical at the Facility

This section requires an indication of whether the chemical is manufactured (including imported), processed, or otherwise used at the facility for which the form is being filed and the general nature of such activities and uses at the facility during the calendar year. Report activities that take place only at your facility, not activities that take place at other facilities involving your products. You must mark all of the appropriate blocks in this Section that apply to the activities at your facility. Refer to the definitions of "manufacture," "process," and "otherwise used" in section 372.3 of the reporting rule for explanations supplementing those provided below.

### 3.1 Manufacture

#### a. Produce.
A chemical included in this category is produced at the facility.

#### b. Import.
A chemical included in this category is imported to the facility.

#### c. For on-site use/processing.
A chemical included in this category is manufactured and then further processed or otherwise used at the same facility.

#### d. For sale/distribution.
A chemical in this category is manufactured specifically for sale or distribution outside the manufacturing facility.

#### e. As a byproduct.
A chemical in this category is produced coincidentally during the production, processing, use, or disposal of another chemical substance or mixture, and following its production, is separated from that other chemical substance or mixture.

#### f. As an impurity.
A chemical in this category is produced coincidentally with another chemical substance, and is processed, used, or distributed with it.

### 3.2 Process (incorporative-type activities)

#### a. As reactant.
A natural or synthetic chemical used in chemical reactions for the manufacture of another chemical substance or of a product. Includes, but is not limited to, feedstocks, raw materials, intermediates, and initiators.

#### b. As a formulation component.
A chemical added to a product or product mixture prior to further distribution of the product that aids the performance of the product in its use. Examples include, but are not limited to, additives, dyes, reaction diluents, initiators, solvents, inhibitors, emulsifiers, surfactants, lubricants, flame retardants, and rheological modifiers.

#### c. As an article component.
A chemical substance that becomes an integral component of an article distributed for industrial, trade, or consumer use.

#### d. Repackaging only.
Processing or preparation of a chemical or product mixture for distribution in commerce in a different form, state, or quantity.

### 3.3 Otherwise Used (non-incorporative-type activities)

#### a. As a chemical processing aid.
A chemical that is added to a reaction mixture to aid in the manufacture or synthesis of another chemical substance but does not intentionally remain in or become part of the product or product mixture. Examples of such chemicals include, but are not limited to, process solvents, catalysts, inhibitors, initiators, reaction terminators, and solution buffers.

#### b. As a manufacturing aid.
A chemical whose function is to aid the manufacturing process but does not become part of the resulting product. Examples include, but are not limited to, lubricants, metalworking fluids, coolants, refrigerants, and hydraulic fluids.

#### c. Ancillary or other use.
A chemical in this category is used at a facility for purposes other than as a chemical processing aid or manufacturing aid as described above. Includes, but is not limited to, cleaners, degreasers, lubricants, and fuels.

## 4. Maximum Amount of the Chemical On Site at Any Time During the Calendar Year

You must insert the appropriate code (see below) that indicates the maximum quantity of the chemical (in storage tanks, process vessels, on-site shipping containers, etc.) at your facility at any time during the calendar year. If the chemical was present at several locations within your facility, use the maximum <u>total</u> amount present at the entire facility at any one time.

| Range Code | Weight Range in Pounds From... | To... |
|---|---|---|
| 01 | 0 | 99 |
| 02 | 100 | 999 |
| 03 | 1,000 | 9,999 |
| 04 | 10,000 | 99,999 |
| 05 | 100,000 | 999,999 |
| 06 | 1,000,000 | 9,999,999 |
| 07 | 10,000,000 | 49,999,999 |
| 08 | 50,000,000 | 99,999,999 |
| 09 | 100,000,000 | 499,999,999 |
| 10 | 500,000,000 | 999,999,999 |
| 11 | 1 billion | more than 1 billion |

If the toxic chemical was present at your facility as part of a mixture or trade name product, to determine the maximum quantity of the chemical present at the facility you must calculate only the weight of the toxic chemical, not the weight of the entire mixture or trade name product. See section 372.30(b) of the reporting rule for further information on how to calculate the weight of the chemical in the mixture or trade name product.

## 5. Releases of the Chemical to the Environment

In Section 5 you must account for the total aggregate releases of the toxic chemical from your facility to the environment for the calendar year. Releases to the environment include emissions to the air, discharges to surface waters, and releases to land and underground injection wells.

All air releases of the chemical from the facility must be covered. In case of doubt about whether an air release is a point or non-point release, it is important that the release be included as one or the other rather than omitted. Do not enter information on individual emission points or releases. Enter only the total release.

## 5.1 Fugitive or non-point air emissions.

These are releases to the air that are not released through stacks, vents, ducts, pipes, or any other confined air stream. You must include (1) fugitive equipment leaks from valves, pump seals, flanges, compressors, sampling connections, open-ended lines, etc.; (2) evaporative losses from surface impoundments; (3) releases from building ventilation systems; and (4) any other fugitive or non-point air emissions.

## 5.2 Stack or point air emissions.

These are releases to the air that are through stacks, vents, ducts, pipes, or other confined air streams. You must include storage tank emissions. Air releases from control equipment would generally fall in this category.

## 5.3 Discharges to water

You must enter the applicable letter code for the receiving stream or water body from Section 3.10 of Part I of the form. Also, you must enter the total annual amount of the chemical released from all discharge points at the facility to each receiving stream or water body. You must include process outfalls such as pipes and open trenches, releases from on-site wastewater treatment systems, and the contribution from stormwater runoff if applicable (see instructions for column C below). Do not include "indirect" discharges to surface waters such as to a POTW or off-site wastewater treatment facility. These must be reported in Section 6.

## 5.4 Underground injection

You must enter the total annual amount of the chemical that was injected into wells, including Class I and other types, at the facility.

## 5.5 Releases to land

You must report quantities of the chemical that were landfilled, impounded, or otherwise disposed of at the facility. Do not report land disposal at off-site locations in this section. You must enter the appropriate disposal code from the following list:

Disposal Codes

- D02 Landfill
- D03 Land Treatment/Application/Farming
- D05 Surface Impoundment (to be closed as a Landfill)
- D99 Other Disposal

Three lines are provided in this section of the form to accommodate various types of land disposal.

For the purpose of this form, a surface impoundment is considered "final disposal." Quantities of the chemical released to surface impoundments that are used merely as part of a wastewater treatment process generally must not be reported in this section of the form. However, if the impoundment accumulates sludges containing the chemical, you must include an estimate in this section unless the sludges are removed and otherwise disposed of (in which case they should be reported under the appropriate section of the form). For the purposes of this reporting, storage tanks are not considered to be a type of disposal and are not to be reported in this section of the form.

## A. Total Release

Only releases of the toxic chemical to the environment for the calendar year are to be reported in this section of the form. The total releases from your facility do not include transfers or shipments of the chemical from your facility for sale or distribution in commerce or of wastes to other facilities for treatment or disposal (see Section 6.1). Both routine releases, such as fugitive air emissions, and accidental or non-routine releases, such as chemical spills, must be included in your estimate of the quantity released.

## A.1 Reporting Ranges

For reports submitted for calendar years 1987, 1988, and 1989 only, you may take advantage of range reporting for releases that are less than 1,000 pounds for the year to an environmental medium. You may mark one of the three boxes, 0, 1-499, or 500-999, corresponding to releases of the chemical to any environmental medium (i.e., any line item); however, you do not have to use these range check boxes. You have the option of providing a specific figure in column A.2 as described below.

For releases of 1,000 pounds or more for the year to any medium, you must provide an estimate in pounds per year in column A.2. Any estimate provided in column A.2 is required to be accurate to no more than two significant figures. Beginning with reports for calendar year 1990, you may not use ranges to report, you must report in column A.2.

## A.2 Enter Estimates

You must provide your estimates of releases in pounds for the year in column A.2. This estimate is required to be accurate to no more than two significant figures.

## Calculating Releases

To provide the release information required in both Sections A.1 and A.2 in this section of the form, you must use all readily available data (including relevant monitoring data and emissions measurements) collected at your facility pursuant to other provisions of law or as part of routine plant operations, to the extent you have it for the toxic chemical.

When relevant monitoring data or emission measurements are not readily available, reasonable estimates of the amounts released must be made using published emission factors, material balance calculations, or engineering calculations. You may not use emission factors or calculations to estimate releases if more accurate data are available.

No additional monitoring or measurement of the quantities or concentrations of any toxic chemical released into the environment, or of the frequency of such releases, is required for the purpose of completing this form, beyond that which is required under other provisions of law or regulation or as part of routine plant operations.

You must estimate as accurately as possible the quantity in pounds of the chemical or chemical category that is released annually to each environmental medium. Do not include the quantity of components of a waste stream other than the toxic chemical in this estimate.

If the toxic chemical was present at your facility as part of a mixture or trade name product, you must calculate the releases of the chemical only. Do not include releases of the other components of the mixture or trade name product. If you only know about or are only able to estimate the releases of the mixture or trade name product as a whole, you must assume that the toxic chemical is released in proportion to its concentration in the mixture or trade name product. See section 372.30(b) of the reporting rule for further information on how to calculate the concentration and weight of the chemical in the mixture or trade name product.

If you are reporting a chemical category listed in section 372.65(c) of the reporting rule rather than a specific chemical, you must combine the release data for all chemicals in the listed chemical category (e.g., all glycol ethers or all chlorophenols) and report the aggregate amount for that chemical category. Do not report releases of each individual chemical in that category separately. For example, if your facility releases 3,000 pounds per year of 2-chlorophenol, 4,000 pounds per year of 3-chlorophenol, and 4,000 pounds per year of 4-chlorophenol, you should report that your facility releases 11,000 pounds per year of chlorophenols. (Other than for listed chemical categories in section 372.65(c) of the rule, each form must report for an individual chemical.

Listed chemicals with the qualifier "solution," such as sodium sulfate, in concentrations of 1 percent (or 0.1 percent in the case of a carcinogen) or greater, must be factored into threshold and release calculations, because threshold and release amounts relate to the amount of chemical in solution, not the amount of solution.

For metal compound categories (e.g., chromium compounds), report releases of only the parent metal. For example, a user of various inorganic chromium salts would report the total chromium released in each waste type regardless of the chemical form (e.g., as the original salts, chromium ion, oxide, etc.), and exclude any contribution to mass made by other species in the molecule.

## B. Basis of Estimate

For each release estimate you are required to indicate the principal method by which the quantity was derived. Enter the letter code to identify the method which applies to the largest portion of the total estimated quantity.

For example, if 40 percent of stack emissions of the reported substance were derived using monitoring data, 30 percent by mass balance, and 30 percent by emission factors, you would enter the code letter "M" for monitoring. The codes are as follows:

M - Based on monitoring data or measurements for the toxic chemical as released to the environment and/or off-site facility.

C - Based on mass balance calculations, such as calculation of the amount of the toxic chemical in streams entering and leaving process equipment.

E - Based on published emission factors, such as those relating release quantity to throughput or equipment type (e g., air emissions factors)

O - Based on other approaches such as engineering calculations (e.g., estimating volatilisation or solubility using published mathematical formulas) or best engineering judgment. This would include applying an estimated removal efficiency to a wastestream even if the composition of stream before treatment was fully characterised by monitoring data.

If the monitoring data, mass balance, or emission factor used to estimate the release is not specific to the toxic chemical, the estimate should be reported as based on engineering calculations or judgment.

## C. Percent From Stormwater

This column only relates to Section 5.3 - Discharges to Water. The quantity of the chemical released to any receiving stream or water body in each box in column A must include the amount contributed by stormwater runoff from the facility which contains the chemical. In addition, the percentage of the total quantity (by weight) of the chemical contributed by stormwater must be entered in column C. If your facility has monitoring data on the chemical and an estimate of flow rate, you must use this data to determine percent stormwater.

If your facility does not have periodic measurements of stormwater releases of the chemical but has submitted chemical specific monitoring data in permit applications, then these data must be used to calculate the percent contribution from stormwater. Flow rate data can be estimated by multiplying the annual amount of rainfall times the land area times the runoff coefficient. The runoff coefficient represents the fraction of rainfall that does not infiltrate into the ground but runs off as stormwater. The runoff coefficient is directly related to the land uses located in the drainage area and ranges from 0.5-0.8 for light industrial areas and 0.6-0.9 for heavy industrial areas. Site specific determinations can

be calculated using the following formula:

(1 x fractional paved or roofed area) + (0.2 x fractional grass area) + (0.3 x fractional graveled area) = site runoff coefficient

If you have monitored stormwater but did not detect the chemical, enter zero (0) in this space. If your facility has no stormwater monitoring data for the of the chemical, enter no data [N/D] in this space on the form.

## 6. Transfers of the Chemical in Waste to Off-Site Locations

You must report in this section the total annual quantity of the chemical sent to any of the off-site disposal, treatment, or storage facilities for which you have provided an address in Part II.

Line 6.1 is for transfers to a POTW. Lines 6.2 through 6.4 are provided for transfers to other off-site locations, including privately owned wastewater treatment facilities.

Enter, from Section 2 of Part II, the block number that corresponds to the off-site location to which you transferred waste containing the chemical. If you need additional space (i.e., you ship waste to more than three off-site locations), check the box at the bottom of Section 6 and use the Supplemental Information sheet (Part IV).

### A. Total Transferred

You must follow the instructions for providing estimates as presented in the instructions for column A of Section 5 above. You must enter the amount in pounds of only the toxic chemical that is being transferred; do not enter the total poundage of wastes, including mixtures or trade name products containing the chemical. As with Section 5, you may report in ranges only for calendar years 1987, 1988, and 1989

### B. Basis of Estimate

You must identify the basis for your estimate. Follow the instructions and use the same codes as presented in the instructions for column B of Section 5.

### C. Type of Treatment/Disposal

You must enter one of the following codes to identify the type of treatment or disposal method used by the off-site location for the chemical being reported. You may have this information in your copy of EPA Form 8O, Item 8 of the Annual/Biennial Hazardous Waste Treatment, Storage, and Disposal Report (RCRA). Applicable codes for this section are as follows:

M10 Storage Only
M20 Reuse as Fuel/Fuel Blending
M40 Solidification/Stabilization
M50 Incineration/Thermal Treatment
M61 Wastewater Treatment (Excluding POTW)
M69 Other Treatment
M71 Underground Injection
M72 Landfill/Disposal Surface Impoundment
M73 Land Treatment
M79 Other Land Disposal
M90 Other Off-Site Management
M91 Transfer to Waste Broker
M99 Unknown

## 7. Waste Treatment Methods and Efficiency

In Section 7, you must provide the following information related to the chemical whose releases are being reported: (A) the general wastestream types containing the chemical being reported; (B) the waste treatment methods (if any) used on all wastestreams containing the chemical; (C) the range of concentrations of the chemical in the influent to the treatment method (D) whether sequential treatment is used; (E) the efficiency or effectiveness of each treatment method in removing the chemical; and (F) whether the treatment efficiency figure was based on actual operating data. You must use a separate line in Section 7 for each treatment method used on a wastestream. This section is to be used to report only treatment of wastestreams at your facility, not treatment off-site.

### A. General Wastestream

For each waste treatment method report you must indicate the type of wastestream containing the chemical that is treated. Enter the letter code that corresponds to the general wastestream type:

A = Gaseous (including gases, vapors, airborne particulates)
W = Wastewater (aqueous waste)
L = Liquid waste (non-aqueous waste)
S = Solid waste (including sludges and slurries)

If a waste is a mixture of water and organic liquid, you must report it under wastewater unless the organic content exceeds 50 percent. Slurries and sludges containing water must be reported as solid waste if they contain appreciable amounts of dissolved solids, or solids that may settle, such that the viscosity or density of the waste is considerably different from that of process wastewater.

### B. Treatment Method

Codes for treatment methods are included in Table I of these instructions You must enter the code for each treatment method used on a wastestream containing the toxic chemical, regardless of whether this treatment method actually removes the specific chemical Treatment methods must be reported by type of waste being treated (i.e., gaseous wastes, aqueous wastes, liquid non-aqueous wastes, and solids).

Wastestreams containing the chemical may have a single source or may be aggregates of many sources For example, process water from several pieces of equipment at your facility may be combined prior to treatment Report treatment methods that apply to the aggregate wastestream as well as treatment methods that apply to individual wastestreams If your facility treats various wastewater streams containing the chemical in different ways, the different treatment methods must each be listed separately.

Your facility may have several pieces of equipment performing a similar service. It is not necessary to enter four lines of data to cover four scrubber units, for example, if all four are treating wastes of simular character (e.g., sulfuric acid mist emissions), have simular influent concentrations, and have simular removal efficiencies If, however, any of these parameters differ from one unit to the next, each scrubber must be listed separately.

### C. Range of Influent Concentration

The form requires an indication of the range of concentration of the toxic chemical in the wastestream (i.e., the influent) as it typically enters the treatment equipment You must enter in the space provided one of

the following code numbers corresponding to the concentration of the chemical in the influent:

1 = Greater than 1 percent
2 = 100 parts per million (0 01 percent) to 1 percent (10,000 parts per million)
3 = 1 part per million to 100 parts per million
4 = 1 part per billion to 1 part per million
5 = Less than 1 part per billion

Note that parts per million (ppm) is milligrams/kilogram (mass/mass) for solids and liquids; cubic centimeters/cubic meter (volume/volume) for gases; milligrams/liter for solutions or dispersions of the chemical in water; and milligrams of chemical/kilogram of air for particulates in air. If you have particulate concentrations (at standard temperature and pressure) as grains/cubic foot of air, multiply by 1766.6 to convert to parts per million: if in $mg/m^3$, multiply by 0.773 to obtain ppm. (Note: Factors are for standard conditions of $0^{\circ}C$ ($32^{\circ}F$) and 760 mmHg atmospheric pressure).

## D. Sequential Treatment?

You may use various treatment steps in a sequence but only be able to estimate the treatment efficiency of the overall treatment process. If this is the case, you must enter codes for all of the treatment steps in the process. You must check the column D "sequential treatment?" box for all of these steps in the same sequence. With respect to information that must be supplied in columns C and E, you must provide the range of influent concentrations (column C) in connection with the first step of the sequential treatment. Then provide the treatment efficiency (column E) in connection with the last step in the treatment. You do not need to complete C or E for any intermediate step in the sequence.

## E. Treatment Efficiency Estimate

In the space provided, you must enter the number that indicates the percentage of the toxic chemical that is removed from the wastestream. The treatment efficiency (expressed as percent removal) represents any destruction, biological degradation, chemical conversion, or physical removal of the chemical from the wastestream being treated. This efficiency must represent the mass or weight percentage of chemical destroyed or removed, not just changes in volume or concentration of the chemical or the wastestream. The efficiency indicated for a treatment method must refer only to the percent conversion or removal of the listed toxic chemical from the wastestream, not the percent conversion or removal of other wastestream constituents (alone or together with the listed chemical), and not the general efficiency of the method for any wastestream.

For some treatments, the percent removal will represent removal by several mechanisms, as in secondary wastewater treatment, where a chemical may evaporate, be biodegraded, or be physically removed in the sludge.

Percent removal must be calculated as follows:

$$\frac{(I - E)}{I} \times 100$$

where I = mass of the chemical in the influent wastestream and E = mass of the chemical in the effluent wastestream.

The mass or weight of chemical in the wastestream being treated must be calculated by multiplying the concentration (by weight) of the chemical in the wastestream times the flow rate. When calculating or estimating percent removal efficiency for various wastestreams, the percent removal must compare the gaseous effluent from treatment to the gaseous influent, the aqueous effluent from treatment to the aqueous influent, and similarly for organic liquid and solid waste. However, some treatment methods may not result in a comparable form of effluent wastestream. Examples are incineration or solidification of wastewater. In these cases, the percent removal of the chemical from the influent wastestream would be reported as 100 percent because the wastestream does not exist in a comparable form after treatment.

Some of the treatments listed in Table I do not destroy, chemically convert, or physically remove the chemical from its wastestream. Some examples include fuel blending and evaporation. For these treatment methods, an efficiency of zero must be reported.

For metal compounds, the reportable concentration and treatment efficiency must be calculated based on the weight of the parent metal and not the weight of the metal compounds. Metals are not destroyed but can only be physically removed or chemically converted from one form into another. The treatment efficiency reported must only represent physical removal of the parent metal from the wastestream, not the percent chemical conversion of the metal compound. If a listed treatment method converts but does not remove a metal (e.g., chromium reduction), the method must be reported, but the treatment efficiency must be reported as zero.

All data available at your facility must be utilised to calculate treatment efficiency and influent chemical concentration. You are not required to collect any new data for the purposes of this reporting requirement. If data are lacking, estimates must be made using best engineering judgment or other methods.

## F. Based on Operating Data?

This column requires you to indicate "Yes" or "No" to whether the treatment efficiency estimate is based on actual operating data. For example, you would check "Yes" if the estimate is based on monitoring of influent and effluent wastes under typical operating conditions. If the efficiency estimate is based on published data for similar processes or on equipment supplier's literature, or if you otherwise estimated either the influent or effluent waste comparison or the flow rate, you must check "No."

# 8. Optional Information on Waste Minimization

Information provided in Part III, Section 8, of the form is optional. This section allows you to identify waste minimisation efforts relating to the reported toxic chemical that may not have been reflected in your responses to previous sections of the form.

## A. Type of modification

Enter one code from the following list that best describes the type of waste minimisation activity:

M1 - Recycling/reuse on-site.
M2 - Recycling/reuse off-site.
M3 - Equipment/technology modifications.
M4 - Process procedure modifications.
M5 - Reformulation/redesign of product.
M6 - Substitution of raw materials.
M7 - Improved housekeeping training, inventory control.
M8 - Other waste minimisation technique.

## B. Quantity of the chemical in the wastestream prior to treatment/ disposal

Enter the pounds of the toxic chemical in wastes in the reporting year and the pounds in wastes in the year prior to implementing waste minimisation (the "base year"). Alternatively, to protect confidential information, you may wish to enter only the percentage by which the weight of the chemical in the wastes has changed. This figure (percentage) may be calculated using the following formula:

$$\frac{\text{toxic chemical in wastes in reporting year} - \text{toxic chemical in wastes in prior year}}{\text{toxic chemical in wastes in prior year.}} \times 100$$

The resulting figure may be either negative or positive.

## C. Index

Enter the ratio of reporting-year production to production in the base year. This index should be calculated to most closely reflect activities involving the chemical. Examples of acceptable indices include:

- Chemical produced in 1987/chemical produced in 1986.
- Paint produced in 1987/paint produced in 1986.
- Appliances coated in 1987/appliances coated in 1986.
- Square feet of solar collector fabricated in 1987/square feet of solar collector fabricated in 1986.
- Value of sales in 1987/value of sales in 1986.

For example, a company manufactures 200,000 pounds of a chemical in 1986 and 250,000 pounds of the same chemical in 1987. The index figure to report would be 1.3 (1.25 rounded). The index provides a means for users of the data to distinguish the effects of changes in business activity from the effects specifically of waste minimisation efforts. It is not necessary to indicate the units on which the index is based.

## D. Reason for action

Finally, enter the codes from the following list that best describe the reason for initiating the waste minimisation effort:

R1 - Regulatory requirement for the waste.
R2 - Reduction of treatment/disposal costs.
R3 - Other process cost reduction.
R4 - Self-initiated program.
R5 - Other (e.g., discontinuation of product, occupational safety, etc.).

# TABLE I
# TREATMENT CODES

## AIR EMISSIONS TREATMENT

A01 Flare
A02 Condenser
A03 Scrubber
A04 Absorber
A05 Electrostatic Precipitator
A06 Mechanical Separation
A07 Other Air Emission Treatment

## BIOLOGICAL TREATMENT

B11 Biological Treatment -- Aerobic
B21 Biological Treatment -- Anaerobic
B31 Biological Treatment -- Facultative
B99 Biological Treatment -- Other

## CHEMICAL TREATMENT

C01 Chemical Precipitation -- Lime or Sodium Hydroxide
C02 Chemical Precipitation -- Sulfide
C09 Chemical Precipitation -- Other
C11 Neutralisation
C21 Chromium Reduction
C31 Complexed Metals Treatment (other than pH Adjustment)
C41 Cyanide Oxidation -- Alkaline Chlorination
C42 Cyanide Oxidation -- Electrochemical
C43 Cyanide Oxidation -- Other
C44 General Oxidation (including Disinfection) -- Chlorination
C45 General Oxidation (including Disinfection) -- Ozonation
C46 General Oxidation (including Disinfection) -- Ozonation
C99 Other Chemical Treatment

## INCINERATION/THERMAL TREATMENT

F01 Liquid Injection
F11 Rotary Kiln with Liquid Injection Unit
F19 Other Rotary Kiln
F31 Two Stage
F41 Fixed Hearth
F42 Multiple Hearth
F61 Fluidised Bed
F81 Infra-Red
F71 Fume/Vapor
F81 Pyrolytic Destructor
F82 Wet Air Oxidation
F83 Thermal Drying/Dewatering
F99 Other Incineration/Thermal Treatment

## SOLIDIFICATION/STABILIZATION

G01 Cement Processes (including Silicates)
G09 Other Possolonic Processes (including Silicates)
G11 Asphaltic Processes
G21 Thermoplastic Techniques
G99 Other Solidification Processes

## PHYSICAL TREATMENT

P01 Equalisation
P09 Other Blending
P11 Settling/Clarification
P12 Filtration
P13 Sludge Dewatering (non-thermal)
P14 Air Flotation
P15 Oil Skimming
P16 Emulsion Breaking -- Thermal
P17 Emulsion Breaking -- Chemical
P18 Emulsion Breaking -- Other
P19 Other Liquid Phase Separation
P21 Adsorption -- Carbon
P22 Adsorption -- Ion Exchange (other than for recovery/reuse)
P23 Adsorption -- Resin
P29 Adsorption -- Other
P31 Reverse Osmosis (other than for recovery/reuse)
P41 Stripping -- Air
P42 Stripping -- Steam
P49 Stripping -- Other
P51 Acid Leaching (other than for recovery/reuse)
P61 Solvent Extraction (other than recovery/reuse)
P99 Other Physical Treatment

## RECOVERY/REUSE

R01 Reuse as Fuel -- Industrial Kiln
R02 Reuse as Fuel -- Industrial Furnace
R03 Reuse as Fuel -- Boiler
R04 Reuse as Fuel -- Fuel Blending
R09 Reuse as Fuel -- Other
R11 Solvents/Organics Recovery -- Batch Still Distillation
R12 Solvents/Organics Recovery -- Thin-Film Evaporation
R13 Solvents/Organics Recovery -- Fractionation
R14 Solvents/Organics Recovery -- Solvent Extraction
R19 Solvents/Organics Recovery -- Other
R21 Metals Recovery -- Electrolytic
R22 Metals Recovery -- Ion Exchange
R23 Metals Recovery -- Acid Leaching
R24 Metals Recovery -- Reverse Osmosis
R26 Metals Recovery -- Solvent Extraction
R29 Metals Recovery -- Other
R99 Other Reuse or Recovery

Form Approved OMB No.: 2070-0093

Approval Expires: 01/94

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

**EPA FORM R**

**PART I. FACILITY IDENTIFICATION INFORMATION**

(This space for your optional use.)

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

| 1. | 1.1 Are you claiming the chemical identity on page 3 trade secret? | 1.2 If "Yes" in 1.1, is this copy: | 1.3 Reporting Year |
|---|---|---|---|
| | [ ] Yes (Answer question 1.2; Attach substantiation forms.) [ ] No (Do not answer 1.2; Go to question 1.3.) | [ ] Sanitized [ ] Unsanitized | 19 ____ |

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official

Signature | Date signed

**3. FACILITY IDENTIFICATION**

3.1
- Facility or Establishment Name
- Street Address
- City | County
- State | Zip Code
- TRI Facility Identification Number

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [ ] Part of a facility.

3.3 Technical Contact | Telephone Number (include area code)

3.4 Public Contact | Telephone Number (include area code)

3.5 SIC Code (4 digit) a. | b. | c. | d. | e. | f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| | | | | | |

3.7 Dun & Bradstreet Number(s) a. | b.

3.8 EPA Identification Number(s) (RCRA I.D. No.) a. | b.

3.9 NPDES Permit Number(s) a. | b.

3.10 Receiving Streams or Water Bodies (enter one name per box)
a. | b.
c. | d.
e. | f.

3.11 Underground Injection Well Code (UIC) Identification Number(s) a. | b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company | 4.2 Parent Company's Dun & Bradstreet Number

LOCATION / FACILITY / EMISSION POINT: 2 8 2 2 0 0 1 8 2 8 0 0 2 2 1

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

C/O APPL. 92 GROUP

| 1 NAME OF OWNER/FIRM | 9 NAME OF AUTHORIZED AGENT | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |
| **2 NUMBER AND STREET ADDRESS** | **11 NUMBER AND STREET ADDRESS** | | **20 FACILITY LOCATION (NUMBER AND STREET ADDRESS)** |
| 1101 Prospect Avenue | 55 Southern Boulevard | | 1101 Prospect Avenue |
| **3 CITY - TOWN - VILLAGE / 4 STATE / 5 ZIP** | **12 CITY - TOWN - VILLAGE / 13 STATE / 14 ZIP** | | **21 CITY - TOWN - VILLAGE / 22 ZIP** |
| Westbury / N.Y. / 11590 | Nesconset / N.Y. / 11767 | | Westbury, New York / 11590 |
| **6 OWNER CLASSIFICATION** | **15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION / 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO / 17 TELEPHONE** | | **23 BUILDING NAME OR NUMBER / 24 FLOOR NAME OR NUMBER** |
| A ☐ COMMERCIAL C ☐ UTILITY E ☐ STATE F ☐ MUNICIPAL H ☐ HOSPITAL I ☐ RESIDENTIAL | Robert J. Lee / 067049 / (516) 979-7788 | | 1 / 1 |
| B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC. INST. J ☐ OTHER | | | **25 START UP DATE (MO / YR) / 26 DRAWING NUMBERS OF PLANS SUBMITTED** |
| **7 NAME & TITLE OF OWNERS REPRESENTATIVE / 8 TELEPHONE** | **18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT** | | MPE-A10 |
| Patrick Tighe, Superintendent of Facil. / (516) 334-1300 | | | **27 PERMIT TO CONSTRUCT** A ☐ NEW SOURCE B ☐ MODIFICATION / **28 CERTIFICATE TO OPERATE** A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION |

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN.) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEAS. Winter | Spring | Summer | Fa |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 2 2 | 140 | 13 C | 34 C | 10 | 70 | 45.00 | 1472 | 1308 | 2.5 C | 231 C | 2.5 | 2.5 | 2.5 | 2.5 |

41 DESCRIBE PROCESS OR UNIT

This unit provides ventilation for a spray booth used for testing powders.

| 42 EMISSION CONTROL EQUIPMENT I.D | 43 CONTROL TYPE | 44 MANUFACTURER'S NAME AND MODEL NUMBER | 45 DISPOSAL METHOD | 46 DATE INSTALLED MONTH / YEAR | 47 USEFUL LIFE |
|---|---|---|---|---|---|
| 22 C | 98 C | Metco Wet Collector, 4CW C | 6 C | 6/76 C | 20 C |
| 22 A | 12 A | IMPINGEMENT PLATE A | 6 A | 6/76 A | 20 A |

J-FORM ATTACHED

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

| 54 CONTAMINANT NAME | 55 CAS NUMBER | 56 INPUT OR PRODUCTION | 57 UNIT | 58 ENV. RATING | 59 EMISSIONS ACTUAL | 60 UNIT | 61 HOURS PER | 62 PERMISSIBLE | 63 % CONTROL EFFICIENCY | 64 HOURLY EMISSIONS (LBS/HR) ERP | 65 ACTUAL | 66 ANNUAL EMISSIONS (LBS/YR) ACTUAL | 67 10³ | 68 PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nickle | 07 44 0-0 2-0 C | | | A C | 0.049 C | 1 C | 6 C | .049 C | 95 C | 0.98 C | 0.049 C | 2.832 C | 1 C | 2.832 C |
| Cobalt | 07 4 40 4 8-4 A | | | B A | 0.0060 A | 1 A | 6 A | .006 A | 95 A | 0.114 A | 0.0060 A | 3.29 A | 0 A | 3.29 A |
| Molybdenum | 07 4 39 9 8-7 A | | | C A | 0.043 A | 1 A | 6 A | .043 A | 95 A | 0.86 A | 0.043 A | 2.485 A | 1 A | 2.485 A |
| Titanium Dioxide | 13 4 63 6 7-7 A | | | C A | 0.011 A | 1 A | 6 A | .011 A | 95 A | 0.22 A | 0.011 A | 6.36 A | 0 A | 6.36 A |
| Chromium | 07 4 40 4 7-3 A | | | A A | 0.004 A | 1 A | 6 A | .004 A | 95 A | 0.08 A | 0.004 A | 2.31 A | 0 A | 2.31 A |
| Boron Nitride | 10043-11-5 A | | | C A | 0.0013 A | 2 A | 6 A | .15 A | 95 A | 0.03 A | 0.0015 A | 2.9 A | -1 A | 2.9 A |

| 144 SOLID FUEL TYPE | 145 TONS/YR | 146 %S | 147 LIQUID FUEL TYPE | 148 THOUSANDS OF GALLONS/YR | 149 %S | 150 GAS TYPE | 151 THOUSANDS OF CF/YR | 152 BTU/CF |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| 153 APPLICABLE RULE | 154 APPLICABLE RULE |
|---|---|
| 212 | |

For completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee — DATE: 11-25-91

| 156 LOCATION CODE | 157 FACILITY ID NO. | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 SIC NUMBER | 161 DATE APPL. RECEIVED | 162 DATE APPL. REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 2 8 2 2 0 0 | 1 8 2 8 | 6 2 2 2 5 1 | 3 1 4 3 5 6 9 | | / / | 12/11/92 | BIBCAP |

## PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

210 — 9/6/339

## CERTIFICATE TO OPERATE

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | | 60/VSI |

310 & 311C-312C

173
1. ☑ INSPECTED BY 426 V61 — DATE 9/7/91
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3. ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DENIED — DATE — INITIALED

174 SPECIAL CONDITIONS:

1 AG1 - COMPLIANCE

2 3195

LOCATION 28 22 00 | FACILITY / EMISSION POINT 18 28 00 02 2

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-41-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

| | | | |
|---|---|---|---|
| 1 NAME OF OWNER/FIRM: Metco-Division of Perkin Elmer | 9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788 | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM): |
| 2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue | 11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard | | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue |
| 3 CITY - TOWN - VILLAGE: Westbury | 4 STATE: N.Y. | 5 ZIP: 11590 | 12 CITY - TOWN - VILLAGE: Nesconset | 13 STATE: N.Y. | 14 ZIP: 11767 | 21 CITY - TOWN - VILLAGE: Westbury, New York | 22 ZIP: 11590 |
| 6 OWNER CLASSIFICATION: A [ ] COMMERCIAL C [ ] UTILITY E [ ] STATE F [X] MUNICIPAL H [ ] HOSPITAL I [ ] RESIDENTIAL B [X] INDUSTRIAL D [ ] FEDERAL G [ ] EDUC INST J [ ] OTHER | 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee | 16 NYS P.E. OR ARCHITECT LICENSE NO: 067049 | 17 TELEPHONE: (516) 979-7788 | 23 BUILDING NAME OR NUMBER: 1 | 24 FLOOR NAME OR NUMBER: 1 |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac. | 8 TELEPHONE: (516) 334-1300 | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | | 25 START UP DATE: MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10 |
| | | | | 27 PERMIT TO CONSTRUCT: A [ ] NEW SOURCE B [ ] MODIFICATION | 28 CERTIFICATE TO OPERATE: A [ ] NEW SOURCE C [ ] EXISTING SOURCE B [X] MODIFICATION |

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02 | 140 | 13 | 34 | 10 | 70 | 45.00 | 1472 | | 2.5 | 231 | 25 | 25 | 25 | 25 |

DESCRIBE PROCESS OR UNIT: CONTINUED

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| | | | | / | |
| | | CONTINUED | | / | |

CALCULATIONS

CONTINUED

PAGE 2 of 2

J-FORM- 282200-1828-00022

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS HOURLY OPT | EMISSIONS PERMISSIBLE | % CONTROL EFFIC CY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) 10³ | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tungsten Carbide | 12070-12-1 | | | B | 0.014 | 1 | 6 | .014 | 95 | 0.28 | 0.014 | 8.09 | 0 | 8.09 |
| Copper | 07440-50-8 | | | C | 0.004 | 1 | 6 | .004 | 95 | 0.08 | 0.004 | 2.31 | 0 | 2.31 |
| Chromium Oxide (CRIII) | 01308-38-9 | | | B | 0.009 | 1 | 6 | .009 | 95 | 0.18 | 0.009 | 5.20 | 0 | 5.2 |
| Iron | 07439-89-6 | | | C | 0.005 | 1 | 6 | .005 | 95 | 0.10 | 0.005 | 2.89 | 0 | 2.89 |
| Aluminum Oxide | 01344-28-1 | | | C | 0.008 | 1 | 6 | .008 | 95 | 0.16 | 0.008 | 4.62 | 0 | 4.62 |
| Other Particulate | NY075-00-0 | | | B | 0.230 | 1 | 6 | .230 | 95 | 4.6 | 0.230 | 1.329 | 2 | 1.329 |

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL %S | LIQUID FUEL TYPE | LIQUID FUEL THOUSANDS OF GALLONS/YR | LIQUID FUEL %S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

For completion of construction sign the statement listed below and forward to the appropriate field representative

I/WE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert Lee

DATE: 11-25-91

| LOCATION CODE | FACILITY ID NO | U T M E | U T M N | SIC NUMBER | DATE APPLICATION RECEIVED | DATE APPLICATION REVIEWED | REVIEWED BY |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

## PERMIT TO CONSTRUCT

DATE ISSUED | DATE OF EXPIRATION | SIGNATURE OF APPROVAL | FEE

1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THE PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND AN ACCEPTABLE INSPECTION REPORT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

DATE ISSUED / / | EXPIRATION DATE / / | SIGNATURE OF APPROVAL | FEE

1 [ ] INSPECTED BY ____ DATE ____
2 [ ] INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3 [ ] ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 [ ] APPLICATION FOR C.O. DENIED ____ DATE ____ INITIALED ____

SPECIAL CONDITIONS

1 | 2
3 | 4
5 | 6

LOCATION 28 22 00 | FACILITY / EMISSION POINT 18 28 | 00 02 3 1

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 78-15-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

c/o APR 92 GROUP

| 1 NAME OF OWNER/FIRM | 9 NAME OF AUTHORIZED AGENT | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |

| 2 NUMBER AND STREET ADDRESS | 11 NUMBER AND STREET ADDRESS | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS) |
|---|---|---|
| 1101 Prospect Avenue | 55 Southern Boulevard | 1101 Prospect Avenue |

| 3 CITY - TOWN - VILLAGE | 4 STATE | 5 ZIP | 12 CITY - TOWN - VILLAGE | 13 STATE | 14 ZIP | 21 CITY - TOWN - VILLAGE | 22 ZIP |
|---|---|---|---|---|---|---|---|
| Westbury | N.Y. | 11590 | Nesconset | N.Y. | 11767 | Westbury, New York | 11590 |

| 23 BUILDING NAME OR NUMBER | 24 FLOOR NAME OR NUMBER |
|---|---|
| 1 | 1 |

6 OWNER CLASSIFICATION: E ☐ STATE, H ☐ HOSPITAL; A ☐ COMMERCIAL, C ☐ UTILITY, F ☐ MUNICIPAL, I ☐ RESIDENTIAL; B ☒ INDUSTRIAL, D ☐ FEDERAL, G ☐ EDUC INST, J ☐ OTHER

| 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO. | 17 TELEPHONE |
|---|---|---|
| Robert J. Lee | 067049 | (516) 979-7788 |

| 25 START UP DATE MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED |
|---|---|
| 8 / | MPE-A10 |

| 7 NAME & TITLE OF OWNERS REPRESENTATIVE | 8 TELEPHONE | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT |
|---|---|---|
| Patrick Tighe Superintendent of Fac. | (516) 334-1300 | |

27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE, B ☐ MODIFICATION

28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE, C ☐ EXISTING SOURCE, B ☒ MODIFICATION

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) |
|---|---|---|---|---|---|---|---|
| 0 2 3 | 140 | 13 C | 34 C | 11 | 70 | 50.00 | 1975 |

| 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|
| A1300 | 2.5 | 231 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT

This unit provides ventilation for a spray booth used for testing powders.

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 23 | 43 98 | 44 Metco Wet Collector, 4CW | 45 6 | 46 6/76 | 47 20 |
| 48 23 | 49 12 | 50 IMPINGEMENT PLATE | 51 6 | 52 6/76 | 53 20 |

J-FORM ATTACHED

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV. RATING | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS HOURS/DAY | EMISSIONS PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) TONS | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Nickle | 55 07 44 0- 0 2- 0 | 56 | 57 | 58 A | 59 0.049 | 60 1 | 61 6 | 62 .044 | 63 95 | 64 0.98 | 65 0.049 | 66 2.832 | 67 1 | 68 2.832 |
| 69 Cobalt | 70 07 4 40- 4 8- 4 | 71. | 72. | 73 B | 74 .006 0.0057 | 75 1 | 76 6 | 77 .006 | 78 95 | 79 0.114 | 80 .006 0.0057 | 81 3.29 | 82 0 | 83 3.29 |
| 84 Molybdenum | 85 07 4 39- 9 8- 7 | 86 | 87 | 88 C | 89 0.043 | 90 1 | 91 6 | 92 .043 | 93 95 | 94 0.86 | 95 0.043 | 96 2.485 | 97 1 | 98 2.485 |
| 99 Titanium Dioxide | 100 13 4 63- 6 7- 7 | 101. | 102 | 103 C | 104 0.011 | 105 1 | 106 6 | 107 .011 | 108 95 | 109 0.22 | 110 0.011 | 111 6.36 | 112 0 | 113 6.36 |
| 114 Chromium | 115 07 4 40- 4 7- 3 | 116 | 117 | 118 A | 119 0.004 | 120 1 | 121 6 | 122 .004 | 123 95 | 124 0.08 | 125 0.004 | 126 2.31 | 127 0 | 128 2.31 |
| 129 Boron Nitride | 130 10043-11-5 | 131 | 132 | 133 C | 134 [illegible] 15 | 135 2 | 136 6 | 137 .5 | 138 95 | 139 [illegible] | 140 [illegible] | 141 2.9 | 142 1 | 143 2.9 |

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL % S | LIQUID FUEL TYPE | LIQUID FUEL THOUSANDS OF GALLONS/YR | LIQUID FUEL % S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF |
|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 |

| APPLICABLE RULE | APPLICABLE RULE |
|---|---|
| 153 212 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee — DATE: 11-25-91

| 156 LOCATION CODE | 157 FACILITY ID NO | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 28 22 00 | 1 B 28 | 622.2 | 5 13 4 35 6 9 | | / / | 02/11/92 | BIG CAP |

## PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | Theodore J. Dupee | 50/161 |

3106-3116 - 312C

173
1. ☑ INSPECTED BY 426 VSI — DATE 9/7/91
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3. ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DENIED — DATE — INITIALED

174 SPECIAL CONDITIONS:

1 AGI - COMPLIANCE

2 3195

JUN 15 1992

LOCATION 2822200 FACILITY / EMISSION POINT 18280023B

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-41-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

| | | | |
|---|---|---|---|
| 1 NAME OF OWNER/FIRM: Metco-Division of Perkin Elmer | 9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788 | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM): |
| 2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue | 11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard | | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue |
| 3 CITY - TOWN - VILLAGE: Westbury; 4 STATE: N.Y.; 5 ZIP: 11590 | 12 CITY - TOWN - VILLAGE: Nesconset; 13 STATE: N.Y.; 14 ZIP: 11767 | | 21 CITY - TOWN - VILLAGE: Westbury, New York; 22 ZIP: 11590 |
| | | | 23 BUILDING NAME OR NUMBER: 1; 24 FLOOR NAME OR NUMBER: 1 |
| 6 OWNER CLASSIFICATION: A [ ] COMMERCIAL B [X] INDUSTRIAL C [ ] UTILITY D [ ] FEDERAL E [ ] STATE F [ ] MUNICIPAL G [ ] EDUC INST H [ ] HOSPITAL I [ ] RESIDENTIAL J [ ] OTHER | 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee; 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO.: 067049; 17 TELEPHONE: (516) 979-7788 | | 25 START UP DATE: MO / YR; 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10 |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac.; 8 TELEPHONE: (516) 334-1300 | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | | 27 PERMIT TO CONSTRUCT: A [ ] NEW SOURCE B [ ] MODIFICATION; 28 CERTIFICATE TO OPERATE: A [ ] NEW SOURCE C [ ] EXISTING SOURCE B [X] MODIFICATION |

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 023 | 140 | 13 | 34 | 11 | 70 | 50.00 | 1975 | | 2.5 | 231 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT: 1 CONTINUED

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| | | 50 CONTINUED | | | |

CALCULATIONS

CONTINUED

PAGE 2 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS ACTUAL | UNIT | HOURS | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) TONS | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tungsten Carbide | 12070-12-1 | | | B | 0.014 | 1 | 6 | .014 | 95 | 0.28 | 0.014 | 8.09 | 0 | 8.09 |
| Copper | 07440-50-8 | | | C | 0.004 | 1 | 6 | .004 | 95 | 0.08 | 0.004 | 2.31 | 0 | 2.31 |
| Chromium Oxide (CRIII) | 01308-38-9 | | | B | 0.009 | 1 | 6 | .009 | 95 | 0.18 | 0.009 | 5.20 | 0 | 5.2 |
| Iron | 07439-89-6 | | | C | 0.005 | 1 | 6 | .005 | 95 | 0.10 | 0.005 | 2.89 | 0 | 2.89 |
| Aluminum Oxide | 01344-28-1 | | | C | 0.008 | 1 | 6 | .008 | 95 | 0.16 | 0.008 | 4.62 | 0 | 4.62 |
| Other Particulate | NY075-00-0 | | | B | 0.230 | 1 | 6 | .23 | 95 | 4.6 | 0.230 | 1.329 | 2 | 1.329 |

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | % S | LIQUID FUEL TYPE | LIQUID FUEL THOUSANDS OF GALLONS/YR | % S | GAS TYPE | GAS THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 |

For completion of construction sign the statement listed below and forward to the appropriate field representative.

155 THIS PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS. SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee; DATE: 11-25-9

| 156 LOCATION CODE | 157 FACILITY ID NO. | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 SIC NUMBER | 161 DATE APPL. RECEIVED | 162 DATE APPL. REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

## PERMIT TO CONSTRUCT

165 DATE ISSUED / 166 EXPIRATION DATE / 167 SIGNATURE OF APPROVAL / 168 FEE

1 DEVIATION FROM APPROVED PLANS INVALIDATES THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

169 DATE ISSUED / / / 170 EXPIRATION DATE / / / 171 SIGNATURE OF APPROVAL / 172 FEE

1 [ ] INSPECTED BY ..... DATE .....
2 [ ] INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 [ ] ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 [ ] APPLICATION FOR C.O. DENIED ..... DATE ..... INITIALED

174 SPECIAL CONDITIONS:

1 2 3 4 5 6

LOCATION 2 8 2 2 0 0 | FACILITY 1 8 2 8 | EMISSION POINT 0 0 0 2 4 — I

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

c/o APR 92 GROUP

| 1 NAME OF OWNER/FIRM | 9 NAME OF AUTHORIZED AGENT | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |
| **2 NUMBER AND STREET ADDRESS** | **11 NUMBER AND STREET ADDRESS** | | **20 FACILITY LOCATION (NUMBER AND STREET ADDRESS)** |
| 1101 Prospect Avenue | 55 Southern Boulevard | | 1101 Prospect Avenue |
| **3 CITY - TOWN - VILLAGE** / **4 STATE** / **5 ZIP** | **12 CITY - TOWN - VILLAGE** / **13 STATE** / **14 ZIP** | | **21 CITY - TOWN - VILLAGE** / **22 ZIP** |
| Westbury / N.Y. / 11590 | Nesconset / N.Y. / 11767 | | Westbury, New York / 11590 |
| | | | **23 BUILDING NAME OR NUMBER** 1 / **24 FLOOR NAME OR NUMBER** 1 |

6 OWNER CLASSIFICATION: A ☐ COMMERCIAL C ☐ UTILITY F ☐ MUNICIPAL I ☐ RESIDENTIAL B ☒ INDUSTRIAL O ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER E ☐ STATE H ☐ HOSPITAL

| 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO | 17 TELEPHONE | 25 START UP DATE MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED |
|---|---|---|---|---|
| Robert J. Lee | 067049 | (516) 979-7788 | / | MPE-A10 |

| 7 NAME & TITLE OF OWNERS REPRESENTATIVE | 8 TELEPHONE | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | 27 PERMIT TO CONSTRUCT | 28 CERTIFICATE TO OPERATE |
|---|---|---|---|---|
| Patrick Tighe<br>Superintendent of Fac. | (516) 334-1300 | | A ☐ NEW SOURCE<br>B ☐ MODIFICATION | A ☐ NEW SOURCE C ☐ EXISTING SOURCE<br>B ☒ MODIFICATION |

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 2 4 | 140 | 13 A | 34 A | 11 | 70 | 50.00 | 1975 | 1308 | 2.5 | 231 C | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT

1. This unit provides ventilation for a spray booth used for
3. testing powders.
5.
7.

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 2F | 43 98 C | 44 Metco Wet Collector, 4CW C | 45 6 C | 46 02/91 C | 47 20 |
| 48 2H | 49 12 A | 50 Impingement Plate A | 51 6 A | 52 02/91 A | 53 20 A |

J-FORM ATTACHED!

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS FLOW DET | EMISSIONS PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) 10* | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Nickle | 55 07 44 0-0 2-0 | 56 | 57 | 58 A | 59 0.049 | 60 1 | 61 6 | 62 .049 | 63 95 | 64 0.98 | 65 0.049 | 66 2.832 | 67 1 | 68 2.832 |
| 69 Cobalt | 70 07 4 40-4 8-4 | 71 | 72 | 73 B | 74 0.0060 | 75 1 | 76 6 | 77 .006 | 78 95 | 79 0.114 | 80 0.0060 | 81 3.29 | 82 0 | 83 3.24 |
| 84 Molybdenum | 85 07 4 39-9 8-7 | 86 | 87 | 88 C | 89 0.043 | 90 1 | 91 6 | 92 .043 | 93 95 | 94 0.86 | 95 0.043 | 96 2.485 | 97 1 | 98 2.485 |
| 99 Titanium Dioxide | 100 13 4 63-6 7-7 | 101 | 102 | 103 C | 104 0.011 | 105 1 | 106 6 | 107 .011 | 108 95 | 109 0.22 | 110 0.011 | 111 6.36 | 112 0 | 113 6.36 |
| 114 Chromium | 115 07 4 40-4 7-3 | 116 | 117 | 118 A | 119 0.004 | 120 1 | 121 6 | 122 .004 | 123 95 | 124 0.08 | 125 0.004 | 126 2.31 | 127 0 | 128 2.31 |
| 129 Boron Nitride | 130 10043-11-5 | 131 | 132 | 133 C | 134 0.0015 | 135 2 | 136 6 | 137 .5 | 138 95 | 139 | 140 | 141 2.9 | 142 1 | 143 2.9 |

| SOLID FUEL TYPE | TONS/YR | % S | LIQUID FUEL TYPE | THOUSANDS OF GALLONS/YR | % S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE 153 | APPLICABLE RULE 154 |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 212 | |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee — DATE 11-25-91

| 156 LOCATION CODE | 157 FACILITY ID NO | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL. RECEIVED | 162 DATE APPL. REVIEWED | 163 REVIEWED BY: |
|---|---|---|---|---|---|---|---|
| 2 8 2 2 0 0 | 1 8 2 8 | 6 2 2 2 | 5 1 3 4 | 3 5 6 9 | / / | 02 / 13 / 92 | BLG-CAP |

## PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | Theodore J. Piepe | V61 |

3106-3110-312C

173
1. ☑ INSPECTED BY 428 V61 DATE 9/7/91
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3. ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DENIED — DATE — INITIALED

174 SPECIAL CONDITIONS:
1. AG-1 COMPLIANCE
2. 3195

LOCATION 2 8 2 2 0 0 / FACILITY 1 8 2 8 / EMISSION POINT 0 0 2 4

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
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GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

| | | | |
|---|---|---|---|
| 1 NAME OF OWNER/FIRM: Metco-Division of Perkin Elmer | 9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788 | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM): |
| 2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue | 11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard | | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue |
| 3 CITY - TOWN - VILLAGE: Westbury; 4 STATE: N.Y.; 5 ZIP: 11590 | 12 CITY - TOWN - VILLAGE: Nesconset; 13 STATE: N.Y.; 14 ZIP: 11767 | | 21 CITY - TOWN - VILLAGE: Westbury, New York; 22 ZIP: 11590 |
| | | | 23 BUILDING NAME OR NUMBER: 1; 24 FLOOR NAME OR NUMBER: 1 |
| 6 OWNER CLASSIFICATION: A [ ] COMMERCIAL C [ ] UTILITY E [ ] STATE F [ ] MUNICIPAL H [ ] HOSPITAL I [ ] RESIDENTIAL B [X] INDUSTRIAL D [ ] FEDERAL G [ ] EDUC INST J [ ] OTHER | 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee; 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO.: 067049; 17 TELEPHONE: (516) 979-7788 | | 25 START UP DATE: MO / YR; 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10 |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac.; 8 TELEPHONE: (516) 334-1300 | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | | 27 PERMIT TO CONSTRUCT: A [ ] NEW SOURCE B [ ] MODIFICATION; 28 CERTIFICATE TO OPERATE: A [ ] NEW SOURCE C [ ] EXISTING SOURCE B [X] MODIFICATION |

| 29 EMISSION POINT I.D. | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN.) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 2 4 | 140 | 13 | 34 | 11 | 70 | 50.00 | 1975 | | 2.5 | 231 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT: CONTINUED

| 42 EMISSION CONTROL EQUIPMENT I.D | 43 CONTROL TYPE | 44 MANUFACTURER'S NAME AND MODEL NUMBER | 45 DISPOSAL METHOD | 46 DATE INSTALLED MONTH / YEAR | 47 USEFUL LIFE |
|---|---|---|---|---|---|
| 48 | 49 | 50 CONTINUED | 51 | 52 / | 53 |

CALCULATIONS

CONTINUED

PAGE 2 of 2

J-Form - 282200-1828-00024

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS HOW OFTEN | EMISSIONS PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) 10* | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tungsten Carbide | 12070-12-1 | | | B | 0.014 | 1 | 6 | .014 | 95 | 0.28 | 0.014 | 8.09 | 0 | 8.09 |
| Copper | 07440-50-8 | | | C | 0.004 | 1 | 6 | .004 | 95 | 0.08 | 0.004 | 2.31 | 0 | 2.31 |
| Chromium Oxide (CRIII) | 01308-38-9 | | | B | 0.009 | 1 | 6 | .009 | 95 | 0.18 | 0.009 | 5.20 | 0 | 5.20 |
| Iron | 07439-89-6 | | | C | 0.005 | 1 | 6 | .005 | 95 | 0.10 | 0.005 | 2.89 | 0 | 2.89 |
| Aluminum Oxide | 01344-28-1 | | | C | 0.008 | 1 | 6 | .008 | 95 | 0.16 | 0.008 | 4.62 | 0 | 4.62 |
| Other Particulate | NY075-000 | | | B | 0.230 | 1 | 6 | .23 | 95 | 4.6 | 0.230 | 1.329 | 2 | 1.329 |

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL %S | LIQUID FUEL TYPE | LIQUID FUEL THOUSANDS OF GALLONS/YR | LIQUID FUEL %S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 |

For completion of construction sign the statement listed below and forward to the appropriate field representative

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee; DATE: 11-21-91

IF PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

| 156 LOCATION CODE | 157 FACILITY ID. NO | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

## PERMIT TO CONSTRUCT

164 DATE ISSUED / 165 EXPIRATION DATE / 166 SIGNATURE OF APPROVAL / 167 FEE

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

169 DATE ISSUED / / / 170 EXPIRATION DATE / / / 171 SIGNATURE OF APPROVAL / 172 FEE

173
1 [ ] INSPECTED BY _____ DATE _____
2 [ ] INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 [ ] ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 [ ] APPLICATION FOR C.O. DENIED _____ DATE _____ INITIALED

174 SPECIAL CONDITIONS:

LOCATION / FACILITY / EMISSION POINT: 2 8 2 2 0 0 / 1 8 2 8 / 0 0 2 8 I

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
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WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 78-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

c/o ADR. 92 GROUP

| 1 NAME OF OWNER/FIRM | 9 NAME OF AUTHORIZED AGENT | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |
| **2 NUMBER AND STREET ADDRESS** | **11 NUMBER AND STREET ADDRESS** | | **20 FACILITY LOCATION (NUMBER AND STREET ADDRESS)** |
| 1101 Prospect Avenue | 55 Southern Boulevard | | 1101 Prospect Avenue |
| **3 CITY - TOWN - VILLAGE / 4 STATE / 5 ZIP** | **12 CITY - TOWN - VILLAGE / 13 STATE / 14 ZIP** | | **21 CITY - TOWN - VILLAGE / 22 ZIP** |
| Westbury / N.Y. / 11590 | Nesconset / N.Y. / 11767 | | Westbury, New York / 11590 |
| **6 OWNER CLASSIFICATION** | **15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION / 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO / 17 TELEPHONE** | | **23 BUILDING NAME OR NUMBER / 24 FLOOR NAME OR NUMBER** |
| E ☐ STATE H ☐ HOSPITAL<br>A ☐ COMMERCIAL C ☐ UTILITY F ☐ MUNICIPAL I ☐ RESIDENTIAL<br>B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER | Robert J. Lee / 067049 / (516) 979-7788 | | 1 / 1 |
| **7 NAME & TITLE OF OWNERS REPRESENTATIVE / 8 TELEPHONE** | **18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT** | | **25 START UP DATE (MO / YR) / 26 DRAWING NUMBERS OF PLANS SUBMITTED** |
| Patick Tighe<br>Superintendent of Fac. / (516) 334-1300 | | | MPE-A10 |
| | | | **27 PERMIT TO CONSTRUCT**: A ☐ NEW SOURCE B ☐ MODIFICATION<br>**28 CERTIFICATE TO OPERATE**: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION |

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON (Winter / Spring / Summer / Fall) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 2 8 | 140 | 13 C | 34 C | 11 | 70 | 50.00 | 1975 | 1303 | 2.5 C | 231 C | 25 / 25 / 25 / 25 |

41 DESCRIBE PROCESS OR UNIT

This unit provides ventilation for a spray booth used for testing powders.

| 42 EMISSION CONTROL EQUIPMENT I.D | 43 CONTROL TYPE | 44 MANUFACTURER'S NAME AND MODEL NUMBER | 45 DISPOSAL METHOD | 46 DATE INSTALLED MONTH / YEAR | 47 USEFUL LIFE |
|---|---|---|---|---|---|
| 28 C | 98 C | Metco Wet Collector, 4CW C | 6 C | 02/91 C | 20 C |
| 20 A | 12 A | 50 Impingement Plate A | 6 A | 02/91 A | 20 A |

J-FORM ATTACHED

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV. RATING | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS HOW DET | EMISSIONS PERMISSIBLE | % CONTROL EFFIC'CY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) 10³ | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Nickle | 55 07 44 0-0 2-0 | 56 | 57 | 58 A | 59 0.049 | 60 1 | 61 6 | 62 .049 | 63 95 | 64 0.98 | 65 0.049 | 66 2.832 | 67 1 | 68 2.832 |
| 69 Cobalt | 70 07 4 40-4 8-4 | 71 | 72 | 73 B | 74 0.0060 | 75 1 | 76 6 | 77 .006 | 78 95 | 79 0.114 | 80 0.0060 | 81 3.29 | 82 0 | 83 3.29 |
| 84 Molybdenum | 85 07 4 39-9 8-7 | 86 | 87 | 88 C | 89 0.043 | 90 1 | 91 6 | 92 .043 | 93 95 | 94 0.86 | 95 0.043 | 96 2.485 | 97 1 | 98 2.485 |
| 99 Titanium Dioxide | 100 13 4 63-6 7-7 | 101 | 102 | 103 C | 104 0.011 | 105 1 | 106 6 | 107 .011 | 108 95 | 109 0.22 | 110 0.011 | 111 6.36 | 112 0 | 113 6.36 |
| 114 Chromium | 115 07 4 40-4 7-3 | 116 | 117 | 118 A | 119 0.004 | 120 1 | 121 6 | 122 .004 | 123 95 | 124 0.08 | 125 0.004 | 126 2.31 | 127 0 | 128 2.31 |
| 129 Boron Nitride | 130 10043-11-5 | 131 | 132 | 133 C | 134 0.[illegible] | 135 2 | 136 6 | 137 .5 | 138 95 | 139 [illegible] | 140 [illegible] | 141 2.9 | 142 -1 | 143 2.9 |

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL %S | LIQUID FUEL TYPE | LIQUID FUEL THOUSANDS OF GALLONS/YR | LIQUID FUEL %S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 212 | 154 |

For completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS.

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J Lee — DATE: 11-25-91

| 156 LOCATION CODE | 157 FACILITY ID. NO | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY: |
|---|---|---|---|---|---|---|---|
| 2822 00 | 1828 | 622.2 | 5134 | 3596 | / / | 02/18/92 | BIGCAP |

## PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | [signature] | $50/VSI |

310C-311C-312C

173
1 ☑ INSPECTED BY 428 VSI — DATE 9/7/91
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3 ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O DENIED — DATE — INITIALED

174 SPECIAL CONDITIONS:

1 AG-1 Compliance
2 3195

LOCATION 2 8 2 4 0 0 | FACILITY 1 8 2 8 0 0 | EMISSION POINT 0 2 8

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

1 NAME OF OWNER/FIRM: Metco-Division of Perkin Elmer

2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue

3 CITY - TOWN - VILLAGE: Westbury | 4 STATE: N.Y. | 5 ZIP: 11590

6 OWNER CLASSIFICATION: A ☐ COMMERCIAL C ☐ UTILITY E ☐ STATE F ☐ MUNICIPAL H ☐ HOSPITAL I ☐ RESIDENTIAL B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER

7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac. | 8 TELEPHONE: (516) 334-1300

9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788

11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard

12 CITY - TOWN - VILLAGE: Nesconset | 13 STATE: N.Y. | 14 ZIP: 11767

15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO.: 067049 | 17 TELEPHONE: (516) 979-7788

18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT

19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM):

20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue

21 CITY - TOWN - VILLAGE: Westbury, New York | 22 ZIP: 11590

23 BUILDING NAME OR NUMBER: 1 | 24 FLOOR NAME OR NUMBER: 1

25 START UP DATE: MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10

27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION

28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION

| 29 EMISSION POINT ID. | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 028 | 140 | 13 | 34 | 11 | 70 | 50.00 | 1975 | | 2.5 | 231 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT

1 CONTINUED

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 | 43 | 44 | 45 | 46 / | 47 |
| 48 | 49 | 50 CONTINUED | 51 | 52 / | 53 |

CALCULATIONS

CONTINUED

PAGE 2 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV. RATING | EMISSIONS ACTUAL | UNIT | HRS/DET | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | TPY | PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tungsten Carbide | 12070-12-1 | | | B | 0.014 | 1 | 6 | .014 | 95 | 0.28 | 0.014 | 8.09 | 0 | 8.09 |
| Copper | 07440-50-8 | | | C | 0.004 | 1 | 6 | .004 | 95 | 0.08 | 0.004 | 2.31 | 0 | 2.31 |
| Chromium Oxide (CRIII) | 01308-38-9 | | | B | 0.009 | 1 | 6 | .009 | 95 | 0.18 | 0.009 | 5.20 | 0 | 5.20 |
| Iron | 07439-89-6 | | | C | 0.005 | 1 | 6 | .005 | 95 | 0.10 | 0.005 | 2.89 | 0 | 2.89 |
| Aluminum Oxide | 01344-28-1 | | | C | 0.008 | 1 | 6 | .008 | 95 | 0.16 | 0.008 | 4.62 | 0 | 4.62 |
| Other Particulate | NY075-000 | | | B | 0.230 | 1 | 6 | .23 | 95 | 4.6 | 0.230 | 1.329 | 2 | 1.329 |

| SOLID FUEL TYPE | TONS/YR | % S | LIQUID FUEL TYPE | THOUSANDS OF GALLONS/YR | % S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee | DATE: 11-25-91

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

| 156 LOCATION CODE | 157 FACILITY ID NO. | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL. RECEIVED | 162 DATE APPL. REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

## PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| / / | / / | | |

173
1 ☐ INSPECTED BY _____ DATE _____
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3 ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O. DENIED _____ DATE _____ INITIALED

174 SPECIAL CONDITIONS:

1 | 2 | 3 | 4 | 5 | 6

LOCATION 2 8 2 2 0 | FACILITY / EMISSION POINT 0 1 8 2 2 0 0 0 3 1

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 78-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

c/o ADE 92 GROUP

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. NAME OF OWNER/FIRM | Metco-Division of Perkin Elmer | | 9. NAME OF AUTHORIZED AGENT | Donnelly Engineering | 10. TELEPHONE (516) 979-7788 | 19. FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) | |
| 2. NUMBER AND STREET ADDRESS | 1101 Prospect Avenue | | 11. NUMBER AND STREET ADDRESS | 55 Southern Boulevard | | 20. FACILITY LOCATION (NUMBER AND STREET ADDRESS) | 1101 Prospect Avenue |
| 3. CITY - TOWN - VILLAGE | Westbury | 4. STATE N.Y. / 5. ZIP 11590 | 12. CITY - TOWN - VILLAGE | Nesconset | 13. STATE N.Y. / 14. ZIP 11767 | 21. CITY - TOWN - VILLAGE | Westbury, New York / 22. ZIP 11590 |
| 6. OWNER CLASSIFICATION | A ☐ COMMERCIAL C ☐ UTILITY E ☐ STATE F ☐ MUNICIPAL H ☐ HOSPITAL I ☐ RESIDENTIAL B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC. INST. J ☐ OTHER | | 15. NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | Robert J. Lee | 16. N.Y.S. P.E. OR ARCHITECT LICENSE NO. 067049 / 17. TELEPHONE (516) 979-7788 | 23. BUILDING NAME OR NUMBER | 1 / 24. FLOOR NAME OR NUMBER 1 |
| 7. NAME & TITLE OF OWNERS REPRESENTATIVE | Patrick Tighe, Superintendent of Fac. | 8. TELEPHONE (516) 334-1300 | 18. SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | | | 25. START UP DATE MO / YR | 26. DRAWING NUMBERS OF PLANS SUBMITTED MPE-A10 |
| | | | | | | 27. PERMIT TO CONSTRUCT A ☐ NEW SOURCE B ☐ MODIFICATION | 28. CERTIFICATE TO OPERATE A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION |

| 29. EMISSION POINT ID. | 30. GROUND ELEVATION (FT) | 31. HEIGHT ABOVE STRUCTURES (FT) | 32. STACK HEIGHT (FT) | 33. INSIDE DIMENSIONS (IN.) | 34. EXIT TEMP (°F) | 35. EXIT VELOCITY (FT/SEC) | 36. EXIT FLOW RATE (ACFM) | 37. SOURCE CODE | 38. HRS/DAY | 39. DAYS/YR | 40. % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 1 | 140 | 13 C | 34 C | 11 | 70 | 50.00 | 1975 | 1303 | 2.5 C | 231 C | 25 | 25 | 25 | 25 |

41. DESCRIBE PROCESS OR UNIT

1. This unit provides ventilation for a spray booth used for
3. testing powders.

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE | |
|---|---|---|---|---|---|---|
| 42. 31 C | 43. 98 C | 44. Metco Wet Collector, 4CW C | 45. 6 C | 46. 6/78 C | 47. 20 C | J-FORM ATTACHED |
| 48. 32 C | 49. 12 C | 50. Impingement Plate C | 51. 6 C | 52. 6/78 C | 53. 20 C | |

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV. RATING | EMISSIONS ACTUAL | UNIT | HOW OFT | PERMISSIBLE | % CONTROL EFFIC'CY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | TONS | PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54. Nickle | 55. 07 44 0-0 2-0 | 56. | 57. | 58. A | 59. 0.049 | 60. 1 | 61. 6 | 62. .049 | 63. 95 | 64. 0.98 | 65. 0.049 | 66. 2.832 | 67. 1 | 68. 2.832 |
| 69. Cobalt | 70. 07 4 40-4 8-4 | 71. | 72. | 73. B | 74. 0.0060 | 75. 1 | 76. 6 | 77. .006 | 78. 95 | 79. 0.114 | 80. 0.0060 | 81. 3.29 | 82. 0 | 83. 3.29 |
| 84. Molybdenum | 85. 07 4 39-9 8-7 | 86. | 87. | 88. C | 89. 0.043 | 90. 1 | 91. 6 | 92. .043 | 93. 95 | 94. 0.86 | 95. 0.043 | 96. 2.485 | 97. 1 | 98. 2.485 |
| 99. Titanium Dioxide | 100. 13 4 63-6 7-7 | 101. | 102. | 103. C | 104. 0.011 | 105. 1 | 106. 6 | 107. .011 | 108. 95 | 109. 0.22 | 110. 0.011 | 111. 6.36 | 112. 0 | 113. 6.36 |
| 114. Chromium | 115. 07 4 40-4 7-3 | 116. | 117. | 118. A | 119. 0.004 | 120. 1 | 121. 6 | 122. .004 | 123. 95 | 124. 0.08 | 125. 0.004 | 126. 2.31 | 127. 0 | 128. 2.31 |
| 129. Boron Nitride | 130. 10043-11-5 | 131. | 132. | 133. C | 134. 0.0003 | 135. 2 | 136. 6 | 137. .5 | 138. 95 | 139. 0.0015 | 140. 0.0015 | 141. 2.9 | 142. -1 | 143. 2.9 |

| SOLID FUEL TYPE | TONS/YR | % S | LIQUID FUEL TYPE | THOUSANDS OF GALLONS/YR | % S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE 153. 212 | APPLICABLE RULE 154. |
|---|---|---|---|---|---|---|---|---|---|---|
| 144. | 145. | 146. | 147. | 148. | 149. | 150. | 151. | 152. | | |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155. SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert Lee — DATE 11-25-91

| 156. LOCATION CODE | 157. FACILITY ID. NO. | 158. U.T.M. (E) | 159. U.T.M. (N) | 160. SIC NUMBER | 161. DATE APPL. RECEIVED | 162. DATE APPL. REVIEWED | 163. REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 2 8 2 2 0 0 | 1 8 2 8 | 6 2 2 2 | 5 1 3 4 | 3 5 6 9 | / / | 02 / 19 / 92 | BLCW |

## PERMIT TO CONSTRUCT

| 164. DATE ISSUED | 165. EXPIRATION DATE | 166. SIGNATURE OF APPROVAL | 167. FEE |
|---|---|---|---|
| / / | / / | | |

168.
1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

| 169. DATE ISSUED | 170. EXPIRATION DATE | 171. SIGNATURE OF APPROVAL | 172. FEE |
|---|---|---|---|
| 11/16/91 | 11/15/96 | [signature] | $80/151 |

310-31C - 312C

173.
1. ☑ INSPECTED BY 4281 VS/ DATE 9/7/91
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3. ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DENIED — DATE — INITIALED

174. SPECIAL CONDITIONS:
1. AG-1 COMPLIANCE
2. 3195

LOCATION 1 2 9 2 2 4 0 0 | FACILITY / EMISSION POINT 1 8 2 8 0 0 3 1 3

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

| | | | |
|---|---|---|---|
| 1 NAME OF OWNER / FIRM: Metco-Division of Perkin Elmer | 9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788 | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM): |
| 2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue | 11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard | | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue |
| 3 CITY - TOWN - VILLAGE: Westbury; 4 STATE: N.Y.; 5 ZIP: 11590 | 12 CITY - TOWN - VILLAGE: Nesconset; 13 STATE: N.Y.; 14 ZIP: 11767 | | 21 CITY - TOWN - VILLAGE: Westbury, New York; 22 ZIP: 11590 |
| 6 OWNER CLASSIFICATION: A ☐ COMMERCIAL C ☐ UTILITY F ☐ MUNICIPAL I ☐ RESIDENTIAL; B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER; E ☐ STATE H ☐ HOSPITAL | 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee; 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO: 067049; 17 TELEPHONE: (516) 979-7788 | | 23 BUILDING NAME OR NUMBER: 1; 24 FLOOR NAME OR NUMBER: 1 |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac.; 8 TELEPHONE: (516) 334-1300 | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | | 25 START UP DATE: MO / YR; 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10 |
| | | | 27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION; 28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION |

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 1 | 140 | 13 | 34 | 11 | 70 | 50.00 | 1975 | | 2.5 | 231 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT

1 CONTINUED

2 3 4 5 6 7 8

| 42 EMISSION CONTROL EQUIPMENT I.D. | 43 CONTROL TYPE | 44 MANUFACTURER'S NAME AND MODEL NUMBER | 45 DISPOSAL METHOD | 46 DATE INSTALLED MONTH / YEAR | 47 USEFUL LIFE |
|---|---|---|---|---|---|
| 48 | 49 | 50 CONTINUED | 51 | 52 / | 53 |

CALCULATIONS

CONTINUED

PAGE 2 of 2

| 54 CONTAMINANT NAME | 55 CAS NUMBER | 56 INPUT OR PRODUCTION | 57 UNIT | 58 ENV. RATING | 59 EMISSIONS ACTUAL | 60 UNIT | 61 HOW OFT | 62 PERMISSIBLE | 63 % CONTROL EFFICIENCY | 64 HOURLY EMISSIONS (LBS/HR) ERP | 65 ACTUAL | 66 ANNUAL EMISSIONS (LBS/YR) ACTUAL | 67 TOX | 68 PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tungsten Carbide | 1 2 0 7 0-1 2-1 | | | B | 0.014 | 1 | 6 | .014 | 95 | 0.28 | 0.014 | 8.09 | 0 | 8.09 |
| Copper | 0 7 4 4 0-5 0-8 | | | C | 0.004 | 1 | 6 | .004 | 95 | 0.08 | 0.004 | 2.31 | 0 | 2.31 |
| Chromium Oxide (CRIII) | 0 1 3 0 0-3 8-9 | | | B | 0.009 | 1 | 6 | .009 | 95 | 0.18 | 0.009 | 5.20 | 0 | 5.20 |
| Iron | 07439-89-6 | | | C | 0.005 | 1 | 6 | .005 | 95 | 0.10 | 0.005 | 2.89 | 0 | 2.89 |
| Aluminum Oxide | 0 1 3 4 4-2 8-1 | | | C | 0.008 | 1 | 6 | .008 | 95 | 0.16 | 0.008 | 4.62 | 0 | 4.62 |
| Other Particulate | N Y 0 7 5-0 0 0 | | | B | 0.230 | 1 | 6 | .23 | 95 | 4.6 | 0.230 | 1.329 | 2 | 1.329 |

| 144 SOLID FUEL TYPE | 145 TONS/YR | 146 % S | 147 LIQUID FUEL TYPE | 148 THOUSANDS OF GALLONS/YR | 149 % S | 150 GAS TYPE | 151 THOUSANDS OF CF/YR | 152 BTU/CF | 153 APPLICABLE RULE | 154 APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative.
THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS.

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee; DATE: 11-21-91

| 156 LOCATION CODE | 157 FACILITY ID. NO. | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 SIC NUMBER | 161 DATE APPL. RECEIVED | 162 DATE APPL. REVIEWED | 163 REVIEWED BY: |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

## PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| / / | / / | | |

173
1 ☐ INSPECTED BY _____ DATE _____
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C O DENIED _____ DATE _____ INITIALED

174 SPECIAL CONDITIONS:

1 2 3 4 5 6

LOCATION 2 8 2 2 0 0 / FACILITY 1 8 2 8 / EMISSION POINT 0 0 3 2 1

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

c/o APR 92 GROUP

| | | | |
|---|---|---|---|
| 1 NAME OF OWNER/FIRM: Metco-Division of Perkin Elmer | 9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788 | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM): |
| 2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue | 11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard | | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue |
| 3 CITY - TOWN - VILLAGE: Westbury; 4 STATE: N.Y.; 5 ZIP: 11590 | 12 CITY - TOWN - VILLAGE: Nesconset; 13 STATE: N.Y.; 14 ZIP: 11767 | | 21 CITY - TOWN - VILLAGE: Westbury, New York; 22 ZIP: 11590 |
| 6 OWNER CLASSIFICATION: A ☐ COMMERCIAL C ☐ UTILITY F ☐ MUNICIPAL I ☐ RESIDENTIAL; B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER; E ☐ STATE H ☐ HOSPITAL | 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee; 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO.: 067049; 17 TELEPHONE: (516) 979-7788 | | 23 BUILDING NAME OR NUMBER: 1; 24 FLOOR NAME OR NUMBER: 1 |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac.; 8 TELEPHONE: (516) 334-1300 | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | | 25 START UP DATE: MO / YR; 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10 |
| | | | 27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION; 28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION |

| 29 EMISSION POINT ID. | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON (Winter / Spring / Summer / Fall) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 2 | 140 | 13 C | 34 C | 11 | 70 | 50.00 | 1975 | 1303 | 2.5 C | 231 C | 25 / 25 / 25 / 25 |

41 DESCRIBE PROCESS OR UNIT:
1 This unit provides ventilation for a spray booth used for
3 testing powders.
5
7
2
4
6
8

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 32 C | 43 98 C | 44 Metco Wet Collector, 4CW C | 45 6 C | 46 06/78 C | 47 20 C |
| 48 32 A | 49 12 A | 50 Impingement Plate A | 51 6 A | 52 06/78 A | 53 20 A |

J-FORM ATTACHED

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV. RATING | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS HOW DET | EMISSIONS PERMISSIBLE | % CONTROL EFFIC'CY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) $10^3$ | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Nickle | 55 07 44 0-0 2-0 C | 56 | 57 | 58 A C | 59 0.049 C | 60 1 C | 61 6 C | 62 .049 C | 63 95 C | 64 0.98 C | 65 0.049 C | 66 2.832 C | 67 1 C | 68 2.832 C |
| 69 Cobalt | 70 07 4 40 - 4 8 - 4 C | 71 | 72 | 73 B C | 74 0.0060 C | 75 1 C | 76 6 C | 77 .006 C | 78 95 C | 79 0.114 C | 80 0.0060 C | 81 3.29 C | 82 0 C | 83 3.29 C |
| 84 Molybdenum | 85 07 4 39 - 9 8 - 7 C | 86 | 87 | 88 C C | 89 0.043 C | 90 1 C | 91 6 C | 92 .043 C | 93 95 C | 94 0.86 C | 95 0.043 C | 96 2.485 C | 97 1 C | 98 2.485 C |
| 99 Titanium Dioxide | 100 13 4 63 - 6 7 - 7 C | 101 | 102 | 103 C C | 104 0.011 C | 105 1 C | 106 6 C | 107 .011 C | 108 95 C | 109 0.22 C | 110 0.011 C | 111 6.36 C | 112 0 C | 113 6.36 C |
| 114 Chromium | 115 07 4 40 - 4 7 - 3 C | 116 | 117 | 118 A C | 119 0.004 C | 120 1 C | 121 6 C | 122 .004 C | 123 95 C | 124 0.08 C | 125 0.004 C | 126 2.31 C | 127 0 C | 128 2.31 C |
| 129 Boron Nitride | 130 10043 - 11 - 5 C | 131 | 132 | 133 C C | 134 0.0005 C | 135 2 C | 136 6 C | 137 .5 C | 138 95 C | 139 [illegible] | 140 [illegible] | 141 2.9 C | 142 -1 C | 143 2.9 C |

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL % S | LIQUID FUEL TYPE | LIQUID FUEL THOUSANDS OF GALLONS/YR | LIQUID FUEL % S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF | APPLICABLE RULE 153 | APPLICABLE RULE 154 |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 212 | |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert Lee — DATE: 11-21-91

| 156 LOCATION CODE | 157 FACILITY ID. NO. | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 SIC NUMBER | 161 DATE APPL. RECEIVED | 162 DATE APPL. REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 2 8 2 2 0 0 | 1 8 2 8 | 6 2 2 5 | 1 3 4 3 5 6 9 | | / / | 02 / 14 / 92 | BLC CAP |

## PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| / / | / / | | $50/151 |

310C-311C-312C

173
1 ☑ INSPECTED BY 426 VSI — DATE 9/27/91
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O. DENIED — DATE — INITIALED

174 SPECIAL CONDITIONS:
1 AG-1 Compliance
2 3195
3
4
5
6
7
8

JUN 1 [illegible]

AGENCY USE ONLY

LOCATION 2 8 2 2 0 0 / FACILITY 1 8 2 8 / EMISSION POINT 0 0 0 3 2 N

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 NAME OF OWNER/FIRM | | | 9 NAME OF AUTHORIZED AGENT | | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) | | |
| Metco-Division of Perkin Elmer | | | Donnelly Engineering | | (516) 979-7788 | | | |
| 2 NUMBER AND STREET ADDRESS | | | 11 NUMBER AND STREET ADDRESS | | | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS) | | |
| 1101 Prospect Avenue | | | 55 Southern Boulevard | | | 1101 Prospect Avenue | | |
| 3 CITY - TOWN - VILLAGE | 4 STATE | 5 ZIP | 12 CITY - TOWN - VILLAGE | 13 STATE | 14 ZIP | 21 CITY - TOWN - VILLAGE | | 22 ZIP |
| Westbury | N.Y. | 11590 | Nesconset | N.Y. | 11767 | Westbury, New York | | 11590 |
| 6 OWNER CLASSIFICATION | | | 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO | 17 TELEPHONE | 23 BUILDING NAME OR NUMBER | 24 FLOOR NAME OR NUMBER | |
| A ☐ COMMERCIAL C ☐ UTILITY E ☐ STATE F ☐ MUNICIPAL H ☐ HOSPITAL I ☐ RESIDENTIAL | | | Robert J. Lee | 067049 | (516) 979-7788 | 1 | 1 | |
| B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER | | | | | | 25 START UP DATE MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED | |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE | 8 TELEPHONE | | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | | | | MPE-A10 | |
| Patrick Tighe<br>Superintendent of Fac. | (516) 334-1300 | | | | | 27 PERMIT TO CONSTRUCT<br>A ☐ NEW SOURCE<br>B ☐ MODIFICATION | 28 CERTIFICATE TO OPERATE<br>A ☐ NEW SOURCE C ☐ EXISTING SOURCE<br>B ☒ MODIFICATION | |

| 29 EMISSION POINT ID. | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 2 | 140 | 13 | 84 | 11 | 70 | 50.00 | 1975 | | 2.5 | 231 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT

1 CONTINUED

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 | 43 | 44 | 45 | 46 / | 47 |
| 48 | 49 | 50 CONTINUED | 51 | 52 / | 53 |

CALCULATIONS

CONTINUED

PAGE 2 of 2

J-FORM- 282200-1828-00032

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS ACTUAL | UNIT | HOURS PER DAY | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | 10⁴ | PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Tungsten Carbide | 55 1 2 0 7 0-1 2-1 | 56 | 57 | 58 B | 59 0.014 | 60 1 | 61 6 | 62 .014 | 63 95 | 64 0.28 | 65 0.014 | 66 8.09 | 67 0 | 68 8.09 |
| 69 Copper | 70 0 7 4 4 0-5 0-8 | 71 | 72 | 73 C | 74 0.004 | 75 1 | 76 6 | 77 .004 | 78 95 | 79 0.08 | 80 0.004 | 81 2.31 | 82 0 | 83 2.31 |
| 84 Chromium Oxide (CRIII) | 85 0 1 3 0 8-3 8-9 | 86 | 87 | 88 B | 89 0.009 | 90 1 | 91 6 | 92 .009 | 93 95 | 94 0.18 | 95 0.009 | 96 5.20 | 97 0 | 98 5.20 |
| 99 Iron | 100 07439-89-6 | 101 | 102 | 103 C | 104 0.005 | 105 1 | 106 6 | 107 .005 | 108 95 | 109 0.10 | 110 0.005 | 111 2.89 | 112 0 | 113 2.89 |
| 114 Aluminum Oxide | 115 0 1 3 4 4-2 8-1 | 116 | 117 | 118 C | 119 0.008 | 120 1 | 121 6 | 122 .008 | 123 95 | 124 0.16 | 125 0.008 | 126 4.62 | 127 0 | 128 4.62 |
| 129 Other Particulate | 130 N Y 0 7 5-0 0 0 | 131 | 132 | 133 B | 134 0.230 | 135 1 | 136 6 | 137 .23 | 138 95 | 139 4.6 | 140 0.230 | 141 1.329 | 142 2 | 143 1.329 |

| SOLID FUEL TYPE | TONS/YR | %S | LIQUID FUEL TYPE | THOUSANDS OF GALLONS/YR | %S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS.

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert Lee

DATE 11-25-91

| 156 LOCATION CODE | 157 FACILITY ID NO. | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 SIC NUMBER | 161 DATE APPL. RECEIVED | 162 DATE APPL. REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

**PERMIT TO CONSTRUCT**

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THE PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

**CERTIFICATE TO OPERATE**

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| / / | / / | | |

173
1. ☐ INSPECTED BY _____ DATE _____
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3. ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O DENIED _____ DATE _____ INITIALED

174 SPECIAL CONDITIONS:

1 | 2
3 | 4
5 | 6

LOCATION / FACILITY / EMISSION POINT: 2 8 2 2 0 0 1 / 1 2 2 8 0 0 0 3 2 I

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

c/o APE 92 Group

| 1. NAME OF OWNER/FIRM | 9. NAME OF AUTHORIZED AGENT | 10. TELEPHONE | 19. FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |

| 2. NUMBER AND STREET ADDRESS | 11. NUMBER AND STREET ADDRESS | 20. FACILITY LOCATION (NUMBER AND STREET ADDRESS) |
|---|---|---|
| 1101 Prospect Avenue | 55 Southern Boulevard | 1101 Prospect Avenue |

| 3. CITY - TOWN - VILLAGE | 4. STATE | 5. ZIP | 12. CITY - TOWN - VILLAGE | 13. STATE | 14. ZIP | 21. CITY - TOWN - VILLAGE | 22. ZIP |
|---|---|---|---|---|---|---|---|
| Westbury | N.Y. | 11590 | Nesconset | N.Y. | 11767 | Westbury, New York | 11590 |

| 6. OWNER CLASSIFICATION | 15. NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | 16. N.Y.S. P.E. OR ARCHITECT LICENSE NO. | 17. TELEPHONE | 23. BUILDING NAME OR NUMBER | 24. FLOOR NAME OR NUMBER |
|---|---|---|---|---|---|
| A ☐ COMMERCIAL C. ☐ UTILITY E ☐ STATE F ☐ MUNICIPAL H ☐ HOSPITAL I ☐ RESIDENTIAL B. ☒ INDUSTRIAL D. ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER | Robert J. Lee | 067049 | (516) 979-7788 | 1 | 1 |

| 7. NAME & TITLE OF OWNERS REPRESENTATIVE | 8. TELEPHONE | 18. SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | 25. START UP DATE MO / YR | 26. DRAWING NUMBERS OF PLANS SUBMITTED |
|---|---|---|---|---|
| Patrick Tighe Superintendent of Fac. | (516) 334-1300 | | 8 / | MPE-A10 |

27. PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION

28. CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION

| 29. EMISSION POINT ID. | 30. GROUND ELEVATION (FT) | 31. HEIGHT ABOVE STRUCTURES (FT) | 32. STACK HEIGHT (FT) | 33. INSIDE DIMENSIONS (IN) | 34. EXIT TEMP (°F) | 35. EXIT VELOCITY (FT/SEC) | 36. EXIT FLOW RATE (ACFM) | 37. SOURCE CODE | 38. HRS/DAY | 39. DAYS/YR | 40. % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 3 | 140 | 13 C | 34 C | 11 | 70 | 50.00 | 1975 | 1303 | 2.5 C | 231 C | 25 | 25 | 25 | 25 |

41. DESCRIBE PROCESS OR UNIT

1. This unit provides ventilation for a spray booth used for
3. testing powders.
5.
7.
4.
6.
8.

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE | |
|---|---|---|---|---|---|---|
| 42. 33 C | 43. 98 C | 44. Metco Wet Collector, 4CW C | 45. 6 C | 46. 6/78 C | 47. 20 C | J-FORM ATTACHED |
| 48. 33 | 49. 12 | 50. Impingement Plate | 51. 6 A | 52. 6 /78 | 53. 20 A | |

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV. RATING | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS HOW DET | EMISSIONS PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | IC | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54. Nickle | 55. 07 44 0 - 0 2 - 0 | 56. | 57. | 58. A | 59. 0.049 | 60. 1 | 61. 6 | 62. .049 | 63. 95 | 64. 0.98 | 65. 0.049 | 66. 2.832 | 67. 1 | 68. 2.832 |
| 69. Cobalt | 70. 07 4 40 - 4 8 - 4 | 71. | 72. | 73. B | 74. 0.0060 | 75. 1 | 76. 6 | 77. .006 | 78. 95 | 79. 0.114 | 80. 0.0060 | 81. 3.29 | 82. 0 | 83. 3.29 |
| 84. Molybdenum | 85. 07 4 39 - 9 8 - 7 | 86. | 87. | 88. C | 89. 0.043 | 90. 1 | 91. 6 | 92. .043 | 93. 95 | 94. 0.86 | 95. 0.043 | 96. 2.485 | 97. 1 | 98. 2.485 |
| 99. Titanium Dioxide | 100. 13 4 63 - 6 7 - 7 | 101. | 102. | 103. C | 104. 0.011 | 105. 1 | 106. 6 | 107. .011 | 108. 95 | 109. 0.22 | 110. 0.011 | 111. 6.36 | 112. 0 | 113. 6.36 |
| 114. Chromium | 115. 07 4 40 - 4 7 - 3 | 116. | 117. | 118. A | 119. 0.004 | 120. 1 | 121. 6 | 122. .004 | 123. 95 | 124. 0.08 | 125. 0.004 | 126. 2.31 | 127. 0 | 128. 2.31 |
| 129. Boron Nitride | 130. 100 43 - 11 - 5 | 131. | 132. | 133. C | 134. 0.005 | 135. 2 | 136. 6 | 137. .5 | 138. 95 | 139. 0.1 | 140. 0.005 | 141. 2.9 | 142. 1 | 143. 2.9 |

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | % S | LIQUID FUEL TYPE | LIQUID FUEL THOUSANDS OF GALLONS/YR | % S | GAS TYPE | GAS THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153. 212 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155. SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert Lee

DATE: 11-21-91

| 156. LOCATION CODE | 157. FACILITY ID. NO. | 158. U.T.M. (E) | 159. U.T.M. (N) | 160. SIC NUMBER | 161. DATE APPL. RECEIVED | 162. DATE APPL. REVIEWED | 163. REVIEWED BY: |
|---|---|---|---|---|---|---|---|
| 2822000 | L8280 | 622125 | 4535165 | | / / | 02/19/92 | BLG CAP |

## PERMIT TO CONSTRUCT

| 164. DATE ISSUED | 165. EXPIRATION DATE | 166. SIGNATURE OF APPROVAL | 167. FEE |
|---|---|---|---|
| / / | / / | | |

168.
1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

3172 3165 3121

## CERTIFICATE TO OPERATE

| 169. DATE ISSUED | 170. EXPIRATION DATE | 171. SIGNATURE OF APPROVAL | 172. FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | | 50/VSI |

310C-311C-312C

173.
1. ☑ INSPECTED BY 428 VSI DATE 9/7/91
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3. ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DEEMED ___ DATE ___ INITIALED

174. SPECIAL CONDITIONS:
1. AG-1 Compliance
2. 3195
3.
4.
5.
6.

LOCATION / FACILITY / EMISSION POINT: 2 8 2 2 0 0 / 1 8 2 8 / 0 0 3 3

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
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GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 NAME OF OWNER/FIRM | | | 9 NAME OF AUTHORIZED AGENT | | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) | | |
| Metco-Division of Perkin Elmer | | | Donnelly Engineering | | (516) 979-7788 | | | |
| 2 NUMBER AND STREET ADDRESS | | | 11 NUMBER AND STREET ADDRESS | | | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS) | | |
| 1101 Prospect Avenue | | | 55 Southern Boulevard | | | 1101 Prospect Avenue | | |
| 3 CITY - TOWN - VILLAGE | 4 STATE | 5 ZIP | 12 CITY - TOWN - VILLAGE | 13 STATE | 14 ZIP | 21 CITY - TOWN - VILLAGE | | 22 ZIP |
| Westbury | N.Y. | 11590 | Nesconset | N.Y. | 11767 | Westbury, New York | | 11590 |
| 6 OWNER CLASSIFICATION: A ☐ COMMERCIAL C ☐ UTILITY E ☐ STATE F ☐ MUNICIPAL H ☐ HOSPITAL I ☐ RESIDENTIAL B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER | | | 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | 16 N.Y.S P.E. OR ARCHITECT LICENSE NO | 17 TELEPHONE | 23 BUILDING NAME OR NUMBER | 24 FLOOR NAME OR NUMBER | |
| | | | Robert J. Lee | 067049 | (516) 979-7788 | 1 | 1 | |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE | | 8 TELEPHONE | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | | | 25 START UP DATE MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED | |
| Patrick Tighe<br>Superintendent of Fac. | | (516) 334-1300 | | | | | MPE-A10 | |
| | | | | | | 27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION | 28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION | |

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 3 | 140 | 13 | 34 | 11 | 70 | 50.00 | 1975 | | 2.5 | 231 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT

1 CONTINUED

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 | 43 | 44 | 45 | 46 / | 47 |
| 48 | 49 | 50 CONTINUED | 51 | 52 / | 53 |

CALCULATIONS

CONTINUED

PAGE 2 of 2

J-FORM 282200-1828-00033

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV. RATING | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS HOW OFTEN | EMISSIONS PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) 10* | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Tungsten Carbide | 55 1 2 0 7 0-1 2-1 | 56 | 57 | 58 B | 59 0.014 | 60 1 | 61 6 | 62 .014 | 63 95 | 64 0.28 | 65 0.014 | 66 8.09 | 67 0 | 68 8.09 |
| 69 Copper | 70 0 7 4 4 0-5 0 8 | 71 | 72 | 73 C* | 74 0.004 | 75 1 | 76 6 | 77 .004 | 78 95 | 79 0.08 | 80 0.004 | 81 2.31 | 82 0 | 83 2.31 |
| 84 Chromium Oxide (CRIII) | 85 0 1 3 0 8-3 8-9 | 86 | 87 | 88 B | 89 0.009 | 90 1 | 91 6 | 92 .009 | 93 95 | 94 0.18 | 95 0.009 | 96 5.20 | 97 0 | 98 5.2 |
| 99 Iron | 100 0 7 4 3 9-8 9-6 | 101 | 102 | 103 C | 104 0.005 | 105 1 | 106 6 | 107 .005 | 108 95 | 109 0.10 | 110 0.005 | 111 2.89 | 112 0 | 113 2.89 |
| 114 Aluminum Oxide | 115 0 1 3 4 4-2 8-1 | 116 | 117 | 118 C | 119 0.008 | 120 1 | 121 6 | 122 .008 | 123 95 | 124 0.16 | 125 0.008 | 126 4.62 | 127 0 | 128 4.62 |
| 129 Other Particulate | 130 N Y 0 7 5-0 0 0 | 131 | 132 | 133 B | 134 0.230 | 135 1 | 136 6 | 137 .23 | 138 95 | 139 4.6 | 140 0.230 | 141 1.329 | 142 2 | 143 1.329 |

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL % S | LIQUID FUEL TYPE | LIQUID FUEL THOUSANDS OF GALLONS/YR | LIQUID FUEL % S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 |

* completion of construction sign the statement listed below and forward to the appropriate field representative

I PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee — DATE: 11-25-91

| LOCATION CODE | 157 FACILITY ID. NO | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

**PERMIT TO CONSTRUCT**

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

**CERTIFICATE TO OPERATE**

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| / / | / / | | |

173
1 ☐ INSPECTED BY _____ DATE _____
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3 ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O DENIED _____ DATE _____ INITIALED

174 SPECIAL CONDITIONS:

1 2
3 4
5 6

USE ONLY

LOCATION 2 8 2 2 0 0 | FACILITY / EMISSION POINT 1 8 2 8 0 0 3 4

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 78-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

c/o APPL. 92 GROUP

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 NAME OF OWNER/FIRM | Metco-Division of Perkin Elmer | | 9 NAME OF AUTHORIZED AGENT | Donnelly Engineering | | 10 TELEPHONE | (516) 979-7788 |
| 2 NUMBER AND STREET ADDRESS | 1101 Prospect Avenue | | 11 NUMBER AND STREET ADDRESS | 55 Southern Boulevard | | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) | |
| 3 CITY - TOWN - VILLAGE | Westbury | 4 STATE N.Y. 5 ZIP 11590 | 12 CITY - TOWN - VILLAGE | Nesconset | 13 STATE N.Y. 14 ZIP 11767 | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS) | 1101 Prospect Avenue |
| | | | | | | 21 CITY - TOWN - VILLAGE | Westbury, New York 22 ZIP 11590 |
| | | | | | | 23 BUILDING NAME OR NUMBER | 1 |
| | | | | | | 24 FLOOR NAME OR NUMBER | 1 |
| 6 OWNER CLASSIFICATION | A ☐ COMMERCIAL B ☒ INDUSTRIAL C ☐ UTILITY D ☐ FEDERAL E ☐ STATE F ☐ MUNICIPAL G ☐ EDUC INST H ☐ HOSPITAL I ☐ RESIDENTIAL J ☐ OTHER | | 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | Robert J. Lee | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO. 067049 | 17 TELEPHONE | (516) 979-7788 |
| | | | | | | 25 START UP DATE | MO / YR |
| | | | | | | 26 DRAWING NUMBERS OF PLANS SUBMITTED | MPE-A10 |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE | Patrick Tighe Superintendent of Fac. | 8 TELEPHONE (516) 334-1300 | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | | | 27 PERMIT TO CONSTRUCT A ☐ NEW SOURCE B ☐ MODIFICATION | 28 CERTIFICATE TO OPERATE A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION |

| 29 EMISSION POINT ID. | 30 GROUND ELEVATION (FT.) | 31 HEIGHT ABOVE STRUCTURES (FT.) | 32 STACK HEIGHT (FT.) | 33 INSIDE DIMENSIONS (IN.) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 034 | 140 | 13 C | 34 C | 11 | 70 | 50.00 | 1975 | 1303 | 2.5 C | 231 C | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT

1 This unit provides ventilation for a spray booth used for
3 testing powders.

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42. 34C | 43. 98 C | 44. Metco Wet Collector, 4CW C | 45. 6 C | 46. 6/78 C | 47. 20 C |
| 48. 34A | 49. 12 A | 50. Impingement Plate A | 51. 6 A | 52. 6/78 A | 53. 20 A |

J-FORM ATTACHED

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV. RATING | EMISSIONS ACTUAL | UNIT | HOURS PER DAY | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | 10* | PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Nickle | 55 07 44 0-0 2-0 | 56 | 57 | 58 A | 59 0.049 | 60 1 | 61 6 | 62 .049 | 63 95 | 64 0.98 | 65 0.049 | 66 2.832 | 67 1 | 68 2.832 |
| 69 Cobalt | 70 07 4 40_4 8_4 | 71. | 72. | 73 B | 74 0.0060 | 75 1 | 76 6 | 77 .006 | 78 95 | 79 0.114 | 80 0.0060 | 81 3.29 | 82 0 | 83 3.29 |
| 84 Molybdenum | 85 07 4 39_9 8_7 | 86 | 87 | 88 C | 89 0.043 | 90 1 | 91 6 | 92 .043 | 93 95 | 94 0.86 | 95 0.043 | 96 2.485 | 97 1 | 98 2.485 |
| 99 Titanium Dioxide | 100 13 4 63_6 7_7 | 101. | 102 | 103 C | 104 0.011 | 105 1 | 106 6 | 107 .011 | 108 95 | 109 0.22 | 110 0.011 | 111 6.36 | 112 0 | 113 6.36 |
| 114 Chromium | 115 07 4 40_4 7_3 | 116. | 117 | 118 A | 119 0.004 | 120 1 | 121 6 | 122 .004 | 123 95 | 124 0.08 | 125 0.004 | 126 2.31 | 127 0 | 128 2.31 |
| 129 Boron Nitride | 130 10043-11-5 | 131 | 132 | 133 C | 134 .5 | 135 2 | 136 6 | 137 .5 | 138 95 | 139 | 140 | 141 2.9 | 142 -1 | 143 2.9 |

| SOLID FUEL TYPE | TONS/YR | %S | LIQUID FUEL TYPE | THOUSANDS OF GALLONS/YR | %S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 212 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS.

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee — DATE 11-25-91

| 156 LOCATION CODE | 157 FACILITY ID. NO. | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL. RECEIVED | 162 DATE APPL. REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 2 8 2 2 0 0 | 1 8 2 8 | 6 2 2 2 5 1 3 | 4 3 5 6 4 | | / / | 02 / 20 / 92 | BLCAP |

## PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | [signature] | 650/V61 |

310C-311C-312C

173
1. ☑ INSPECTED BY 425 V61 DATE 9/7/91
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3. ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DENIED ____ DATE ____ INITIALED

174 SPECIAL CONDITIONS:
1. AG-1 Compliance
2. 3195

USE ONLY

LOCATION / FACILITY / EMISSION POINT: 2 8 2 2 0 0 1 / 8 2 8 1 0 0 0 3 4 B

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 78-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

| 1 NAME OF OWNER/FIRM | 9 NAME OF AUTHORIZED AGENT | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |
| **2 NUMBER AND STREET ADDRESS** | **11 NUMBER AND STREET ADDRESS** | | **20 FACILITY LOCATION (NUMBER AND STREET ADDRESS)** |
| 1101 Prospect Avenue | 55 Southern Boulevard | | 1101 Prospect Avenue |

| 3 CITY - TOWN - VILLAGE | 4 STATE | 5 ZIP | 12 CITY - TOWN - VILLAGE | 13 STATE | 14 ZIP | 21 CITY - TOWN - VILLAGE | 22 ZIP |
|---|---|---|---|---|---|---|---|
| Westbury | N.Y. | 11590 | Nesconset | N.Y. | 11767 | Westbury, New York | 11590 |

| 23 BUILDING NAME OR NUMBER | 24 FLOOR NAME OR NUMBER |
|---|---|
| 1 | 1 |

6 OWNER CLASSIFICATION: A ☐ COMMERCIAL B ☒ INDUSTRIAL C ☐ UTILITY D ☐ FEDERAL E ☐ STATE F ☐ MUNICIPAL G ☐ EDUC INST H ☐ HOSPITAL I ☐ RESIDENTIAL J ☐ OTHER

| 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO | 17 TELEPHONE |
|---|---|---|
| Robert J. Lee | 067049 | (516) 979-7788 |

| 25 START UP DATE (MO / YR) | 26 DRAWING NUMBERS OF PLANS SUBMITTED |
|---|---|
| / | MPE-A10 |

| 7 NAME & TITLE OF OWNERS REPRESENTATIVE | 8 TELEPHONE | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT |
|---|---|---|
| Patrick Tighe<br>Superintendent of Fac. | (516) 334-1300 | |

27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION

28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE B ☒ MODIFICATION C ☐ EXISTING SOURCE

| 29 EMISSION POINT ID. | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 4 | 140 | 13 | 34 | 11 | 70 | 50.00 | 1975 | | 2.5 | 231 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT

1 CONTINUED

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 | 43 | 44 | 45 | 46 / | 47 |
| 48 | 49 | 50 CONTINUED | 51 | 52 / | 53 |

CALCULATIONS

CONTINUED

PAGE 2 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS HOURS/YR | EMISSIONS PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) 10³ | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tungsten Carbide | 12070-12-1 | | | B | 0.014 | 1 | 6 | .014 | 95 | 0.28 | 0.014 | 8.09 | 0 | 8.09 |
| Copper | 07440-50-8 | | | CA | 0.004 | 1 | 6 | .004 | 95 | 0.08 | 0.004 | 2.31 | 0 | 2.31 |
| Chromium Oxide (CRIII) | 01308-38-9 | | | B | 0.009 | 1 | 6 | .009 | 95 | 0.18 | 0.009 | 5.20 | 0 | 5.20 |
| Iron | 07439-89-6 | | | C | 0.005 | 1 | 6 | .005 | 95 | 0.10 | 0.005 | 2.89 | 0 | 2.89 |
| Aluminum Oxide | 01344-28-1 | | | C | 0.008 | 1 | 6 | .008 | 95 | 0.16 | 0.008 | 4.62 | 0 | 4.62 |
| Other Particulate | NY075-00-0 | | | B | 0.230 | 1 | 6 | .230 | 95 | 4.6 | 0.230 | 1.329 | 2 | 1.329 |

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL %S | LIQUID FUEL TYPE | LIQUID FUEL THOUSANDS OF GALLONS/YR | LIQUID FUEL %S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS.

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert Lee

DATE: 11-25-91

| 156 LOCATION CODE | 157 FACILITY ID. NO | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 SIC NUMBER | 161 DATE APPL. RECEIVED | 162 DATE APPL. REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

## PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| / / | / / | | |

173
1. ☐ INSPECTED BY _____ DATE _____
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3. ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DENIED _____ DATE _____ INITIALED

174 SPECIAL CONDITIONS:

1. 2. 3. 4. 5. 6. 7. 8.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
PINK - FIELD REP
YELLOW - APPLICANT

ID LOCATION FACILITY EMISSION POINT
2 28 2 2 0 0 / 0 2 8 1 0 0 0 5 / 0 1

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE c/o APR. 92 GROUP

SECTION A

1 NAME OF OWNER/FIRM: Metco-Division of Perkin Elmer
2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue
3 CITY - TOWN - VILLAGE: Westbury | 4 STATE: N.Y. | 5 ZIP: 11590
6 OWNER CLASSIFICATION: A ☐ COMMERCIAL C ☐ UTILITY E ☐ STATE H ☐ HOSPITAL; B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER; F ☐ MUNICIPAL I ☐ RESIDENTIAL
7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac. | 8 TELEPHONE: (516) 334-1300

9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788
11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard
12 CITY - TOWN - VILLAGE: Nesconset | 13 STATE: N.Y. | 14 ZIP: 11767
15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee | 16 NYS P.E. OR ARCHITECT LICENSE NO.: 067049 | 17 TELEPHONE: (516) 979-7788
18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT

19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM)
20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue
21 CITY - TOWN - VILLAGE: Westbury, N.Y. | 22 ZIP: 11590
23 BLDG. NUMBER: 1 | NAME OR NUMBER: 1
25 START UP DATE: ___/___/___ YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10
27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE; B ☐ MODIFICATION
28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE; B ☒ MODIFICATION

SECTION B

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 035 | 140 | 13 C | 34 C | 11 | 70 | 50.00 | 1975 | 3-03-503 | 2.5 C | 231 C | 25 | 25 | 25 | 25 |

SECTION C

41 DESCRIBE PROCESS OR UNIT:
1 This unit provides ventilation for a spray booth used for testing powders.

SECTION D

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 35 C | 98 C | Metco Wet Collector, 4CW C | 6 C | 06/78 C | 20 |
| 35 | 12 A | Impingement Plate 4 | 6 A | 06/78 A | 20 A |

J-FORM ATTACHED

SECTION E

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ACTUAL | UNIT | HOURLY EMISSIONS | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) TON* | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nickle | 0 7 4 4 0-0 2 0 | | A | 0.049 | 1 | 6 | .049 | 95 | 0.98 | 0.049 | 2.832 | 1 | 2.832 |
| Cobalt | 0 7 4 4 0-4 8-4 | | B | 0.0060 | 1 | 6 | .006 | 95 | 0.114 | 0.0060 | 3.29 | 0 | 3.29 |
| Molybdenum | 0 7 4 3 9-9 8-7 | | C | 0.043 | 1 | 6 | .043 | 95 | 0.86 | 0.043 | 2.485 | 1 | 2.485 |
| Titanium Dioxide | 1 3 4 6 8-6 7-7 | | C | 0.011 | 1 | 6 | .011 | 95 | 0.22 | 0.011 | 6.36 | 0 | 636 |
| Chromium | 0 7 4 4 0-4 7-3 | | 4 | 0.004 | 1 | 6 | .004 | 95 | 0.08 | 0.004 | 2.31 | 0 | 2.31 |
| Boron Nitride | 10043-11-5 | | C | 0.5 | 2 | 6 | .5 | 95 | | | 2.9 | 1 | 2.9 |

SECTION G

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | % S | OIL TYPE | OIL THOUSANDS OF GALLONS/YR | % S | GAS TYPE | GAS THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 212 | |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative.
THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS.
159 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee | DATE: 11-21-91

AGENCY USE ONLY

| 156 LOCATION CODE | 157 FACILITY ID NO. | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 28 2 2 0 0 | 1 0 2 8 | 6 2 2 2 5 | 1 3 1 4 3 | 5 6 9 4 | / / | 02/26/92 | BLG |

PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

RECOMMENDED ACTION RE: C.O.

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | / / | | 150/161 |

310C-311C-312C

173
1 ☑ INSPECTED BY 428 VSI DATE 9/7/91
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O DENIED DATE INITIALED

174 SPECIAL CONDITIONS:
1 AG-1 COMPLIANCE
2 3195

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
PINK - FIELD REP
YELLOW - APPLICANT

ID LOCATION FACILITY EMISSION POINT
4 | 2 4 2 2 0 0 | 1 5 | 2 8 0 0 0 3 5 | 1

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

SECTION A

| | |
|---|---|
| 1 NAME OF OWNER/FIRM | Metco-Division of Perkin Elmer |
| 2 NUMBER AND STREET ADDRESS | 1101 Prospect Avenue |
| 3 CITY-TOWN-VILLAGE | Westbury |
| 4 STATE | NY |
| 5 ZIP | 11590 |
| 6 OWNER CLASSIFICATION | A ☐ COMMERCIAL B ☒ INDUSTRIAL C ☐ UTILITY D ☐ FEDERAL E ☐ STATE F ☐ MUNICIPAL G ☐ EDUC INST H ☐ HOSPITAL I ☐ RESIDENTIAL J ☐ OTHER |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE | Patrick Tighe Superintendent of Fac. |
| 8 TELEPHONE | (516) 334-1300 |
| 9 NAME OF AUTHORIZED AGENT | Donnelly Engineering |
| 10 TELEPHONE | (516) 979-7788 |
| 11 NUMBER AND STREET ADDRESS | 55 Southern Boulevard |
| 12 CITY-TOWN-VILLAGE | Nesconset |
| 13 STATE | NY |
| 14 ZIP | 11767 |
| 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | Robert J. Lee |
| 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO. | 067049 |
| 17 TELEPHONE | 979-7788 |
| 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | |
| 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) | |
| 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS) | 1101 Prospect Avenue |
| 21 CITY-TOWN-VILLAGE | Westbury, NY |
| 22 ZIP | 11590 |
| 23 BUILDING NAME OR NUMBER | 1 |
| 24 FLOOR NAME OR NUMBER | 1 |
| 25 START UP DATE (MO / YR) | / |
| 26 DRAWING NUMBERS OF PLANS SUBMITTED | MPE-A10 |
| 27 PERMIT TO CONSTRUCT | A ☐ NEW SOURCE B ☐ MODIFICATION |
| 28 CERTIFICATE TO OPERATE | A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION |

SECTION B

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 5 | 140 | 13 | 34 | 11 | 70 | 50.00 | 1975 | 2.5 | 231 | 25 | 25 | 25 | 25 |

SECTION C

| 41 DESCRIBE PROCESS OR UNIT | 1 | 2 |
|---|---|---|
| | CONTINUED | |
| | 3 | 4 |
| | 5 | 6 |
| | 7 | 8 |

SECTION D

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 | 43 | 44 | 45 | 46 / | 47 |
| 48 | 49 | 50 CONTINUED | 51 | 52 / | 53 |

SECTION E

CALCULATIONS

CONTINUED

PAGE 2 of 2

SECTION F

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS CALC METHOD | ACTUAL | UNIT | HOURS/DAY | DAYS/YEAR | EMISSIONS | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) 10³ | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Tungsten Carbide | 55 1 2 0 7 0-1 2-1 | 56 | 57 | B | 0.014 | 1 | 6 | .014 | 95 | 0.28 | 0.014 | 8.09 | 0 | 8.09 |
| 69 Copper | 70 0 7 4 4 0-5 0-8 | 71 | 72 | C | 0.004 | 1 | 6 | .004 | 95 | 0.08 | 0.004 | 2.31 | 0 | 2.31 |
| 84 Chromium Oxide (CRIII) | 85 0 1 3 0 8-3 8-9 | 86 | 87 | B | 0.009 | 1 | 6 | .009 | 95 | 0.18 | 0.009 | 5.20 | 0 | 5.20 |
| 99 Iron | 100 07439-89-6 | 101 | 102 | C | 0.005 | 1 | 6 | .005 | 95 | 0.10 | 0.005 | 2.89 | 0 | 2.89 |
| 114 Aluminum Oxide | 115 0 1 3 4 4-2 8-1 | 116 | 117 | C | 0.008 | 1 | 6 | .008 | 95 | 0.16 | 0.008 | 4.62 | 0 | 4.62 |
| 129 Other Particulate | 130 N Y 0 7 5-0 0-0 | 131 | 132 | B | 0.230 | 1 | 6 | .23 | 95 | 4.6 | 0.230 | 1.329 | 2 | 1.329 |

SECTION G

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL %S | OIL TYPE | OIL THOUSANDS OF GALLONS/YR | OIL %S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee — DATE: 11-25-91

AGENCY USE ONLY

| 156 LOCATION CODE | 157 FACILITY ID NO. | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

RECOMMENDED ACTION RE: C.O.

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| / / | / / | | |

173
1 ☐ INSPECTED BY _____ DATE _____
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O. DENIED _____ DATE _____ INITIALED

174 SPECIAL CONDITIONS:

| | |
|---|---|
| 1 | 2 |
| 3 | 4 |
| 5 | 6 |
| 7 | 8 |

AGENCY USE ONLY

AP LOCATION FACILITY EMISSION POINT
2 8 2 2 0 0 / 1 8 2 8 0 0 0 3 M 1

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
PINK - FIELD REP
YELLOW - APPLICANT

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

c/o ADR 92 Group

SECTION A

| | |
|---|---|
| 1 NAME OF OWNER/FIRM | Metco-Division of Perkin Elmer |
| 9 NAME OF AUTHORIZED AGENT | Donnelly Engineering |
| 10 TELEPHONE | (516) 979-7788 |
| 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) | |
| 11 | 55 Southern Boulevard |
| 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS) | 1101 Prospect Avenue |
| 2 | 1101 Prospect Avenue |
| 21 CITY - TOWN - VILLAGE | Westbury, NY |
| 22 ZIP | 11590 |
| 3 CITY - TOWN - VILLAGE | Westbury |
| 4 STATE | NY |
| 5 ZIP | 11590 |
| 12 CITY - TOWN - VILLAGE | Nesconset |
| 13 STATE | NY |
| 14 ZIP | 11767 |
| 23 BUILDING NAME OR NUMBER | 1 |
| 24 FLOOR NAME OR NUMBER | 1 |
| 6 OWNER CLASSIFICATION | A ☐ COMMERCIAL C ☐ UTILITY E ☐ STATE F ☐ MUNICIPAL H ☐ HOSPITAL I ☐ RESIDENTIAL B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER |
| 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | Robert J. Lee |
| 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO | 067049 |
| 17 TELEPHONE | (516) 979-7788 |
| 25 START UP DATE | NO / YR |
| 26 DRAWING NUMBERS OF PLANS SUBMITTED | MPE-A10 |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE | Patrick Tighe Superintendent of Fac. |
| 8 TELEPHONE | (516) 334-1300 |
| 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | |
| 27 PERMIT TO CONSTRUCT | A ☐ NEW SOURCE B ☐ MODIFICATION |
| 28 CERTIFICATE TO OPERATE | A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION |

SECTION B

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 8 | 140 | 19 C | 35 C | 11 | 70 | 50.00 | 1975 | 2.5 C | 231 C | 25 | 25 | 25 | 25 |

SECTION C

41 DESCRIBE PROCESS OR UNIT

This unit provides ventilation for a spray booth used for testing powders.

SECTION D

| 42 EMISSION CONTROL EQUIPMENT I.D. | 43 CONTROL TYPE | 44 MANUFACTURER'S NAME AND MODEL NUMBER | 45 DISPOSAL METHOD | 46 DATE INSTALLED MONTH / YEAR | 47 USEFUL LIFE |
|---|---|---|---|---|---|
| 38 C | 98 C | Metco Wet Collector, 4CW C | 6 C | 4/91 C | 20 C |
| 48 38A | 49 A 12 | 50 Impingement Plate A | 51 6 | 52 4/91 A | 53 20 A |

J-FORM ATTACHED

SECTION E

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

SECTION F

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV. RATING | EMISSIONS ACTUAL | UNIT | HOURS/YR | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | TPY | PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 94 Nickle | 55 0 7 4 4 0-0 2-0 C | 56 | 57 | 58 A C | 59 0.049 C | 60 1 | 61 6 | 62 .049 C | 63 95 C | 64 0.98 C | 65 0.049 C | 66 2.832 C | 67 1 C | 68 2.832 C |
| 69 Cobalt | 70 0 7 4 4 0-4 8-4 C | 71 | 72 | 73 BC | 74 0.0060 | 75 1 | 76 6 | 77 .006 C | 78 95 C | 79 0.114 C | 80 0.0060 C | 81 3.29 C | 82 0 C | 83 3.29 C |
| 84 Molybdenum | 85 0 7 4 3 9-9 8-7 C | 86 | 87 | 88 CC | 89 0.043 C | 90 1 | 91 6 | 92 .043 C | 93 95 C | 94 0.86 C | 95 0.043 C | 96 2.485 a | 97 1 C | 98 2.485 C |
| 99 Titanium Dioxide | 100 1 3 4 6 3-6 7-7 C | 101 | 102 | 103 CC | 104 0.011 C | 105 1 | 106 6 | 107 .011 C | 108 95 C | 109 0.22 C | 110 0.011 C | 111 6.36 C | 112 0 C | 113 6.36 C |
| 114 Chromium | 115 0 7 4 4 0-4 7-3 C | 116 | 117 | 118 A C | 119 0.004 C | 120 1 | 121 6 | 122 .004 C | 123 95 C | 124 0.08 C | 125 0.004 C | 126 2.31 C | 127 0 C | 128 2.31 C |
| 129 Boron Nitride | 130 10043-11-5 C | 131 | 132 | 133 C C | 134 .5 C 0.0005 | 135 2 | 136 6 | 137 .5 C | 138 95 C | 139 C OMIT | 140 C 0.0005 | 141 2.9 C | 142 -1 C | 143 2.9 C |

SECTION G

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL % S | OIL TYPE | OIL THOUSANDS OF GALLONS/YR | OIL % S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 212 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative.

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee — DATE: 11-2-91

AGENCY USE ONLY

| 156 LOCATION CODE | 157 FACILITY ID NO. | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 SIC NUMBER | 161 DATE APPL. RECEIVED | 162 DATE APPL. REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 2 8 2 2 0 0 | 1 8 2 8 | 6 2 2 2 5 1 | 3 4 3 5 6 9 | | | | |

PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| | | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

RECOMMENDED ACTION RE: C.O.

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | [signature] | 50/1151 |

310-311C-312C

173
1 ☑ INSPECTED BY 426 VSI — DATE 9/7/91
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O. DENIED — DATE — INITIALED

174 SPECIAL CONDITIONS:
1 AG-1 COMPLIANCE
2 3195

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
PINK - FIELD REP.
YELLOW - APPLICANT

OP | LOCATION | FACILITY | EMISSION POINT
2 8 2 2 0 0 / 3 2 8 / 0 0 0 3 8

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

**SECTION A**

1 NAME OF OWNER/FIRM: Metco-Division of Perkin Elmer
2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue
3 CITY - TOWN - VILLAGE: Westbury | 4 STATE: NY | 5 ZIP: 11590
6 OWNER CLASSIFICATION: A ☐ COMMERCIAL C ☐ UTILITY E ☐ STATE F ☐ MUNICIPAL H ☐ HOSPITAL I ☐ RESIDENTIAL B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER
7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac. | 8 TELEPHONE: (516) 334-1300

9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788
11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard
12 CITY - TOWN - VILLAGE: Nesconset | 13 STATE: NY | 14 ZIP: 11767
15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO: 067049 | 17 TELEPHONE: (516) 979-7788
18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT

19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM):
20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue
21 CITY - TOWN - VILLAGE: Westbury, NY | 22 ZIP: 11590
23 BUILDING NAME OR NUMBER: 1 | 24 FLOOR NAME OR NUMBER: 1
25 START UP DATE: MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10
27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION
28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION

**SECTION B**

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 8 | 140 | 19 | 35 | 11 | 70 | 50.00 | 1975 | 2.5 | 231 | 25 | 25 | 25 | 25 |

**SECTION C**

41 DESCRIBE PROCESS OR UNIT: CONTINUED

**SECTION D**

| EMISSION CONTROL EQUIPMENT I.D | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| | | | | / | |
| | | CONTINUED | | / | |

**SECTION E**

CALCULATIONS

CONTINUED

PAGE 2 of 2

J-FORM-282200-1828-00038

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMIS. CALC. METHOD | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS HOW OFT | EMISSIONS PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) 10* | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tungsten Carbide | 1 2 0 7 6-1 2-1 | | | B | 0.014 | 1 | 6 | .014 | 95 | 0.28 | 0.014 | 8.09 | 0 | 8.09 |
| Copper | 0 7 4 4 0-5 0-8 | | | C | 0.004 | 1 | 6 | .004 | 95 | 0.08 | 0.004 | 2.31 | 0 | 2.31 |
| Chromium Oxide (CRIII) | 0 1 3 0 8-3 8-9 | | | B | 0.009 | 1 | 6 | .009 | 95 | 0.18 | 0.009 | 5.20 | 0 | 5.2 |
| Iron | 07439-89-6 | | | C | 0.005 | 1 | 6 | .005 | 95 | 0.10 | 0.005 | 2.89 | 0 | 2.89 |
| Aluminum Oxide | 0 1 3 4 4-2 8-1 | | | C | 0.008 | 1 | 6 | .008 | 95 | 0.16 | 0.008 | 4.62 | 0 | 4.62 |
| Other Particulate | N Y 0 7 5-0 0-0 | | | B | 0.230 | 1 | 6 | .23 | 95 | 4.6 | 0.230 | 1.329 | 2 | 1.329 |

**SECTION G**

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL %S | OIL TYPE | OIL THOUSANDS OF GALLONS/YR | OIL %S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| APPLICABLE RULE | APPLICABLE RULE |
|---|---|
| | |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee | DATE: 11-2-94

**AGENCY USE ONLY**

156 LOCATION CODE | 157 FACILITY ID NO | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY

**PERMIT TO CONSTRUCT**

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

**RECOMMENDED ACTION RE: C.O.**

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| / / | / / | | |

173
1 ☐ INSPECTED BY _____ DATE _____
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O. DENIED _____ DATE _____ INITIALED

174 SPECIAL CONDITIONS:

1 | 2
3 | 4
5 | 6
7 | 8

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
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GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
PINK - FIELD REP.
YELLOW - APPLICANT

P LOCATION 2 8 2 2 0 0 | FACILITY 1 8 2 8 | EMISSION POINT 0 3 9 | I

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-15-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

% APR 92 GROUP

SECTION A

| 1 NAME OF OWNER/FIRM | 9 NAME OF AUTHORIZED AGENT | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |
| 2 NUMBER AND STREET ADDRESS | 11 NUMBER AND STREET ADDRESS | | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS) |
| 1101 Prospect Avenue | 55 Southern Boulevard | | 1101 Prospect Avenue |
| 3 CITY - TOWN - VILLAGE / 4 STATE / 5 ZIP | 12 CITY - TOWN - VILLAGE / 13 STATE / 14 ZIP | | 21 CITY - TOWN - VILLAGE / 22 ZIP |
| Westbury / NY / 11590 | Nesconset / NY / 11767 | | Westbury, NY / 11590 |
| 6 OWNER CLASSIFICATION: A ☐ COMMERCIAL B ☒ INDUSTRIAL C ☐ UTILITY D ☐ FEDERAL E ☐ STATE F ☐ MUNICIPAL G ☐ EDUC INST H ☐ HOSPITAL I ☐ RESIDENTIAL J ☐ OTHER | 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION / 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO / 17 TELEPHONE | | 23 BUILDING NAME OR NUMBER: 1 / 24 FLOOR NAME OR NUMBER: 1 |
| | Robert J. Lee / 067049 / (516) 979-7788 | | 25 START UP DATE MO / YR / 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10 |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac. / 8 TELEPHONE (516) 334-1300 | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | | 27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION / 28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION |

SECTION B

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 3 9 | 140 | 19 C | 35 C | 11 | 70 | 50.00 | 1975 | 2.0 | 231 | 25 | 25 | 25 | 25 |

SECTION C

41 DESCRIBE PROCESS OR UNIT

1 This unit provides ventilation for a spray booth used for 3 testing powders. 4 6 7 8

SECTION D

| EMISSION CONTROL EQUIPMENT I.D | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 39 C | 43 98 C | 44 Metco Wet Collector, 4CW C | 45 6 C | 46 04/91 C | 47 20 C |
| 48 39 A | 49 12 A | 50 Impingement Plate A | 51 6 A | 52 04/91 A | 53 20 A |

SECTION E

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

SECTION F

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS: ACTUAL | UNIT | HOURLY RATE | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR): ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR): ACTUAL | TPY | PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Nickle | 55 0 7 4 4 0-0 2-0 C | 56 | 57 | 59 0.049 C | 60 1 | 61 6 | 62 .049 C | 63 95 C | 64 0.98 | 65 0.049 C | 66 2.832 C | 67 1 C | 68 2.832 C |
| 69 Cobalt | 70 0 7 4 4 0-4 8-4 C | 71 | 72 B | 74 0.0060 C | 75 1 | 76 6 | 77 .006 C | 78 95 C | 79 0.114 C | 80 0.0060 C | 81 3.29 C | 82 0 C | 83 3.29 C |
| 84 Molybdenum | 85 0 7 4 3 9-9 8-7 C | 86 | 87 C | 89 0.043 C | 90 1 | 91 6 | 92 .043 C | 93 95 C | 94 0.86 C | 95 0.043 C | 96 2.485 C | 97 1 C | 98 2.485 C |
| 99 Titanium Dioxide | 100 1 3 4 6 3-6 7-7 C | 101 | 102 C | 103 0.011 C | 104 C | 105 1 | 106 6 | 107 .011 C | 108 95 C | 109 0.22 C | 110 0.011 C | 111 6.36 C | 112 0 C | 113 6.36 C |
| 114 Chromium | 115 0 7 4 4 0-4 7-3 C | 116 | 117 A | 118 0.004 C | 119 C | 120 1 | 121 6 | 122 .004 C | 123 95 C | 124 0.08 C | 125 0.004 C | 126 2.31 C | 127 0 C | 128 2.31 C |
| 129 Boron Nitride | 130 10043-11-5 C | 131 | 132 C | 134 .5 C | 135 2 C | 136 6 | 137 .5 C | 138 95 C | 139 NSPS C | 140 NSPS C | 141 2.9 C | 142 -1 C | 143 2.9 C |

SECTION G

| SOLID FUEL: TYPE 144 | TONS/YR 145 | % $ 146 | OIL: TYPE 147 | THOUSANDS OF GALLONS/YR 148 | % $ 149 | GAS: TYPE 150 | THOUSANDS OF CF/YR 151 | BTU/CF 152 | APPLICABLE RULE 153: 212 | APPLICABLE RULE 154 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee — DATE: 11-21-91

AGENCY USE ONLY

| 156 LOCATION CODE | 157 FACILITY ID NO. | 158 UTM (E) | 159 UTM (N) | 160 SIC NUMBER | 161 DATE APPL. RECEIVED | 162 DATE APPL. REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 2 8 2 2 0 0 | 1 8 2 8 | 6 2 2 2 5 1 | 3 4 3 5 6 9 | | / / | 01 / 01 / 92 | BJCM |

PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

$150 — $150

RECOMMENDED ACTION RE:

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | Rhodora M. Magsino | $50 |

310-311C - 312C

173
1 ☑ INSPECTED BY 4/28 VSI — DATE 9/7/91
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3 ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O DENIED — DATE — INITIALED

174 SPECIAL CONDITIONS:

1 AG-1 Compliance — 2 3195

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
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GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
PINK - FIELD REP
YELLOW - APPLICANT

ID LOCATION FACILITY EMISSION POINT
2 92200 18280 00039

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

SECTION A

1 NAME OF OWNER/FIRM: Metco-Division of Perkin Elmer
2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue
3 CITY - TOWN - VILLAGE: Westbury | 4 STATE: NY | 5 ZIP: 11590
6 OWNER CLASSIFICATION: A ☐ COMMERCIAL B ☒ INDUSTRIAL C ☐ UTILITY D ☐ FEDERAL E ☐ STATE F ☐ MUNICIPAL G ☐ EDUC INST H ☐ HOSPITAL I ☐ RESIDENTIAL J ☐ OTHER
7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac. | 8 TELEPHONE: (516) 334-1300

9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788
11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard
12 CITY - TOWN - VILLAGE: Nesconset | 13 STATE: NY | 14 ZIP: 11767
15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO.: 067049 | 17 TELEPHONE: (516) 979-7788
18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT

19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM)
20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue
21 CITY - TOWN - VILLAGE: Westbury, NY | 22 ZIP: 11590
23 BUILDING NAME OR NUMBER: 1 | 24 FLOOR NAME OR NUMBER: 1
25 START UP DATE: MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10
27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION
28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION

SEC. B

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 OPERATING CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 039 | 140 | 19 | 35 | 11 | 70 | 50.00 | 1975 | | 2.5 | 231 | 25 | 25 | 25 | 25 |

SEC. C

41 DESCRIBE PROCESS OR UNIT:
1. This unit provides ventilation for a spray Booth used for
3. testing powders.
4.
5.
6.
7.
8.

SEC. D

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 | 43 98 | 44 Metco Wet Collector, 4CW | 45 6 | 46 / | 47 20 |
| 48 | 49 | 50 | 51 | 52 / | 53 |

SECTION E

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 2 of 2

J-FORM 282200-1828-00039

SEC. F

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS: ACTUAL | UNIT | HOURLY QTY | POTENTIAL | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR): ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR): ACTUAL | 10* | ALLOWABLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Tungsten Carbide | 55 20770-12-1 | 56 | 57 S | 59 0.014 | 60 1 | 61 6 | 62 .084 | 63 95 | 64 0.28 | 65 0.014 | 66 8.09 | 67 0 | 68 8.09 |
| 69 Copper | 70 07440-50-8 | 71 | 72 C | 74 0.004 | 75 1 | 76 6 | 77 .024 | 78 95 | 79 0.08 | 80 0.004 | 81 2.31 | 82 0 | 83 2.31 |
| 84 Chromium Oxide (CRIII) | 85 01308-38-9 | 86 | 87 B | 89 0.009 | 90 1 | 91 6 | 92 .054 | 93 95 | 94 0.18 | 95 0.009 | 96 5.20 | 97 0 | 98 5.20 |
| 99 Iron | 100 07439-89-6 | 101 | 102 C | 104 0.005 | 105 1 | 106 6 | 107 .030 | 108 95 | 109 0.10 | 110 0.005 | 111 2.89 | 112 0 | 113 2.89 |
| 114 Aluminum Oxide | 115 01344-28-1 | 116 | 117 C | 119 0.008 | 120 1 | 121 6 | 122 .048 | 123 95 | 124 0.16 | 125 0.008 | 126 4.62 | 127 0 | 128 4.62 |
| 129 Other Particulate | 130 NY075-00-0 | 131 | 132 B | 134 0.230 | 135 1 | 136 6 | 137 1.38 | 138 95 | 139 4.6 | 140 0.230 | 141 1.329 | 142 2 | 143 1.329 |

SEC. G

| SOLID FUEL TYPE | TONS/YR | %S | OIL TYPE | THOUSANDS OF GALLONS/YR | %S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee | DATE: 11-25-91

AGENCY USE ONLY

156 LOCATION CODE | 157 FACILITY ID NO. | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED / / | 162 DATE APPL REVIEWED / / | 163 REVIEWED BY:

PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

RECOMMENDED ACTION RE: C.O.

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| / / | / / | | |

173
1 ☐ INSPECTED BY _____ DATE _____
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O. DENIED _____ DATE _____ INITIALED

174 SPECIAL CONDITIONS:
1
2
3
4
5
6
7
8

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
PINK - FIELD REP
YELLOW - APPLICANT

ID LOCATION FACILITY EMISSION POINT
C 2 8 2 2 0 0 1 8 2 8 0 0 0 4 0 1

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE c/o APPL. 92 GROUP

**SECTION A**

1 NAME OF OWNER/FIRM: Metco-Division of Perkin Elmer
2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue
3 CITY-TOWN-VILLAGE: Westbury | 4 STATE: NY | 5 ZIP: 11590
6 OWNER CLASSIFICATION: A ☐ COMMERCIAL C ☐ UTILITY F ☐ MUNICIPAL I ☐ RESIDENTIAL; B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER; E ☐ STATE H ☐ HOSPITAL
7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac. | 8 TELEPHONE: (516) 334-1300
9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788
11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard
12 CITY-TOWN-VILLAGE: Nesconset | 13 STATE: NY | 14 ZIP: 11767
15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO.: 067049 | 17 TELEPHONE: (516) 979-7788
18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT
19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM)
20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue
21 CITY-TOWN-VILLAGE: Westbury, NY | 22 ZIP: 11590
23 BUILDING NAME OR NUMBER: 1 | 24 FLOOR NAME OR NUMBER: 1
25 START UP DATE: MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10
27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION
28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION

**SECTION B**

| 29 EMISSION POINT ID. | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 [illegible] | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON (Winter / Spring / Summer / Fall) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 4 0 | 140 | 19 C | 35 C | 11 | 70 | 50.00 | 1975 | [illegible] | C 2.5 | 23 | 25 / 25 / 25 / 25 |

**SECTION C**

41 DESCRIBE PROCESS OR UNIT
1. This unit provides ventilation for a spray booth used for
3. testing powders.
4.
5.
6.
7.
8.

**SECTION D**

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 40 C | 43 98 C | 44 Metco Wet Collector, 4CW C | 45 6 C | 46 04/91 C | 47 20 C |
| 48 40 A | 49 12 A | 50 Impingement Plate A | 51 6 A | 52 04/91 A | 53 20 A |

J-FORM ATTACHED

**SECTION E**

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS HOW DET | EMISSIONS [illegible] | % CONTROL EFFIC'CY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Nickle | 55 0 7 4 4 0-0 2 0 C | 56 | 57 | 59 0.049 C | 60 1 | 61 6 | 62 .049 C | 65 95 C | 64 0.98 C | 65 0.049 C | 66 2.832 C | 67 1 C |
| 69 Cobalt | 70 0 7 4 4 0-4 8 4 C | 71 | 72 B | 74 0.0060 C | 75 1 | 76 6 | 77 .006 C | 78 95 C | 79 0.114 C | 80 0.0060 C | 81 3.29 C | 82 0 C |
| 84 Molybdenum | 85 0 7 4 3 9-9 8 7 C | 86 | 87 C | 89 0.043 C | 90 1 | 91 6 | 92 .043 C | 93 95 C | 94 0.86 C | 95 0.043 C | 96 2.485 C | 97 1 C |
| 99 Titanium Dioxide | 100 1 3 4 6 3-6 7 7 C | 101 | 102 C | 104 0.011 C | 105 1 | 106 6 | 107 .011 C | 108 95 C | 109 0.22 C | 110 0.011 C | 111 6.36 C | 112 0 C |
| 114 Chromium | 115 0 7 4 4 0-4 7 3 C | 116 | 117 A | 119 0.004 C | 120 1 | 121 6 | 122 .004 C | 123 95 C | 124 0.08 C | 125 0.004 C | 126 2.31 C | 127 0 C |
| 129 Boron Nitride | 130 10043-11-5 C | 131 | 132 C | 134 .5 C | 135 2 C | 136 6 | 137 .5 C | 138 95 C | 139 [illegible] C | 140 [illegible] C | 141 2.9 C | 142 -1 C |

| SOLID FUEL TYPE | TONS/YR | % S | OIL TYPE | THOUSANDS OF GALLONS/YR | % S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF |
|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 |

| APPLICABLE RULE | APPLICABLE RULE |
|---|---|
| 153 212 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative.
THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert Lee | DATE: 9-25-91

**AGENCY USE ONLY**

| 156 LOCATION CODE | 157 FACILITY ID NO. | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 2 8 2 2 0 0 | 1 8 2 8 | 6 2 2 2 5 | 1 3 4 3 5 | 6 9 | / / | / / | |

PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

RECOMMENDED ACTION RE: C.O.

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | [signature] | 50/151 |

3100-311C-312C

173
1. ☑ INSPECTED BY 4/26 VSI DATE 9/27/91
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3. ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DENIED DATE INITIALED

174 SPECIAL CONDITIONS:
1. AG-1 Compliance
2. 3195
3.
4.
5.
6.
7.
8.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
PINK - FIELD REP
YELLOW - APPLICANT

ID: C | LOCATION: 2 8 2 2 0 0 | FACILITY: 1 8 2 8 | EMISSION POINT: 0 0 4 | 1

A ADD / C CHANGE / D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

c/o APPE. 92 GROUP

SECTION A

| | |
|---|---|
| 1 NAME OF OWNER/FIRM | Metco-Division of Perkin Elmer |
| 2 NUMBER AND STREET ADDRESS | 1101 Prospect Avenue |
| 3 CITY - TOWN - VILLAGE | Westbury |
| 4 STATE | NY |
| 5 ZIP | 11590 |
| 6 OWNER CLASSIFICATION | A COMMERCIAL B INDUSTRIAL C UTILITY D FEDERAL E STATE F MUNICIPAL G EDUC INST H HOSPITAL I RESIDENTIAL J OTHER — B INDUSTRIAL |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE | Patrick Tighe, Superintendent of Fac. |
| 8 TELEPHONE | (516) 334-1300 |
| 9 NAME OF AUTHORIZED AGENT | Donnelly Engineering |
| 10 TELEPHONE | (516) 979-7788 |
| 11 NUMBER AND STREET ADDRESS | 55 Southern Boulevard |
| 12 CITY - TOWN - VILLAGE | Nesconset |
| 13 STATE | NY |
| 14 ZIP | 11767 |
| 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | Robert J. Lee |
| 16 NYS P.E. OR ARCHITECT LICENSE NO. | 067049 |
| 17 TELEPHONE | (516) 979-7788 |
| 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | |
| 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) | |
| 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS) | 1101 Prospect Avenue |
| 21 CITY - TOWN - VILLAGE | Westbury, NY |
| 22 ZIP | 11590 |
| 23 BUILDING NAME OR NUMBER | 1 |
| 24 FLOOR NAME OR NUMBER | 1 |
| 25 START UP DATE MO / YR | |
| 26 DRAWING NUMBERS OF PLANS SUBMITTED | MPE-A10 |
| 27 PERMIT TO CONSTRUCT | A NEW SOURCE B MODIFICATION |
| 28 CERTIFICATE TO OPERATE | A NEW SOURCE C EXISTING SOURCE B MODIFICATION |

SECTION B

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 0 4 | 140 | 19 C | 35 C | 11 | 70 | 50.00 | 1975 | C 2.5 | 23 | 25 | 25 | 25 | 25 |

SECTION C

41 DESCRIBE PROCESS OR UNIT

This unit provides ventilation for a spray booth used for testing powders.

SECTION D

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 40 C | 43 98 C | 44 Metco Wet Collector, 4CW C | 45 6 C | 46 04/91 C | 47 20 C |
| 48 40 A | 49 12 A | 50 Impingement Plate A | 51 6 A | 52 04/91 A | 53 20 A |

J-FORM ATTACHED

SECTION E

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

SECTION F

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS ACTUAL | UNIT | HOW OFT | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ALLOWABLE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Nickle | 55 0 7 4 4 0-0 2 0 C | 56 | 57 | 59 0.049 C | 60 1 | 61 6 | 63 95 C | 64 0.98 C | 65 0.049 C | 66 2.832 C | 67 1 C |
| 69 Cobalt | 70 0 7 4 4 0-4 8 4 C | 71 | 72 B | 74 0.0060 C | 75 1 | 76 6 | 78 95 C | 79 0.114 C | 80 0.0060 C | 81 3.29 C | 82 0 C |
| 84 Molybdenum | 85 0 7 4 3 9-9 8 7 C | 86 | 87 C | 89 0.043 C | 90 1 | 91 6 | 93 95 C | 94 0.86 C | 95 0.043 C | 96 2.485 C | 97 1 C |
| 99 Titanium Dioxide | 100 1 3 4 6 3-6 7 7 C | 101 | 102 C | 104 0.011 C | 105 1 | 106 6 | 108 95 C | 109 0.22 C | 110 0.011 C | 111 6.36 C | 112 0 C |
| 114 Chromium | 115 0 7 4 4 0-4 7 3 C | 116 | 117 A | 119 0.004 C | 120 1 | 121 6 | 123 95 C | 124 0.08 C | 125 0.004 C | 126 2.31 C | 127 0 C |
| 129 Boron Nitride | 130 10043 11 5 C | 131 | 133 C | 134 .5 C ~~0.0005~~ | 135 2 | 136 6 | 138 95 C | 139 ~~0.0005~~ C | 140 ~~0.0005~~ C | 141 2.9 C | 142 1 C |

| SECTION G | SOLID FUEL TYPE | SOLID FUEL TONS/YR | % S | OIL TYPE | OIL THOUSANDS OF GALLONS/YR | % S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 212 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert Lee — DATE: 4-25-91

AGENCY USE ONLY

| 156 LOCATION CODE | 157 FACILITY ID NO | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY: |
|---|---|---|---|---|---|---|---|
| 2 8 2 2 0 0 | 1 8 2 8 | 6 2 2 2 5 | 1 3 4 3 5 6 9 | | / / | / / | |

PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

RECOMMENDED ACTION RE: C.O.

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | [signature] | 50/151 |

3100-311C-312C

173
1 ☑ INSPECTED BY 4/26 VSI DATE 9/7/91
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O DENIED — DATE — INITIALED

174 SPECIAL CONDITIONS:

1 AG-1 Compliance

2 3195

| 1 | 2 |
|---|---|
| 3 | 4 |
| 5 | 6 |
| 7 | 8 |

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
PINK - FIELD REP
YELLOW - APPLICANT

ID LOCATION FACILITY EMISSION POINT
2 8 2 2 0 0 / 1 8 2 8 0 0 4 / 1

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE % APRIL 92 GROUP

SECTION A

1 NAME OF OWNER/FIRM: Metco-Division of Perkin Elmer
2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue
3 CITY - TOWN - VILLAGE: Westbury | 4 STATE: NY | 5 ZIP: 11590
6 OWNER CLASSIFICATION: A COMMERCIAL B [X] INDUSTRIAL C UTILITY D FEDERAL E STATE F MUNICIPAL G EDUC INST H HOSPITAL I RESIDENTIAL J OTHER
7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac. | 8 TELEPHONE: (516) 334-1300

9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788
11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard
12 CITY - TOWN - VILLAGE: Nesconset | 13 STATE: NY | 14 ZIP: 11767
15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO: 067049 | 17 TELEPHONE: (516) 979-7788
18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT

19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM)
20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue
21 CITY - TOWN - VILLAGE: Westbury, NY | 22 ZIP: 11590
23 BUILDING NAME OR NUMBER: 1 | 24 FLOOR NAME OR NUMBER: 1
25 START UP DATE: MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10
27 PERMIT TO CONSTRUCT: A [ ] NEW SOURCE B [ ] MODIFICATION
28 CERTIFICATE TO OPERATE: A [ ] NEW SOURCE C [ ] EXISTING SOURCE B [X] MODIFICATION

SECTION B

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) |
|---|---|---|---|---|---|---|---|
| 0 0 4 | 140 | 13 C | 34 A | 11 | 70 | 45.00 | 1472 |

| 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|
| 303 | 2.5 | 231 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT:
1 This unit provides ventilation for a spray booth used for
3 testing powders.
4
5
6
7
8

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| C 42 41 | 43 98 | 44 Metco Wet Collector, 4CW | 45 6 | 46 6/78 | 47 20 |
| D 48 41 | 49 12 | 50 Impingement Plate | 51 6 | 52 06/78 | 53 20 |

S-FORM ATTACHED

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV. RATING | EMISSIONS ACTUAL | UNIT | HOW DET | EMISSIONS PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) IOT | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nickle | 0 7 4 4 0-0 2 0 | | | A | 0.049 | 1 | 6 | .049 | 95 | 0.98 | 0.049 | 2.832 | 1 | 2.822 |
| Cobalt | 0 7 4 4 0-4 8 4 | | | B | 0.0084 | 1 | 6 | .006 | 95 | 0.114 | 0.0080 | 3.29 | 0 | 3.29 |
| Molybdenum | 0 7 4 3 9-9 8 7 | | | C | 0.043 | 1 | 6 | .043 | 95 | 0.86 | 0.043 | 2.485 | 1 | 2.485 |
| Titanium Dioxide | 1 3 4 6-3-6 7 7 | | | C | 0.011 | 1 | 6 | .011 | 95 | 0.22 | 0.011 | 6.36 | 0 | 6.36 |
| Chromium | 0 7 4 4 0-4 7 3 | | | A | 0.004 | 1 | 6 | .004 | 95 | 0.08 | 0.004 | 2.31 | 0 | 2.31 |
| Boron Nitride | 10043-11-5 | | | C | 0.5 | 2 | 6 | .5 | 95 | 2.9 | 2.9 | 2.9 | -1 | 2.9 |

SECTION G

| SOLID FUEL TYPE | SOLID FUEL THOUSANDS/YR | SOLID FUEL % S | OIL TYPE | OIL THOUSANDS OF GALLONS/YR | OIL % S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF | APPLICABLE RULE 153 | APPLICABLE RULE 154 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 212 | |

Upon completion of construction, sign the statement listed below and forward to the appropriate field representative.
THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS.
155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee | DATE: 11-25-91

AGENCY USE ONLY

| 156 LOCATION CODE | 157 FACILITY ID NO | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 28220 0 | 1828 | 622125 | 4534856 | | / / | 02/24/92 | BLCAP |

PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

RECOMMENDED ACTION

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | | 310C-3 |

173
1 [✓] INSPECTED BY 426 VSI ..... DATE 9/7/91
2 [ ] INSPECT ON DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 [✓] ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 [ ] APPLICATION FOR C.O. DENIED ..... DATE ..... INITIALED

174 SPECIAL CONDITIONS:
1 AG-1 Compliance
2 3195
3
4
5
6
7
8

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
PINK - FIELD REP
YELLOW - APPLICANT

OP | LOCATION | FACILITY | EMISSION POINT
2 8 2 2 0 0 1 8 2 8 0 0 0 4 1

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

SECTION A

1 NAME OF OWNER/FIRM: Metco-Division of Perkin Elmer
2 NUMBER AND STREET ADDRESS: 1101 Prospect Avenue
3 CITY - TOWN - VILLAGE: Westbury | 4 STATE: NY | 5 ZIP: 11590
6 OWNER CLASSIFICATION: A ☐ COMMERCIAL C ☐ UTILITY F ☐ MUNICIPAL I ☐ RESIDENTIAL B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER E ☐ STATE H ☐ HOSPITAL
7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac. | 8 TELEPHONE: (516) 334-1300

9 NAME OF AUTHORIZED AGENT: Donnelly Engineering | 10 TELEPHONE: (516) 979-7788
11 NUMBER AND STREET ADDRESS: 55 Southern Boulevard
12 CITY - TOWN - VILLAGE: Nesconset | 13 STATE: NY | 14 ZIP: 11767
15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO: 067049 | 17 TELEPHONE: (516) 979-7788
18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT

19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM)
20 FACILITY LOCATION (NUMBER AND STREET ADDRESS): 1101 Prospect Avenue
21 CITY - TOWN - VILLAGE: Westbury, NY | 22 ZIP: 11590
23 BUILDING NAME OR NUMBER: 1 | 24 FLOOR NAME OR NUMBER: 1
25 START UP DATE: MO. / YR. | 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10
27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION
28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION

SECTION B

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) |
|---|---|---|---|---|---|---|---|
| 0 0 4 1 | 140 | 13 | 34 | 11 | 70 | 45.00 | 1472 |

| 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | For. |
|---|---|---|---|---|---|---|
| [redacted] | 2.5 | 231 | 25 | 25 | 25 | 25 |

SECTION C

41 DESCRIBE PROCESS OR UNIT: 1 CONTINUED

SECTION D

| EMISSION CONTROL EQUIPMENT I.D | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 | 43 | 44 | 45 | 46 / | 47 |
| 48 | 49 | 50 CONTINUED | 51 | 52 / | 53 |

SECTION E

CALCULATIONS

CONTINUED

PAGE 2 of 2

SECTION F

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS ACTUAL | EMISSIONS UNIT | EMISSIONS HOW DET | EMISSIONS PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) TOS | ANNUAL EMISSIONS (LBS/YR) PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Tungsten Carbide | 55 1 2 0 7 0-1 2 1 | 56 | 57 | 58 B | 59 0.014 | 60 1 | 61 6 | 62 .014 | 63 95 | 64 0.28 | 65 0.014 | 66 8.09 | 67 0 | 68 8.09 |
| 69 Copper | 70 0 7 4 4 0-5 0 8 | 71 | 72 | 73 C | 74 0.004 | 75 1 | 76 6 | 77 .004 | 78 95 | 79 0.08 | 80 0.004 | 81 2.31 | 82 0 | 83 2.31 |
| 84 Chromium Oxide (CRIII) | 85 0 1 3 0 8-3 8 9 | 86 | 87 | 88 B | 89 0.009 | 90 1 | 91 6 | 92 .009 | 93 95 | 94 0.18 | 95 0.009 | 96 5.20 | 97 0 | 98 5.20 |
| 99 Iron | 100 07439-89-6 | 101 | 102 | 103 C | 104 0.005 | 105 1 | 106 6 | 107 .005 | 108 95 | 109 0.10 | 110 0.005 | 111 2.89 | 112 0 | 113 2.89 |
| 114 Aluminum Oxide | 115 0 1 3 4 4-2 8 1 | 116 | 117 | 118 C | 119 0.008 | 120 1 | 121 6 | 122 .008 | 123 95 | 124 0.16 | 125 0.008 | 126 4.62 | 127 0 | 128 4.62 |
| 129 Other Particulate | 130 N Y 0 7 5-0 0 0 | 131 | 132 | 133 B | 134 0.230 | 135 1 | 136 6 | 137 .23 | 138 95 | 139 4.6 | 140 0.230 | 141 1.329 | 142 2 | 143 1.329 |

SECTION G

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL %S | OIL TYPE | OIL THOUSANDS OF GALLONS/YR | OIL %S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative
THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee | DATE: 11-25-91

AGENCY USE

| 156 LOCATION CODE | 157 FACILITY ID NO. | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

PERMIT TO CONSTRUCT

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| / / | / / | | |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

RECOMMENDED ACTION RE: C.O.

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| / / | / / | | |

173
1 ☐ INSPECTED BY _____ DATE _____
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O DENIED _____ DATE _____ INITIALED

174 SPECIAL CONDITIONS:
1 | 2
3 | 4
5 | 6
7 | 8

USE ONLY

LOCATION 2 8 2 2 0 0 | FACILITY / EMISSION POINT 1 8 2 8 0 0 0 4 6 | 00046

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

c/o APR 92 GROUP

| 1 NAME OF OWNER/FIRM | 9 NAME OF AUTHORIZED AGENT | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |
| **2 NUMBER AND STREET ADDRESS** | **11 NUMBER AND STREET ADDRESS** | | **20 FACILITY LOCATION (NUMBER AND STREET ADDRESS)** |
| 1101 Prospect Avenue | 55 Southern Boulevard | | 1101 Prospect Avenue |
| **3 CITY - TOWN - VILLAGE / 4 STATE / 5 ZIP** | **12 CITY - TOWN - VILLAGE / 13 STATE / 14 ZIP** | | **21 CITY - TOWN - VILLAGE / 22 ZIP** |
| Westbury / NY / 11590 | Nesconset / NY / 11767 | | Westbury, NY / 11590 |
| **6 OWNER CLASSIFICATION** | **15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION / 16 NYS P.E. OR ARCHITECT LICENSE NO. / 17 TELEPHONE** | | **23 BUILDING NAME OR NUMBER / 24 FLOOR NAME OR NUMBER** |
| A ☐ COMMERCIAL C ☐ UTILITY E ☐ STATE F ☐ MUNICIPAL H ☐ HOSPITAL I ☐ RESIDENTIAL | Robert J. Lee / 067049 / (516) 979-7788 | | 1 / 1 |
| B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER | | | **25 START UP DATE (MO / YR) / 26 DRAWING NUMBERS OF PLANS SUBMITTED** |
| **7 NAME & TITLE OF OWNERS REPRESENTATIVE / 8 TELEPHONE** | **18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT** | | MPE-A10 |
| Patrick Tighe, Superintendent of Pac. / (516) 334-1300 | | | **27 PERMIT TO CONSTRUCT** A ☐ NEW SOURCE B ☐ MODIFICATION / **28 CERTIFICATE TO OPERATE** A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION |

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN.) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 046 | 140 | 4 B | 20 C | 8 | 70 | 22.0 | 462 | 1105 | 1.8 | 184 C | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT

C This unit provides ventilation for a Grit Blaster. N4075-00-2 = STEEL

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| C 46 | 08 | Empire Baghouse PF-3648 C | 6 C | 05/88 C | 20 C |

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 OF 1

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV. RATING | EMISSIONS ACTUAL | UNIT | HOURS OF OP. | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | $10^3$ | PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Steel | N4075-00-2 C | | | C | 0.057 | 1 | 6 | .057 | 90 | 0.57 | 0.057 | 1.05 | 1 | 1.05 |
| Aluminum Oxide | 01344-28-1 A | | | C | 0.319 | 1 | 6 | .319 | 90 | 3.19 | 0.319 | 5.873 | 1 | 5.873 |
| Particulate | NY075-00-0 A | | | B | ~~0.0099~~ 3.84 | 2 | 6 | 3.8 | 90 | ~~0.0099~~ | ~~0.0099~~ 0 | 6.992 | -1 | 6.992 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| SOLID FUEL TYPE | TONS/YR | %S | LIQUID FUEL TYPE | THOUSANDS OF GALLONS/YR | %S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 212 | |

For completion of construction sign the statement listed below and forward to the appropriate field representative

I/We PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert Tighe — DATE: 11-25-91

| LOCATION CODE | FACILITY ID NO | U T M (E) | U T M (N) | SIC NUMBER | DATE APPL RECEIVED | DATE APPL REVIEWED | REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 282200 | 1828622.2 | 5134356.9 | | | / / | 02/25/92 | BIGCH |

## PERMIT TO CONSTRUCT

| DATE ISSUED | EXPIRATION DATE | SIGNATURE OF APPROVAL | FEE |
|---|---|---|---|
| / / | / / | | |

1. DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2. THIS IS NOT A CERTIFICATE TO OPERATE
3. TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

| DATE ISSUED | EXPIRATION DATE | SIGNATURE OF APPROVAL | FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | Theodore W. Bayer | $50/VS1 |

3100-3110-3120

1. ☑ INSPECTED BY YZ & VS1 — DATE 9/9/91
2. ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3. ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DENIED — DATE — INITIALED

SPECIAL CONDITIONS:

1. AG-1 Compliance
2. 3195

LOCATION 2 4 2 2 0 0 | FACILITY 1 8 2 8 | EMISSION POINT 0 0 4 7 1

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

P/C - FEB 92 GROUP
C/O - APR 92 GROUP

| 1. NAME OF OWNER/FIRM | 9 NAME OF AUTHORIZED AGENT | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |

| 2 NUMBER AND STREET ADDRESS | 11 NUMBER AND STREET ADDRESS | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS) |
|---|---|---|
| 1101 Prospect Avenue | 55 Southern Boulevard | 1101 Prospect Avenue |

| 3 CITY - TOWN - VILLAGE | 4 STATE | 5 ZIP | 12 CITY - TOWN - VILLAGE | 13 STATE | 14 ZIP | 21 CITY - TOWN - VILLAGE | 22 ZIP |
|---|---|---|---|---|---|---|---|
| Westbury | NY | 11590 | Nesconset | NY | 11767 | Westbury, NY | 11590 |

6 OWNER CLASSIFICATION: E ☐ STATE H ☐ HOSPITAL; A ☐ COMMERCIAL C ☐ UTILITY F ☐ MUNICIPAL I ☐ RESIDENTIAL; B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER

| 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | 16 NYS P.E. OR ARCHITECT LICENSE NO. | 17 TELEPHONE | 23 BUILDING NAME OR NUMBER | 24 FLOOR NAME OR NUMBER |
|---|---|---|---|---|
| Robert J. Lee | 067049 | (516) 979-7788 | 1 | 1 |

| 7 NAME & TITLE OF OWNERS REPRESENTATIVE | 8 TELEPHONE | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | 25 START UP DATE MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED |
|---|---|---|---|---|
| Patrick Tighe<br>Superintendent of Fac. | (516) 334-1300 | | / | MPE-A10 |

27 PERMIT TO CONSTRUCT: A ☒ NEW SOURCE B ☐ MODIFICATION

28 CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEA... Winter | Spring | Summer | Fa... |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 4 7 | 140 | 11 | 32 | 11 | 70 | 46.00 | 1820 | 1105 | 4.0 | 251 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT

This unit provides ventilation for a Grit Blast Booth used for demonstration operations. - (3) GRIT CHAMBERS

| 42 EMISSION CONTROL EQUIPMENT I.D. | 43 CONTROL TYPE | 44 MANUFACTURER'S NAME AND MODEL NUMBER | 45 DISPOSAL METHOD | 46 DATE INSTALLED MONTH / YEAR | 47 USEFUL LIFE | 3 UNIT FORMS ATTACHED |
|---|---|---|---|---|---|---|
| 47 | 98 | Metco Wet Collector, 4CW | 6 | 06/89 | 20 | |

CALCULATIONS

SEE ATTACHED 76-19-4

PAGE 1 OF 1

(3) UNITS

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS ACTUAL | UNIT | HOURLY DET | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | 10? | PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Steel | NY075-00-2 | | | C | 0.0789 | 1 | 6 | .078 | 90 | 0.779 | 0.0780 | 7.821 | 1 | 7.821 |
| Aluminum Oxide | 01346-2-8-1 | | | C | 0.479 | 1 | 6 | .479 | 90 | 4.79 | 0.479 | 4.72 | 2 | 4.72 |
| Particulate | NY075-00-0 | | | B | 0.002# | 1 | 6 | .002 | 90 | 0.024 | 0.002# | 2.4 | 0 | 2.4 |

| SOLID FUEL TYPE | TONS/YR | % S | LIQUID FUEL TYPE | THOUSANDS OF GALLONS/YR | % S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 212 | |

On completion of construction sign the statement listed below and forward to the appropriate field representative.

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

165 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee — DATE: 11-25-91

| 155 LOCATION CODE | 157 FACILITY ID NO | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 JOB NUMBER | 161 DATE APPLICATION RECEIVED | 162 DATE APPLICATION REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 2 8 5 2 0 0 | 1 8 2 8 | 6 2 2 2 5 1 3 | 4 3 5 6 9 | | | 02 25 92 | BLOCK |

## PERMIT TO CONSTRUCT

| 166 DATE ISSUED | 167 EXPIRATION DATE | 168 SIGNATURE OF APPROVING REPRESENTATIVE | 169 FEE |
|---|---|---|---|
| 11 15 91 | 11 14 92 | Theodore B. Berger | 200/VS1 |

166 1 DEVIATION FROM APPROVED APPLICATION (SEE ITEM 76) 2 THIS IS NOT A CERTIFICATE TO OPERATE 3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

| 170 DATE ISSUED | 171 EXPIRATION DATE | 172 SIGNATURE OF APPROVING REPRESENTATIVE | 173 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | Theodore B. Berger | 200/VS1 |

310-311C-312C

173 1 ☑ INSPECTED BY 428 VS1 DATE 9/7/91
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3 ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C.O. DENIED DATE INITIALED

174 SPECIAL CONDITIONS

1 AG-1-COMPLIANCE

2 3195

JUN 12 1992

| ID | LOCATION | FACILITY | EMISSION POINT | UNIT I.D. |
|---|---|---|---|---|
| | 2 8 2 2 5 D | 1 6 2 8 | 0 0 0 4 7 | 1 6 1 |

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## UNIT OR PROCESS DATA

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

PLEASE PRINT OR TYPE

SEC. H

| 175 EMISSION POINT I.D. | 176 UNIT I.D. |
|---|---|
| 0 4 7 | 0 1 |

| 177 SOURCE CODE | 178 HRS/DAY | 179 DAYS/YR | 180 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|
| 1105 | 3 | 251 | 25 | 25 | 25 | 25 |

SEC. I

181 DESCRIBE PROCESS OR UNIT

This unit provides ventilation for a grit blaster.

SEC. J

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED | USEFUL LIFE |
|---|---|---|---|---|---|
| 182 | 183 ~~98~~ 99 | 184 ~~Meteo Wet Collector,~~ 4CW | 185 6 | 186 / | 187 20 |
| 188 | 189 | 190 | 191 | 192 / | 193 |

SECTION K

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 1

.319
2.87

SECTION L

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS ACTUAL | UNIT | HOW DET | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | $10^x$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 194 Steel | 195 N4075 00 2 | 196 | 197 | 198 .319 | 199 1 | 200 6 | 201 0 | 202 .319 | 203 .319 | 204 240.2 | 205 0 |
| 206 Aluminum Oxide | 207 0 1 3 4 4-2 8-1 | 208 | 209 | 210 2.87 | 211 1 | 212 6 | 213 0 | 214 2.87 | 215 2.87 | 216 2161 | 217 0 |
| 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 |
| 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 |
| 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 |
| 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 |

| OP | LOCATION | FACILITY | EMISSION POINT | UNIT I.D. |
|---|---|---|---|---|
| | 2 8 2 2 0 0 | 1 8 2 8 | 6 0 0 4 7 | I 0 2 |

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## UNIT OR PROCESS DATA

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

PLEASE PRINT OR TYPE

| SEC. H | 175 EMISSION POINT I.D. | 176 UNIT I.D. |
|---|---|---|
| | 0 4 7 | 0 2 |

| 177 SOURCE CODE | 178 HRS/DAY | 179 DAYS/YR | 180 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|
| 1105 | 0.5 | 251 | 25 | 25 | 25 | 25 |

| SEC. I | 181 DESCRIBE PROCESS OR UNIT | | |
|---|---|---|---|
| | | 1. This unit provides ventilation for a grit blaster. | 2. |
| | | 3. | 4. |
| | | 5. | 6. |
| | | 7. | 8. |

| SEC. J | EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED | USEFUL LIFE |
|---|---|---|---|---|---|---|
| | 182 | 183 98 | 184 ~~Metco Wet Collector, 4CW~~ | 185 6 | 186 / | 187 20 |
| | 188 | 189 | 190 | 191 | 192 / | 193 |

SECTION K

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 1

SECTION L

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS ACTUAL | UNIT | HOW DET. | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | $10^x$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 194 Steel | 195 NY075 00 2 | 196 | 197 | 198 0.23 | 199 1 | 200 6 | 201 0 | 202 0.23 | 203 0.23 | 204 28.87 | 205 0 |
| 206 Aluminum Oxide | 207 0 1 3 4 4-2 8-1 | 208 | 209 | 210 0.96 | 211 1 | 212 6 | 213 0 | 214 0.96 | 215 0.96 | 216 120.5 | 217 |
| 218 Particulate | 219 N Y 0 7 5-0 0-0 | 220 | 221 | 222 0.012 | 223 1 | 224 6 | 225 0 | 226 0.012 | 227 0.012 | 228 1.506 | 229 |
| 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 |
| 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 |
| 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 |

2822001828000471 03

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## UNIT OR PROCESS DATA

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

PLEASE PRINT OR TYPE

SEC. H

| 175 EMISSION POINT I.D. | 176 UNIT I.D. |
|---|---|
| 047 | 03 |

| 177 SOURCE CODE | 178 HRS/DAY | 179 DAYS/YR | 180 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|
| 1105 | 0.5 | 251 | 25 | 25 | 25 | 25 |

SEC. I

181 DESCRIBE PROCESS OR UNIT

1 Unit provides ventilation for a Grit Blaster
2
3
4
5
6
7
8

SEC. J

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED | USEFUL LIFE |
|---|---|---|---|---|---|
| 182 | 183 99 ~~98~~ | 184 ~~Metco Wet Collector, 4~~ CW | 185 ~~6~~ | 186 / | 187 20 |
| 188 | 189 | 190 | 191 | 192 / | 193 |

SECTION K

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 of 1

SECTION L

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS ACTUAL | UNIT | HOW DET | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | $10^{-6}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 194 Steel | 195 NY075 00 2 | 196 | 197 | 198 0.23 | 199 1 | 200 6 | 201 0 | 202 0.23 | 203 0.23 | 204 126 | 205 0 |
| 206 Aluminum Oxide | 207 0 1 3 4 4-2 8-1 | 208 | 209 | 210 0.96 | 211 1 | 212 6 | 213 0 | 214 0.96 | 215 0.96 | 216 120.5 | 217 0 |
| 218 Particulate | 219 N Y 0 7 5-0 0-0 | 220 | 221 | 222 0.012 | 223 1 | 224 6 | 225 0 | 226 0.012 | 227 0.012 | 228 1.506 | 229 0 |
| 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 |
| 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 |
| 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 |

LOCATION 2 8 2 2 0 0 | FACILITY / EMISSION POINT 1 8 2 8 | 0 0 5 | 0 1

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

c/o APR-92 GROUP

| 6 NAME OF OWNER/FIRM | 9 NAME OF AUTHORIZED AGENT | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |
| 7 NUMBER AND STREET ADDRESS | 11 NUMBER AND STREET ADDRESS | | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS) |
| 1101 Prospect Avenue | 55 Southern Boulevard | | 1101 Prospect Avenue |
| 3 CITY - TOWN - VILLAGE / 4 STATE / 5 ZIP | 12 CITY - TOWN - VILLAGE / 13 STATE / 14 ZIP | | 21 CITY - TOWN - VILLAGE / 22 ZIP |
| Westbury / NY / 11590 | Nesconset / NY / 11767 | | Westbury, NY / 11590 |
| 8 OWNER CLASSIFICATION: A ☐ COMMERCIAL B ☒ INDUSTRIAL C ☐ UTILITY D ☐ FEDERAL E ☐ STATE F ☐ MUNICIPAL G ☐ EDUC INST H ☐ HOSPITAL I ☐ RESIDENTIAL J ☐ OTHER | 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION: Robert J. Lee | 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO.: 067049 | 17 TELEPHONE: (516) 979-7788 |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE: Patrick Tighe, Superintendent of Fac. | 8 TELEPHONE: (516) 334-1300 | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | 23 BUILDING NAME OR NUMBER: 1 / 24 FLOOR NAME OR NUMBER: 1 |
| | | | 25 START UP DATE MO / YR / 26 DRAWING NUMBERS OF PLANS SUBMITTED: MPE-A10 |
| | | | 27 PERMIT TO CONSTRUCT: A ☐ NEW SOURCE B ☐ MODIFICATION / CERTIFICATE TO OPERATE: A ☐ NEW SOURCE C ☐ EXIST NC SOURCE B ☒ MODIFICATION |

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON: Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 5 0 | 140 | 12 C | 33 C | 24 | 70 | 74.27 | 14,000 | 1303 | 2.5 C | 23 F | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT:

This unit provides ventilation for a Water Wash Spray Booth used for testing finished products (powder and wires) and for demonstrating products.

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE | |
|---|---|---|---|---|---|---|
| 42 50 C | 43 98 C | 44 WATER WASH BOOTH - Cat 857 C | 45 6 C | 46 02/91 C | 47 20 C | J-FORM ATTACHED. |
| 48 50 A | 49 12 A | 50 IMPINGEMENT PLATE A | 51 6 A | 52 02/91 A | 53 20 A | |

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 OF 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS: ACTUAL | UNIT | HOW DET | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR): ERP | ACTUAL | ANNUAL EMISSIONS (LBS): ACTUAL | TOX | PERMIT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Nickle | 55 07440-02-0 C | 56 | 57 | 58 A C | 59 0.049 C | 60 1 | 61 6 | 62 .049 C | 63 95 C | 64 0.98 C | 65 0.049 C | 66 2.832 C | 67 1 C | 68 2.832 C |
| 69 Cobalt | 70 07440-48-4 | 71 | 72 | 73 B C | 74 0.0060 C | 75 1 | 76 6 | 77 .006 C | 78 95 C | 79 0.114 C | 80 0.0060 C | 81 3.29 C | 82 0 C | 83 3.29 C |
| 84 Molybdenum | 85 07439-98-7 C | 86 | 87 | 88 C C | 89 0.043 C | 90 1 | 91 6 | 92 .043 C | 93 95 C | 94 0.86 C | 95 0.043 C | 96 2.485 C | 97 1 C | 98 2.485 C |
| 99 Titanium Dioxide | 100 13463-67-7 C | 101 | 102 | 103 C C | 104 0.011 C | 105 1 | 106 6 | 107 .011 C | 108 95 C | 109 0.22 C | 110 0.011 C | 111 6.36 C | 112 0 C | 113 6.36 C |
| 114 Chromium | 115 07440-47-3 A | 116 | 117 | 118 A A | 119 0.004 A | 120 1 | 121 6 | 122 .004 A | 123 95 A | 124 0.08 A | 125 0.004 A | 126 2.31 A | 127 0 A | 128 2.31 A |
| 129 Boron Nitride | 130 10043-11-5 A | 131 | 132 | 133 C A | 134 ~~.5~~ 0.0005 A | 135 2 A | 136 6 | 137 .5 A | 138 95 A | 139 ~~0.100~~ 0.0025 A | 140 ~~0.100~~ 0.0025 A | 141 2.9 A | 142 -1 A | 143 2.9 A |

| SOLID FUEL TYPE | TONS/YR | % S | LIQUID FUEL TYPE | THOUSANDS OF GALLONS/YR | % S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 Z-12 | 154 |

For completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee — DATE: 11-25-91

| 14 LOCATION CODE | 15 FACILITY ID NO. | 15A U T M (E) | 15B U T M (N) | 16 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 282200 | 1828 | 622.2 | 5134 | 3569 | / / | 02/25/92 | BLG CAP |

## PERMIT TO CONSTRUCT

164 DATE ISSUED / 165 EXPIRATION DATE / 166 SIGNATURE OF APPROVAL / 167 FEE

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

## CERTIFICATE TO OPERATE

169 DATE ISSUED: 11/16/91 / 170 EXPIRATION DATE: 11/15/96 / 171 SIGNATURE OF APPROVAL: Theodore A. Bayer / 172 FEE: $50/VSI

310C-311C-312C

173
1 ☑ INSPECTED BY Y28 VSI — DATE: 9/1/91
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C O DEEMED — DATE — INITIALED

$163.50

174 SPECIAL CONDITIONS:

1 AG-1 Compliance

2 3195

JUN 12 1992

LOCATION 2 5 2 2 0 0 | FACILITY / EMISSION POINT 1 5 2 8 0 0 0 5 0 J

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 NAME OF OWNER/FIRM | | | 9 NAME OF AUTHORIZED AGENT | | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) | | |
| Metco-Division of Perkin Elmer | | | Donnelly Engineering | | (516) 979-7788 | | | |
| 2 NUMBER AND STREET ADDRESS | | | 11 NUMBER AND STREET ADDRESS | | | 20 FACILITY LOCATION (NUMBER AND STREET ADDRESS) | | |
| 1101 Prospect Avenue | | | 55 Southern Boulevard | | | 1101 Prospect Avenue | | |
| 3 CITY - TOWN - VILLAGE | 4 STATE | 5 ZIP | 12 CITY - TOWN - VILLAGE | 13 STATE | 14 ZIP | 21 CITY - TOWN - VILLAGE | | 22 ZIP |
| Westbury | NY | 11590 | Nesconset | NY | 11767 | Westbury, NY | | 11590 |
| 6 OWNER CLASSIFICATION: A [ ] COMMERCIAL B [X] INDUSTRIAL C [ ] UTILITY D [ ] FEDERAL E [ ] STATE F [ ] MUNICIPAL G [ ] EDUC INST H [ ] HOSPITAL I [ ] RESIDENTIAL J [ ] OTHER | | | 15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION | 16 NYS P.E. OR ARCHITECT LICENSE NO. | 17 TELEPHONE | 23 BUILDING NAME OR NUMBER | 24 FLOOR NAME OR NUMBER | |
| | | | Robert J. Lee | 067049 | (516) 979-7788 | 1 | 1 | |
| 7 NAME & TITLE OF OWNERS REPRESENTATIVE | | 8 TELEPHONE | 18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT | | | 25 START UP DATE MO / YR | 26 DRAWING NUMBERS OF PLANS SUBMITTED | |
| Patrick Tighe<br>Superintendent of Fac. | | (516) 334-1300 | | | | | MPE-A10 | |
| | | | | | | 27 PERMIT TO CONSTRUCT A [ ] NEW SOURCE B [ ] MODIFICATION | 28 CERTIFICATE TO OPERATE A [ ] NEW SOURCE C [ ] EXISTING SOURCE B [X] MODIFICATION | |

| 29 EMISSION POINT ID. | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON Winter | Spring | Summer | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 5 0 | 140 | 12 | 33 | 24 | 70 | 77.27 | 14,000 | | 2.5 | 231 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT

CONTINUED

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 | 43 | 44 | 45 | 46 / | 47 |
| 48 | 49 | 50 | 51 | 52 / | 53 |

CALCULATIONS

CONTINUED

PAGE 2 of 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS ACTUAL | UNIT | HOURS/YR OPER | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | IC* | PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Tungsten Carbide | 55 1 2 0 7 0-1 2-1 | 56 | 57 | 58 B | 59 0.014 | 60 1 | 61 6 | 62 .014 | 63 95 | 64 0.28 | 65 0.014 | 66 8.09 | 67 0 | 68 8.09 |
| 69 Copper | 70 0 7 4 4 0-5 0-8 | 71 | 72 | 73 C | 74 0.004 | 75 1 | 76 6 | 77 .004 | 78 95 | 79 0.08 | 80 0.004 | 81 2.31 | 82 0 | 83 2.31 |
| 84 Chromium Oxide (CRIII) | 85 0 1 3 0 8-3 8-9 | 86 | 87 | 88 B | 89 0.009 | 90 1 | 91 6 | 92 .009 | 93 95 | 94 0.18 | 95 0.009 | 96 5.20 | 97 0 | 98 5.20 |
| 99 Iron | 100 07439-89-6 | 101 | 102 | 103 C | 104 0.005 | 105 1 | 106 6 | 107 .005 | 108 95 | 109 0.10 | 110 0.005 | 111 2.89 | 112 0 | 113 2.89 |
| 114 Aluminum Oxide | 115 0 1 3 4 4-2 8-1 | 116 | 117 | 118 C | 119 0.008 | 120 1 | 121 6 | 122 .008 | 123 95 | 124 0.16 | 125 0.008 | 126 4.62 | 127 0 | 128 4.62 |
| 129 Other Particulate | 130 N Y 0 7 5-0 0 0 | 131 | 132 | 133 B | 134 0.230 | 135 1 | 136 6 | 137 .23 | 138 95 | 139 4.6 | 140 0.230 | 141 1.329 | 142 2 | 143 1.329 |

| SOLID FUEL TYPE | TONS/YR | % S | LIQUID FUEL TYPE | THOUSANDS OF GALLONS/YR | % S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 |

*On completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J Lee

DATE: 11-25-91

| 155 LOCATION CODE | 157 FACILITY ID NO | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 SIC NUMBER | 166 DATE APPL. RECEIVED | 167 DATE APPL. REVIEWED | 168 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

## PERMIT TO CONSTRUCT

169 DEVIATION FROM APPROVED APPL. OR DRAWING SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

| 170 DATE ISSUED | 171 EXPIRATION DATE | 172 SIGNATURE OF APPROVAL | 173 FEE |
|---|---|---|---|
| / / | / / | | |

## CERTIFICATE TO OPERATE

173
1 [ ] INSPECTED BY _____ DATE _____
2 [ ] INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 [ ] ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 [ ] APPLICATION FOR C.O. DENIED — DATE _____ INITIALED _____

174 SPECIAL CONDITIONS:

1 2
3 4
5 6
7 8

LOCATION 2 9 2 2 0 0 / FACILITY 1 8 2 8 / EMISSION POINT 0 0 5 / 1

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

P/C - FEB 92 GROUP
O - APR 92 GROUP

| 1 NAME OF OWNER/FIRM | 9 NAME OF AUTHORIZED AGENT | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |
| **2 NUMBER AND STREET ADDRESS** | **11 NUMBER AND STREET ADDRESS** | | **20 FACILITY LOCATION (NUMBER AND STREET ADDRESS)** |
| 1101 Prospect Avenue | 55 Southern Boulevard | | 1101 Prospect Avenue |
| **3 CITY - TOWN - VILLAGE / 4 STATE / 5 ZIP** | **12 CITY - TOWN - VILLAGE / 13 STATE / 14 ZIP** | | **21 CITY - TOWN - VILLAGE / 22 ZIP** |
| Westbury / NY / 11590 | Nesconset / NY / 11767 | | Westbury, NY / 11590 |
| **6 OWNER CLASSIFICATION** | **15 NAME OF P.E. OR ARCHITECT PREPARING APPLICATION / 16 N.Y.S. P.E. OR ARCHITECT LICENSE NO / 17 TELEPHONE** | | **23 BUILDING NAME OR NUMBER / 24 FLOOR NAME OR NUMBER** |
| A ☐ COMMERCIAL C ☐ UTILITY F ☐ MUNICIPAL I ☐ RESIDENTIAL<br>B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER<br>E ☐ STATE H ☐ HOSPITAL | Robert J. Lee / 067049 / (516) 979-7788 | | 1 / 1 |
| **7 NAME & TITLE OF OWNERS REPRESENTATIVE / 8 TELEPHONE** | **18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT** | | **25 START UP DATE (MO / YR) / 26 DRAWING NUMBERS OF PLANS SUBMITTED** |
| Patrick Tighe<br>Superintendent of Fac. / (516) 334-1300 | | | MPE-A10 |
| | | | **27 PERMIT TO CONSTRUCT**<br>A ☒ NEW SOURCE<br>B ☐ MODIFICATION |
| | | | **28 CERTIFICATE TO OPERATE**<br>A ☐ NEW SOURCE C ☐ EXIST NO SOURCE<br>B ☒ MODIFICATION |

| 29 EMISSION POINT ID | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON (Winter / Spring / Summer / Fall) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 5 1 | 140 | 0 | 14 | 24 | 70 | 53.05 | 10,000 | 1308 | 2.0 C | 231 C | 25 / 25 / 25 / 25 |

**41 DESCRIBE PROCESS OR UNIT**

Unit provides ventilation for three (3) spray booths used for testing powders.

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 51 C | 43 98 C | 44 Farr Dust Collector C | 45 6 C | 46 10/85 C | 47 20 C |
| 48 51 A | 49 12 A | 50 IMPINGEMENT PLATE A | 51 6 A | 52 10/85 A | 53 20 A |

3 UNIT FORMS ATTACHED - ALL INFO ON UNITS SHOULD BE INPUT
J-FORM ATTACHED

**CALCULATIONS**

SEE ATTACHED 76-19-4

PAGE 1 OF 2

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS ACTUAL | UNIT | HOW OFT | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | TC* | PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54. Nickel | 0 7 4 4 0-0 2-0 C | 56 | 57 | 58 A | 59 0.147 C | 60 1 | 61 6 | 62 .147 C | 63 95 C | 64 2.94 C | 65. 0.147 C | 66 6.791 C | 67 1 | 68 6.791 A |
| 69 Cobalt | 70 0 7 4 4 0-4 8-4 C | 71 | 72 | 73 B C | 74 0.0171 C | 75 1 | 76 6 | 77 .017 A | 78 95 C | 79 0.342 C | 80. 0.0171 C | 81 7.900 C | 82 0 C | 83 7.9 A |
| 84 Molybdenum | 85 0 7 4 3 9-9 8-7 C | 86 | 87 | 88 C C | 89 0.129 C | 90 1 | 91 6 | 92 .129 C | 93 95 C | 94 2.58 C | 95 0.129 C | 96 5.960 C | 97 1 C | 98 5.96 A |
| 99 Titanium Dioxide | 100 1 3 4 6 3-6 7-7 C | 101 | 102 | 103 C C | 104 0.033 C | 105 1 | 106 6 | 107 .033 C | 108 95 C | 109 0.66 C | 110 0.033 C | 111 1.525 C | 112 1 C | 113 1.525 A |
| 114 Chromium | 115 0 7 4 4 0-4 7-3 A | 116 | 117 | 118 A A | 119 0.012 A | 120 1 A | 121 6 A | 122 .012 A | 123 95 A | 124 0.24 A | 125 0.012 A | 126 5.544 A | 127 0 A | 128 5.544 A |
| 129 Boron Nitride | 130 10043-11-5 A | 131 | 132 | 133 C A | 134 0.0026 A | 135 1 A | 136 6 A | 137 .002 A | 138 95 A | 139 0.03 A | 140 0.0026 A | 141 0.023 A | 142 -1 | 143 9.2 A |

| SOLID FUEL TYPE | SOLID FUEL TONS/YR | SOLID FUEL %S | LIQUID FUEL TYPE | LIQUID FUEL THOUSANDS OF GALLONS/YR | LIQUID FUEL %S | GAS TYPE | GAS THOUSANDS OF CF/YR | GAS BTU/CF |
|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 |

| APPLICABLE RULE | APPLICABLE RULE |
|---|---|
| 153. 212 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert J. Lee — DATE: 11-21-91

| 156 LOCATION CODE | 157 FACILITY ID NO | 158 U T M (E) | 159 U T M (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| 2 8 2 2 0 0 | 1 8 2 8 | 6 2 2 2 5 1 | 4 3 5 6 9 | | / / | 02/25/92 | BLCAP |

**PERMIT TO CONSTRUCT**

| 164 DATE ISSUED | 165 EXPIRATION DATE | 166 SIGNATURE OF APPROVAL | 167 FEE |
|---|---|---|---|
| 11/15/91 | 11/14/92 | Theodore A. Tapper | $150/151 |

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR ADDITIONAL EMISSION CONTROL EQUIPMENT MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

**CERTIFICATE TO OPERATE?**

| 169 DATE ISSUED | 170 EXPIRATION DATE | 171 SIGNATURE OF APPROVAL | 172 FEE |
|---|---|---|---|
| 11/16/91 | 11/15/92 | Theodore A. Tapper | $160/161 |

310C-311C-312C

173
1 ☑ INSPECTED BY 428 VS1 DATE 9/7/91
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS. PERMIT, CHANGES INDICATED ON FORM
3. ☑ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4. ☐ APPLICATION FOR C.O. DENIED ____ DATE ____ INITIALED ____

**174 SPECIAL CONDITIONS**

1 AGI-COMPLIANCE
2 3195
3
4
5
6

JUN 1 0 1992

LOCATION / FACILITY / EMISSION POINT: 2-42-07-82-84-00057-1

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

A ADD
C CHANGE
D DELETE

READ INSTRUCTIONS CONTAINED IN FORM 75-11-12 BEFORE ANSWERING ANY QUESTION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

| 1 NAME OF OWNER/FIRM | 9 NAME OF AUTHORIZED AGENT | 10 TELEPHONE | 19 FACILITY NAME (IF DIFFERENT FROM OWNER/FIRM) |
|---|---|---|---|
| Metco-Division of Perkin Elmer | Donnelly Engineering | (516) 979-7788 | |
| **2 NUMBER AND STREET ADDRESS** | **11 NUMBER AND STREET ADDRESS** | | **20 FACILITY LOCATION (NUMBER AND STREET ADDRESS)** |
| 1101 Prospect Avenue | 55 Southern Boulevard | | 1101 Prospect Avenue |
| **3 CITY - TOWN - VILLAGE / 4 STATE / 5 ZIP** | **12 CITY - TOWN - VILLAGE / 13 STATE / 14 ZIP** | | **21 CITY - TOWN - VILLAGE / 22 ZIP** |
| Westbury / NY / 11590 | Nesconset / NY / 11767 | | Westbury, NY / 11590 |
| **6 OWNER CLASSIFICATION** E ☐ STATE H ☐ HOSPITAL; A ☐ COMMERCIAL C ☐ UTILITY F ☐ MUNICIPAL I ☐ RESIDENTIAL; B ☒ INDUSTRIAL D ☐ FEDERAL G ☐ EDUC INST J ☐ OTHER | **15 NAME OF PE OR ARCHITECT PREPARING APPLICATION / 16 N.Y.S. PE OR ARCHITECT LICENSE NO / 17 TELEPHONE** | | **23 BUILDING NAME OR NUMBER / 24 FLOOR NAME OR NUMBER** |
| | Robert J. Lee / 067049 / (516) 979-7788 | | 1 / 1 |
| **7 NAME & TITLE OF OWNERS REPRESENTATIVE / 8 TELEPHONE** | **18 SIGNATURE OF OWNERS REPRESENTATIVE OR AGENT WHEN APPLYING FOR A PERMIT TO CONSTRUCT** | | **25 START UP DATE (MO / YR) / 26 DRAWING NUMBERS OF PLANS SUBMITTED** |
| Patrick Tighe, Superintendent of Fac. / (516) 334-1300 | | | MPE-A10 |
| | | | **27 PERMIT TO CONSTRUCT** A ☐ NEW SOURCE B ☐ MODIFICATION; **28 CERTIFICATE TO OPERATE** A ☐ NEW SOURCE C ☐ EXISTING SOURCE B ☒ MODIFICATION |

| 29 EMISSION POINT ID. | 30 GROUND ELEVATION (FT) | 31 HEIGHT ABOVE STRUCTURES (FT) | 32 STACK HEIGHT (FT) | 33 INSIDE DIMENSIONS (IN.) | 34 EXIT TEMP (°F) | 35 EXIT VELOCITY (FT/SEC) | 36 EXIT FLOW RATE (ACFM) | 37 SOURCE CODE | 38 HRS/DAY | 39 DAYS/YR | 40 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 051 | 140 | | 14 | 24 | 70 | 53.05 | 10,000 | | 2.0 | 231 | 25 | 25 | 25 | 25 |

41 DESCRIBE PROCESS OR UNIT: CONTINUED

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED MONTH / YEAR | USEFUL LIFE |
|---|---|---|---|---|---|
| 42 | 43 | 44 | 45 | 46 / | 47 |
| 48 | 49 | 50 | 51 | 52 / | 53 |

CALCULATIONS

CONTINUED



| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | ENV RATING | EMISSIONS ACTUAL | UNIT | HOURS/DAY | PERMISSIBLE | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | TON | PERMISSIBLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 Tungsten Carbide | 12070-12-1 | 56 | 57 | 58 B | 59 0.042 | 60 1 | 61 6 | 62 .042 | 63 95 | 64 0.84 | 65 0.042 | 66 1.940 | 67 1 | 68 1.94 |
| 69 Copper | 07440-50-8 | 71 | 72 | 73 C | 74 0.012 | 75 1 | 76 6 | 77 .012 | 78 95 | 79 0.24 | 80 0.012 | 81 5.54 | 82 0 | 83 5.54 |
| 84 Chromium Oxide(Cr III) | 01308-38-9 | 86 | 87 | 88 B | 89 0.027 | 90 1 | 91 6 | 92 .027 | 93 95 | 94 0.54 | 95 0.027 | 96 1.247 | 97 1 | 98 1.247 |
| 99 Iron | 07439-89-6 | 101 | 102 | 103 C | 104 0.015 | 105 1 | 106 6 | 107 .015 | 108 95 | 109 0.30 | 110 0.015 | 111 6.93 | 112 0 | 113 6.93 |
| 114 Aluminum Oxide | 01344-28-1 | 116 | 117 | 118 C | 119 0.024 | 120 1 | 121 6 | 122 .024 | 123 95 | 124 0.48 | 125 0.024 | 126 1.109 | 127 1 | 128 1.109 |
| 129 Other Particulate | NY075-00-0 | 131 | 132 | 133 B | 134 0.69 | 135 1 | 136 6 | 137 .69 | 138 95 | 139 13.8 | 140 0.69 | 141 3.188 | 142 2 | 143 3.188 |

| SOLID FUEL TYPE | TONS/YR | % S | LIQUID FUEL TYPE | THOUSANDS OF GALLONS/YR | % S | GAS TYPE | THOUSANDS OF CF/YR | BTU/CF | APPLICABLE RULE | APPLICABLE RULE |
|---|---|---|---|---|---|---|---|---|---|---|
| 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 |

Upon completion of construction sign the statement listed below and forward to the appropriate field representative

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155 SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT: Robert Lee — DATE: 11-25-91

| 156 LOCATION CODE | 157 FACILITY ID NO | 158 U.T.M. (E) | 159 U.T.M. (N) | 160 SIC NUMBER | 161 DATE APPL RECEIVED | 162 DATE APPL REVIEWED | 163 REVIEWED BY |
|---|---|---|---|---|---|---|---|
| | | | | | / / | / / | |

**PERMIT TO CONSTRUCT**

164 DATE ISSUED / 165 EXPIRATION DATE / 166 SIGNATURE OF APPROVAL / 167 FEE

168
1 DEVIATION FROM APPROVED APPLICATION SHALL VOID THIS PERMIT
2 THIS IS NOT A CERTIFICATE TO OPERATE
3 TESTS AND/OR A DETAILED EMISSION INVENTORY MAY BE REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE TO OPERATE

**CERTIFICATE TO OPERATE**

169 DATE ISSUED / 170 EXPIRATION DATE / 171 SIGNATURE OF APPROVAL / 172 FEE

173
1 ☐ INSPECTED BY ____ DATE ____
2 ☐ INSPECTION DISCLOSED DIFFERENCES AS BUILT VS PERMIT, CHANGES INDICATED ON FORM
3 ☐ ISSUE CERTIFICATE TO OPERATE FOR SOURCE AS BUILT
4 ☐ APPLICATION FOR C/O DENIED ____ DATE ____ INITIALED

174 SPECIAL CONDITIONS:

| OP | LOCATION | FACILITY | EMISSION POINT | UNIT I.D. |
|---|---|---|---|---|
| | 28220018 | 28 | 00051 | I01 |

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## UNIT OR PROCESS DATA

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

PLEASE PRINT OR TYPE

**SECTION H**

| 175 EMISSION POINT I D | 176 UNIT I D |
|---|---|
| 00510 | 1 |

| 177 SOURCE CODE | 178 HRS/DAY | 179 DAYS/YR | 180 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|
| 1309 | 1 | 231 | 25 | 25 | 25 | 25 |

**SECTION I**

181 DESCRIBE PROCESS OR UNIT

This unit provides ventilation for a spray booth used for testing powders.

**SECTION J**

| EMISSION CONTROL EQUIPMENT I D | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED | USEFUL LIFE |
|---|---|---|---|---|---|
| 182 | 183 99 | 184 ~~Farr Dust Collector, 401~~ | 185 | 186 / | 187 20 |
| 188 | 189 | 190 | 191 | 192 / | 193 |

**SECTION K**

CALCULATIONS

SEE ATTACHED CALCULATIONS

PAGE 1 OF 2

J-FORM ATTACHED

**SECTION L**

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS ACTUAL | UNIT | HOW DET. | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | IO* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 194 Nickel | 195 0744-0-02-0 | 196 | 197 | 198 0.098 | 199 1 | 200 6 | 201 ~~95~~ 0 | 202 0.98 | 203 0.98 | 204 226 | 205 0 |
| 206 Cobalt | 207 0744-0-48-4 | 208 | 209 | 210 0.114 | 211 1 | 212 6 | 213 ~~95~~ 0 | 214 0.114 | 215 0.114 | 216 26.33 | 217 0 |
| 218 Molybdenum | 219 0743-9-98-7 | 220 | 221 | 222 0.86 | 223 1 | 224 6 | 225 ~~95~~ 0 | 226 0.86 | 227 0.86 | 228 1986 | 229 0 |
| 230 Titanium Dioxide | 231 1346-3-67-7 | 232 | 233 | 234 0.22 | 235 1 | 236 6 | 237 ~~95~~ 0 | 238 0.22 | 239 0.22 | 240 50.82 | 241 0 |
| 242 Chromium | 243 0744-0-47-3 | 244 | 245 | 246 0.08 | 247 1 | 248 6 | 249 ~~95~~ 0 | 250 0.08 | 251 0.08 | 252 18.5 | 253 0 |
| 254 Boron Nitride | 255 10043-11-5 | 256 | 257 | 258 0.01 | 259 1 | 260 6 | 261 ~~95~~ 0 | 262 0.01 | 263 0.01 | 264 2.31 | 265 0 |

| OP | LOCATION | FACILITY | EMISSION POINT | UNIT I.D |
|---|---|---|---|---|
| | 28220 | 0182 | 00051 | 301 |

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## UNIT OR PROCESS DATA

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

PLEASE PRINT OR TYPE

| SEC. H | 175 EMISSION POINT I D | 176 UNIT I D |
|---|---|---|
| | 0 5 1 | 0 A |

| 177 SOURCE CODE | 178 HRS/DAY | 179 DAYS/YR | 180 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|
| | 1 | 231 | 25 | 25 | 25 | 25 |

| SEC. I | 181 DESCRIBE PROCESS OR UNIT | | |
|---|---|---|---|
| | | 1 | 2 |
| | | 3 Continued | 4 |
| | | 5 | 6 |
| | | 7 | 8 |

| SEC. J | EMISSION CONTROL EQUIPMENT I D | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED | USEFUL LIFE |
|---|---|---|---|---|---|---|
| | 182 | 183 | 184 Continued | 185 | 186 / | 187 |
| | 188 | 189 | 190 | 191 | 192 / | 193 |

SECTION K

CALCULATIONS

Continued

Page 2 of 2

00051-J-01 J-FORM

SECTION L

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS ACTUAL | UNIT | HOW DET | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | $10^x$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 194 Tungsten Carbide | 195 12070-121 | 196 | 197 | 198 0.28 | 199 1 | 200 6 | 201 0 | 202 0.28 | 203 0.28 | 204 64.7 | 205 0 |
| 206 Copper | 207 07440-508 | 208 | 209 | 210 0.08 | 211 1 | 212 6 | 213 0 | 214 0.08 | 215 0.08 | 216 18.5 | 217 0 |
| 218 Chromium Oxide (CRIII) | 219 01308-389 | 220 | 221 | 222 0.18 | 223 1 | 224 6 | 225 0 | 226 0.18 | 227 0.18 | 228 41.58 | 229 0 |
| 230 Iron | 231 07439-89-6 | 232 | 233 | 234 0.10 | 235 1 | 236 6 | 237 0 | 238 0.10 | 239 0.10 | 240 23.1 | 241 0 |
| 242 Aluminum Oxide | 243 01344-28-1 | 244 | 245 | 246 0.16 | 247 1 | 248 6 | 249 0 | 250 0.16 | 251 0.16 | 252 36.96 | 253 0 |
| 254 Other Particulate | 255 NY075-00-0 | 256 | 257 | 258 0.46 | 259 1 | 260 6 | 261 0 | 262 4.6 | 263 0.46 | 264 1062.6 | 265 0 |

| OP | LOCATION | FACILITY | EMISSION POINT | UNIT I.D. |
|---|---|---|---|---|
| | 28 32 90 | 18 28 | 00 05 | 1 02 |

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## UNIT OR PROCESS DATA

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

PLEASE PRINT OR TYPE

SEC. H

| 175 EMISSION POINT I.D. | 176 UNIT I.D. |
|---|---|
| 05 | 10 |

| 177 SOURCE CODE | 178 HRS/DAY | 179 DAYS/YR | 180 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|
| 1308 | 2.5 | 231 | 25 | 25 | 25 | 25 |

SEC. I

| 181 DESCRIBE PROCESS OR UNIT | | |
|---|---|---|
| | 1 | This unit provides ventilation for a spray booth used |
| | 3 | for testing powders. |
| | 5. | |
| | 7 | |
| | 2 | |
| | 4. | |
| | 6. | |
| | 8. | |

SEC. J

| EMISSION CONTROL EQUIPMENT I.D. | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED | USEFUL LIFE |
|---|---|---|---|---|---|
| 182 | 183 99 | 184 ~~Farr Dust Collector, 40L~~ | 185 | 186 / | 187 20 |
| 188 | 189 | 190 | 191 | 192 / | 193 |

SECTION K

CALCULATIONS

J-FORM ATTACHED

SECTION L

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS ACTUAL | UNIT | HOW OFT | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | $10^3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 194 Nickel | 195 0 7 4 4 0-0 2 0 | 196 | 197 | 198 .98 | 199 1 | 200 6 | 201 0 | 202 .98 | 203 0.98 | 204 5.66 | 205 0 |
| 206 Cobalt | 207 0 7 4 4 0-4 8 4 | 208 | 209 | 210 .114 | 211 1 | 212 6 | 213 0 | 214 0.114 | 215 0.114 | 216 .66 | 217 0 |
| 218 Molybdenum | 219 0 7 4 3 9-9 8 7 | 220 | 221 | 222 .86 | 223 1 | 224 6 | 225 0 | 226 0.86 | 227 0.86 | 228 4.97 | 229 0 |
| 230 Titanium Dioxide | 231 1 3 4 6 3-6 7 7 | 232 | 233 | 234 0.22 | 235 1 | 236 6 | 237 0 | 238 0.22 | 239 0.22 | 240 1.27 | 241 0 |
| 242 Chromium | 243 0 7 4 4 0-4 7 3 | 244 | 245 | 246 0.08 | 247 1 | 248 6 | 249 0 | 250 0.08 | 251 0.08 | 252 .46 | 253 0 |
| 254 Boron Nitride | 255 10043-11-5 | 256 | 257 | 258 0.01 | 259 1 | 260 6 | 261 0 | 262 0.01 | 263 0.01 | 264 .58 | 265 0 |

| OP | LOCATION | FACILITY | EMISSION POINT | UNIT I.D. |
|---|---|---|---|---|
| | 2 8 2 2 0 0 1 5 2 8 | 0 0 0 | 5 1 | J 0 2 |

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# PROCESS, EXHAUST OR VENTILATION SYSTEM
## UNIT OR PROCESS DATA

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

PLEASE PRINT OR TYPE

| SEC. H | 175 EMISSION POINT I D | 176 UNIT I D |
|---|---|---|
| | 0 5 1 | 0 2 |

| 177 SOURCE CODE | 178 HRS/DAY | 179 DAYS/YR | 180 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|
| | 2.5 | 231 | 25 | 25 | 25 | 25 |

SEC. I

| 181 DESCRIBE PROCESS OR UNIT | | |
|---|---|---|
| | 1 | 2 |
| | 3. CONTINUATION | 4. |
| | 5. | 6 |
| | 7. | 8. |

SEC. J

| EMISSION CONTROL EQUIPMENT I D | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED | USEFUL LIFE |
|---|---|---|---|---|---|
| 182 | 183 | 184 CONTINUATION | 185 | 186 / | 187 |
| 188 | 189 | 190 | 191 | 192 / | 193 |

SECTION K

CALCULATIONS

CONTINUATION 00051J02 J-FORM

SECTION L

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS ACTUAL | UNIT | HOW DET | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | 10^A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 194 Tungsten Carbide | 195 12070-121 | 196 | 197 | 198 0.28 | 199 1 | 200 6 | 201 0 | 202 0.28 | 203 0.28 | 204 162 | 205 0 |
| 206 Copper | 207 07440-508 | 208 | 209 | 210 0.08 | 211 1 | 212 6 | 213 0 | 214 0.08 | 215 0.08 | 216 46 | 217 0 |
| 218 Chromium Oxide (CRIII) | 219 01308-389 | 220 | 221 | 222 0.18 | 223 1 | 224 6 | 225 0 | 226 0.18 | 227 0.18 | 228 104 | 229 0 |
| 230 Iron | 231 07439-89-6 | 232 | 233 | 234 0.10 | 235 1 | 236 6 | 237 0 | 238 0.10 | 239 0.10 | 240 58 | 241 0 |
| 242 Aluminum Oxide | 243 01344-281 | 244 | 245 | 246 0.16 | 247 1 | 248 6 | 249 0 | 250 0.16 | 251 0.16 | 252 92 | 253 0 |
| 254 Other Particulate | 255 NY075-000 | 256 | 257 | 258 4.6 | 259 1 | 260 6 | 261 0 | 262 4.6 | 263 4.6 | 264 2657 | 265 |

| OP | LOCATION | FACILITY | EMISSION POINT | UNIT I.D |
|---|---|---|---|---|
| | 28220 | 1828 | 00051 | I03 |

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## UNIT OR PROCESS DATA

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

PLEASE PRINT OR TYPE

**SECTION H**

| 175 EMISSION POINT I.D | 176 UNIT I.D |
|---|---|
| 0510 | 3 |

| 177 SOURCE CODE | 178 HRS/DAY | 179 DAYS/YR | 180 % OPERATION BY SEASON | | | |
|---|---|---|---|---|---|---|
| | | | Winter | Spring | Summer | Fall |
| 1308 | 2.5 | 231 | 25 | 25 | 25 | 25 |

**SECTION I**

181 DESCRIBE PROCESS OR UNIT

This unit provides ventilation for a spray booth used for testing powders.

**SECTION J**

| EMISSION CONTROL EQUIPMENT I.D | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED | USEFUL LIFE |
|---|---|---|---|---|---|
| 182 | 183 99 | 184 ~~Farr Dust Collector, 40I~~ | 185 | 186 / | 187 20 |
| 188 | 189 | 190 | 191 | 192 / | 193 |

**SECTION K**

CALCULATIONS

J-FORM ATTACHED

J-FORM

**SECTION L**

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS ACTUAL | UNIT | HOW DET. | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | HOURLY EMISSIONS (LBS/HR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | ANNUAL EMISSIONS (LBS/YR) $10^3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 194 Nickel | 195 07440-02-0 | 196 | 197 | 198 .98 | 199 1 | 200 6 | 201 0 | 202 .98 | 203 0.98 | 204 566 | 205 0 |
| 206 Cobalt | 207 07440-48-4 | 208 | 209 | 210 0.114 | 211 1 | 212 6 | 213 0 | 214 0.114 | 215 0.114 | 216 66 | 217 0 |
| 218 Molybdenum | 219 07439-98-7 | 220 | 221 | 222 .86 | 223 1 | 224 6 | 225 0 | 226 0.86 | 227 0.86 | 228 497 | 229 0 |
| 230 Titanium Dioxide | 231 13463-67-7 | 232 | 233 | 234 .22 | 235 1 | 236 6 | 237 0 | 238 0.22 | 239 0.22 | 240 127 | 241 0 |
| 242 Chromium | 243 07440-47-3 | 244 | 245 | 246 .08 | 247 1 | 248 6 | 249 0 | 250 0.08 | 251 0.08 | 252 46 | 253 0 |
| 254 Boron Nitride | 255 10043-11-5 | 256 | 257 | 258 0.01 | 259 1 | 260 6 | 261 0 | 262 0.01 | 263 0.01 | 264 52 | 265 0 |

| OP | LOCATION | FACILITY | EMISSION POINT | UNIT I.D |
|---|---|---|---|---|
| | 29229 | 8128 | 00051 | I03 |

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# PROCESS, EXHAUST OR VENTILATION SYSTEM

## UNIT OR PROCESS DATA

COPIES
WHITE - ORIGINAL
GREEN - DIVISION OF AIR
WHITE - REGIONAL OFFICE
WHITE - FIELD REP
YELLOW - APPLICANT

PLEASE PRINT OR TYPE

**SEC. H**

| 175 EMISSION POINT I D | 176 UNIT I D |
|---|---|
| 00051 | 03 |

| 177 SOURCE CODE | 178 HRS/DAY | 179 DAYS/YR | 180 % OPERATION BY SEASON Winter | Spring | Summer | Fall |
|---|---|---|---|---|---|---|
| | 2.5 | 231 | 25 | 25 | 25 | 25 |

**SEC. I**

| 181 DESCRIBE PROCESS OR UNIT | | |
|---|---|---|
| | 1 | 2 |
| CONTINUED | 3 | 4 |
| | 5 | 6 |
| | 7 | 8 |

**SEC. J**

| EMISSION CONTROL EQUIPMENT I D | CONTROL TYPE | MANUFACTURER'S NAME AND MODEL NUMBER | DISPOSAL METHOD | DATE INSTALLED | USEFUL LIFE |
|---|---|---|---|---|---|
| 182 | 183 | 184 CONTINUED | 185 | 186 / | 187 |
| 188 | 189 | 190 | 191 | 192 / | 193 |

**SECTION K**

CALCULATIONS

00051J03 J-FORM

**SECTION L**

| CONTAMINANT NAME | CAS NUMBER | INPUT OR PRODUCTION | UNIT | EMISSIONS ACTUAL | UNIT | HOW DET | % CONTROL EFFICIENCY | HOURLY EMISSIONS (LBS/HR) ERP | ACTUAL | ANNUAL EMISSIONS (LBS/YR) ACTUAL | $10^3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 |
| Tungsten Carbide | 12070-121 | | | .28 | 1 | 6 | 0 | 0.28 | .28 | 162 | 0 |
| 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 |
| Copper | 07440-508 | | | .08 | 1 | 6 | 0 | 0.08 | .08 | 46. | 0 |
| 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 |
| Chromium Oxide (CRIII) | 01308-389 | | | .18 | 1 | 6 | 0 | 0.18 | .18 | .104 | 0 |
| 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 |
| Iron | 07439-896 | | | C .10 | 1 | 6 | 0. | 0.10 | .10 | 58 | 0 |
| 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 |
| Aluminum Oxide | 01344-281 | | | C .16 | 1 | 6 | 0 | 0.16 | C .16 | 92. | 0 |
| 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 |
| Other Particulate | NY075-00-0 | | | C 4.6 | 1 | 6 | 0 | 4.6 | C 4.6 | 26565 | 0 |

# METCOSEAL ST-1

## (THINNER)

**A SPECIAL THINNER USED WITH FINISHING TREATMENT OF THERMAL SPRAYED COATINGS.**

**INSTRUCTIONS:**
A thinner for use with certain METCOSEAL Coatings used in SULZER METCO Systems of Corrosion Prevention.

See SULZER METCO System Specifications and Instructions for full data on use.

**NOTE:** There are several METCOSEAL Thinners. Use this thinner where specifically called for on the METCOSEAL Label.

CONTENTS 1 GALLON U.S.

**HAZARD NOTICE:** This material is for the thermal spraying process. Consult the SULZER METCO Instruction Manual, the Material Safety Data Sheet, and applicable Federal and local jurisdiction safety and health regulations before utilizing this product. This product should not be ingested; inhalation and skin contact should be avoided. Local ventilation, skin and respiratory protection should be used during handling. Good housekeeping and personal hygiene should be practiced. Some individuals may show unusual sensitivity to exposure. Failure to observe proper practices may result in health hazards.

**FOR EMERGENCY ASSISTANCE CALL**
**CHEMTREC - DAY OR NIGHT**
**1-800-424-9300**

**WARNING FLAMMABLE. HARMFUL IF INHALED. HARMFUL OR FATAL IF SWALLOWED. USE ONLY WITH ADEQUATE VENTILATION. FOR INDUSTRIAL USE ONLY.**

**Specific Effects Of Overexposure:**
**Methyl Isobutyl Ketone:** Hazard by inhalation, ingestion, skin and eye contact. Inhalation and ingestion may cause irritation to the mucous membranes, headache, narcosis and possible coma. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Toluene:** Hazard by inhalation, ingestion, skin absorption, skin and eye contact. Inhalation, ingestion and skin absorption may cause fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, lacrimation, nervousness, muscle fatigue, insomnia, anemia leucopenia and enlarged liver may be found in rare cases. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Diisobutyl Ketone:** Hazard by inhalation, skin and eye contact. Inhalation may cause nose and throat irritation, headache and dizziness. Narcotic in high concentrations. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Isopropyl Alcohol Anhydrous:** Hazard by inhalation, skin and eye contact. Inhalation may cause irritation to the eyes and mucous membranes, drowsiness, dizziness and headache. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Target Organs:** Respiratory system, central nervous system, liver, kidney, skin and eyes.

**In Case of Fire:**
Extinguishing Media: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or foam).
Unusual Fire and Explosion Hazards: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, open flames, or other sources of ignition. Closed containers may explode if exposed to extreme heat. Do not apply to hot surfaces.
Special Fire Fighting Procedures: Water spray may be ineffective. Water may be used to cool containers to prevent pressure buildup and possible explosion when exposed to extreme heat. If water is used, fog nozzles are preferable.
**In Case of Spill or Leak:**
Remove all sources of ignition (flames, hot surfaces, electrical or frictional sparks). Avoid breathing vapors. Ventilate area. Remove with inert absorbent and non-sparking tools. IMPORTANT: Hazardous product residue may be present after contents have been removed. Do not reuse empty package without commercial cleaning or reconditioning.
**Special Protection Information:**
Adequate local/general ventilation should be provided when using this product. Appropriate respiratory, skin, eye and hand protection should be utilized when using this product.
**Special Precautions:**
Precautions to be Taken in Handling and Storing: Store away from incompatibles. Keep containers closed when not in use. Do not store in open, unlabeled or mislabeled containers. Do not transfer contents to bottles or other unlabeled containers. Store in a cool and dry area. Do not use in poorly ventilated or confined areas. Do not store above 120°F.
Other Precautions: Containers should be grounded when pouring. Avoid free fall of liquid in excess of a few inches. DO NOT FLAME CUT, BRAZE OR WELD EMPTY CONTAINERS. KEEP CONTAINERS CLOSED WHEN NOT IN USE.
Waste Disposal Method: Dispose of the chemical materials and/or their containers in accordance with federal, state or local laws/regulations regarding disposal.

**USING THE NATIONAL PAINT AND COATINGS ASSOCIATION'S HAZARDOUS MATERIALS IDENTIFICATION SYSTEM, THIS PRODUCT'S HAZARD CLASSIFICATION IS:**

| | |
|---|---|
| HEALTH | ? 3 |
| FLAMMABILITY | ? 3 |
| REACTIVITY | ? 0 |
| PERSONAL PROTECTION | See the MSDS for proper personal protective equipment. |

Flash Point: 40°F
UN1263 PAINT

**WARNING:** This product contains a chemical known to the STATE OF CALIFORNIA to cause cancer and/or reproductive harm.

*While this information is furnished in good faith, no guaranty is made as to accuracy. This material is for the Thermal Spraying Process, and relevant instructions should be consulted before use. The user assumes all risks in connection with the use of this material. SULZER METCO shall in no event be liable for special, incidental or consequential damages in connection with this information, or for any damage or injury caused by this material if used for any other purpose than the Thermal Spray Process, or if proper safety and health practices are not followed.*

TRI FACILITY ID: 11590PRKNL1101P

PERKIN-ELMER CORP. METCO DIV.
1101 PROSPECT AVE.
WESTBURY, NY 11590

Dear Toxic Release Inventory (EPA Form R) Reporter:

Attached is a report, produced by EPA, which lists the chemical identities and corresponding release values for the Form R's EPA received from the facility listed above for Toxic Release Inventory (TRI) Reporting Year 1990 (RY90).

It is EPA's intention to represent all data reported by your facility as accurately as possible. In order to do this, EPA has implemented a variety of quality control procedures. We believe our data entry is of good quality. However, as a final quality control measure, we ask that you verify the critical release value information listed on this report against your Form R files. If you find any data entry errors, please let us know by following these simple instructions:

- On the attached report, use a red pen to mark through the erroneous value, and write the corrected value next to it.

- Return the corrected report to:

  The EPCRA Reporting Center
  P.O. Box 23779
  Washington, DC 20026-3779
  Attn: TRI 100%

We request that you do this within 21 calendar days of receipt, so that we may correct your data before we make it publicly available in the Spring, 1992. If you do not find any errors in this report, no response is necessary.

Please DO NOT use this report to make changes to release values or any other data which you reported incorrectly. Those changes should be submitted to EPA by making a photocopy of your Form R, writing 'REVISION' in red ink in the space labeled 'For Your Optional Use Only' on page one of the form, marking through the original data and writing in the revised data in red ink. The certification signature block on the revised form must contain an original signature. Mark through the photocopied signature and re-sign the revised form. Return the revised form to the address above. The attention line on the envelope should read: 'Attn: RY90 Revision'.

TRI FACILITY ID: 11590PRKNL1101P

PERKIN-ELMER CORP. METCO DIV.
1101 PROSPECT AVE.
WESTBURY, NY 11590

# R E L E A S E  V A L U E  R E P O R T

| DOCUMENT CONTROL # (FOR EPA REFERENCE) | CHEMICAL | CAS NUMBER | RELEASE ESTIMATES IN POUNDS | |
|---|---|---|---|---|
| 13-90-04557601-6-NY | CHROMIUM | 007440-47-3 | FUG. AIR | NA |
| | | | STACK AIR | NA |
| | | | WATER A | NA |
| | | | WATER B | NA |
| | | | WATER C | NA |
| | | | U. INJ. | NA |
| | | | LAND FILL | NA |
| | | | LAND TREAT | NA |
| | | | LAND SURF. | NA |
| | | | LAND OTHER | NA |
| | | | POTW 1 | NA |
| | | | OFF SITE 1 | NA |
| | | | OFF SITE 2 | NA |
| | | | OFF SITE 3 | NA |
| 13-90-04557602-8-NY | COPPER | 007440-50-8 | FUG. AIR | NA |
| | | | STACK AIR | NA |
| | | | WATER A | NA |
| | | | WATER B | NA |
| | | | WATER C | NA |
| | | | U. INJ. | NA |
| | | | LAND FILL | NA |
| | | | LAND TREAT | NA |
| | | | LAND SURF. | NA |
| | | | LAND OTHER | NA |
| | | | POTW 1 | NA |
| | | | OFF SITE 1 | NA |
| | | | OFF SITE 2 | NA |
| | | | OFF SITE 3 | NA |
| 13-90-04557603-0-NY | COBALT | 007440-48-4 | FUG. AIR | NA |
| | | | STACK AIR | NA |
| | | | WATER A | NA |
| | | | WATER B | NA |
| | | | WATER C | NA |
| | | | U. INJ. | NA |
| | | | LAND FILL | NA |
| | | | LAND TREAT | NA |
| | | | LAND SURF. | NA |
| | | | LAND OTHER | NA |
| | | | POTW 1 | NA |
| | | | OFF SITE 1 | NA |
| | | | OFF SITE 2 | NA |
| | | | OFF SITE 3 | NA |
| 13-90-04557604-2-NY | NICKEL | 007440-02-0 | FUG. AIR | NA |
| | | | STACK AIR | NA |
| | | | WATER A | NA |

TRI FACILITY ID: 11590PRKNL1101P

PERKIN-ELMER CORP. METCO DIV.
1101 PROSPECT AVE.
WESTBURY, NY 11590

# R E L E A S E  V A L U E  R E P O R T

| DOCUMENT CONTROL # (FOR EPA REFERENCE) | CHEMICAL | CAS NUMBER | RELEASE ESTIMATES IN POUNDS | |
|---|---|---|---|---|
| 13-90-04557604-2-NY | NICKEL | 007440-02-0 | WATER B | NA |
| | | | WATER C | NA |
| | | | U. INJ. | NA |
| | | | LAND FILL | NA |
| | | | LAND TREAT | NA |
| | | | LAND SURF. | NA |
| | | | LAND OTHER | NA |
| | | | POTW 1 | NA |
| | | | OFF SITE 1 | NA |
| | | | OFF SITE 2 | NA |
| | | | OFF SITE 3 | NA |
| 13-90-04557605-5-NY | ALUMINUM (FUME OR DU | 007429-90-5 | FUG. AIR | NA |
| | | | STACK AIR | NA |
| | | | WATER A | NA |
| | | | WATER B | NA |
| | | | WATER C | NA |
| | | | U. INJ. | NA |
| | | | LAND FILL | NA |
| | | | LAND TREAT | NA |
| | | | LAND SURF. | NA |
| | | | LAND OTHER | NA |
| | | | POTW 1 | NA |
| | | | OFF SITE 1 | NA |
| | | | OFF SITE 2 | NA |
| | | | OFF SITE 3 | NA |

Please keep these facts in mind when reviewing the accuracy and completeness of this report:

1) The report lists only those Form R's which have passed our internal data quality checks. If one or more forms submitted by your facility is not listed here, you will be receiving additional correspondence from us soon.

2) The data represented here may not reflect any voluntary revisions submitted by your facility, if those revisions were not processed by the time we produced this report.

3) We have applied certain naming conventions to the way in which your facility's name is represented. For example, we always list the main company name first, followed by the division name. In addition, we use standard abbreviations for certain words such as Corporation (Corp.) and Highway (Hwy.). Please correct this information only if the actual data is incorrect.

If you have any questions about the information on this report, please call the EPCRA Reporting Center:

202-488-1501

Let the receptionist know that you are calling about the 'TRI 100% Industry Review'. The receptionist will connect you with a person who can answer your questions.

Thank you for your efforts in helping us to make Toxic Release Inventory data as accurate as possible.

Steven D. Newburg-Rinn

Steven D. Newburg-Rinn, Chief
Public Data Branch
Information Management Division
Office of Toxic Substances
Office of Pesticides and Toxic Substances
U.S. Environmental Protection Agency

# METCO PERKIN ELMER

**Material Safety Data Sheet**

METCO PERKIN-ELMER
1101 PROSPECT AVENUE
P.O. BOX 1006
WESTBURY, NEW YORK 11590-0201
516-334-1300
EMERGENCY CONTACT CHEMTREC 800-424-9300
CALLS FROM OUTSIDE THE US 202-483-7616

**Product:** METCO SPRASTEEL 80, 80 AW

**MSDS No:** METCO / 50-387
**Revision:** 2
**Date:** August 22, 1991

## SECTION I. MATERIAL IDENTIFICATION

**Trade/Material Name:** METCO SPRASTEEL 80, 80 AW

**Description:** Thermal Spray Metallic Wire

**Other Designations:** CARBON STEEL WIRE

Original Date of Issue: September 7, 1987

## SECTION II. INGREDIENTS AND HAZARDS

| Ingredient Name: | CAS Number: | Percent: | Exposure Limits: |
|---|---|---|---|
| Iron | 7439-89-6 | 98.5 % | OSHA PEL: 10 mg/m$^3$ ACGIH TLV: 5 mg/m$^3$* |

* As Iron Oxide

## SECTION III. PHYSICAL DATA

**Appearance & Odor:** Wire; No Odor.

**Boiling point:** N/A
**Vapor pressure:** N/A
**Water solubility (%):** Neg.
**Vapor density (air=1):** N/A
**pH:** N/A
**Evaporation rate:** N/A
**Specific gravity ($H_2O$=1):** 7.8
**Melting point:** 2800-2850°F
**% volatile by volume:** N/A
**Molecular weight:** N/A

## SECTION IV. FIRE AND EXPLOSION DATA

**Flash Point (method):** None **Limits: LEL %:** N/A **UEL %:** N/A

**Extinguishing Media:** Use Class D Fire Extinguisher.

**Unusual fire or explosion hazards:** Moderate fire hazard in the form of dust when exposed to flame.

**Special fire-fighting procedures:** Treat as a metallic fire.

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## SECTION V. REACTIVITY DATA

Material is stable Hazardous polymerization will not occur

**Chemical incompatibilities:** Oxidizers

**Hazardous decomposition Products:** Ozone and nitric oxide are formed by plasma flame (independent of powder).

## SECTION VI. HEALTH HAZARD INFORMATION

**Summary of risks:**

IRON: Hazarrd by inhalation. Inhalation may cause siderosis (benign pneumoconiosis).

**Medical conditions which may be aggravated by contact:** Consult a physician.

**Target organs:** Lungs.

**Primary entry route(s):** Inhalation

**Signs & symptoms of overexposure:**

**Eye contact:** Irritation.

**Skin contact:** Dermatitis.

**Inhalation:** Respiratory irritation.

**Ingestion:** Possible irritation.

**First aid:**

**Eye contact:** Flush eye with water. If irritation persists, consult a physician.

**Skin contact:** Wash with soap and water.

**Inhalation:** Expose to fresh air. Consult a physician if irritation or respiratory distress persists.

**Ingestion:** Consult a physician.

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## SECTION VII. SPILL, LEAK AND DISPOSAL PROCEDURES

**Spill / Leak procedures:** Not applicable to wire.

**Waste management / Disposal:** Empty product containers, product waste, and cleaning media should be stored and disposed of according to the appropriate local, state, and federal regulatory guidelines.

## SECTION VIII. SPECIAL PROTECTION INFORMATION

**Personal protective equipment:**

**Goggles:** The following lens shades are recommended for the process indicated. Combustion spraying shade #5, arc spraying shade #9. Goggles may be appropriate to avoid eye irritation during other phases of product handling.

**Gloves:** Aluminized gloves are to be worn during arc spraying. Rubber or other appropriate gloves may be worn as necessary during other phases of product handling to avoid contact with the skin.

**Respirator:** A respirator approved by NIOSH for dust/fumes/mists should be worn at all times during the thermal spray process to protect operator from dust and fumes. Respirators may also be worn when product handling generates dust.

**Other:** Ear protection must be worn when the operator is subjected to excessive noise levels (refer to the appropriate regulatory guidelines). An aluminized apron is to be worn during arc spraying.

**Workplace considerations:**

**Ventilation:** Product should be used with the appropriate local exhaust ventilation provided.

**Safety stations:**
Eye wash station is recommended.

**Other:** Wash facilitites are recommended.

## SECTION IX. SPECIAL PRECAUTIONS

**Storage segregation:** Store away from incompatibles.

**Special handling / storage:** Store product containers in a well-ventilated, clean, cool, and dry area. Store in a manner to minimize punctures and breakage of containers.

**Other precautions:** Avoid ingestion, inhalation and excessive skin contact. Eye protection is recommended when handling wire.

 SPECIAL PRECAUTIONS continues on page 4 

# METCO PERKIN ELMER

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SPECIAL PRECAUTIONS continued from page 3

**Prepared/revised by:** METCO

August 22, 1991

THE INFORMATION CONTAINED HEREIN IS BASED ON AVAILABLE DATA AND TESTS AND IS BELIEVED TO BE ACCURATE. IT IS PREPARED SOLEY FOR YOUR CONSIDERATION AND VERIFICATION SINCE CONDITIONS OF USE, STORAGE AND HANDLING MAY VARY.

M&M PC

**M&M Protection Consultants**

A Service of Marsh & McLennan

# Key Elements of Emergency Response Planning

*A technical paper by*

**Robert Frenson**

M&MPC New York

**Consultants to Management in Hazard Control**

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# Introduction

*A fork lift driver swerves to avoid an employee who has stumbled into the aisle. He slams on the brakes and skids into several drums of a chlorinated solvent which rupture. The solvent pours out and flows across the floor, heading for the floor drains which are tied into the sanitary sewer.*

*Three workers on a movable lift platform are servicing overhead lights. The lift becomes unbalanced and the workers fall to the hard floor below—severely injuring all three. First aiders respond but the first aid station is equipped to handle only one serious case at a time.*

*A small fire begins in an overheated electrical panel and computer paper stored nearby catches on fire. A large amount of flammable liquid is used in the next department. Will someone respond in time to control the small blaze and prevent a more serious fire?*

In each of these hypothetical incidents, proper emergency response planning will help to minimize the consequences.

Disasters such as Flixborough and Bhopal have created apprehension in communities located near industrial plants. As manufacturing, new technology, and residential communities try to peacefully coexist, emergency response planning becomes more important. Emergency planning is also being addressed in the United States through the Superfund Amendments and Reauthorization Act, Title III (SARA).

To develop effective emergency response plans, one must understand the key elements of emergency response planning.

# Key Elements of Emergency Response Planning

**Purpose**

The purpose of emergency response planning is to protect lives, property, the environment, and the assets of the corporation, and to ensure the rapid recovery of the business after an emergency.

By analyzing expected emergencies and developing effective responses for them, one is better able to cope with the unexpected or unforeseeable. Such plans do not need to address normal daily activities; these should be considered routine maintenance items.

**Emergency Analysis**

The first step in developing a plan is to categorize emergencies by type. Then each type of emergency is analyzed and a suitable response developed.

Some plant areas or operations may require special responses. The research required to develop a suitable response may suggest changes that eliminate or reduce hazards.

The basic types of emergency that nearly all facilities can expect to face are:

**Fire or Explosion**

Combustibles can be found almost everywhere. How fast a fire spreads depends on several factors including the combustible load available. To stop the spread of fire, early detection and extinguishment are essential. If a fire gets out of control or an explosion is imminent, then evacuation must be immediate. The prompt response of a fire brigade, employees trained to use extinguishers, or a local fire department can help minimize the loss.

**Multiple and Severe Injuries**

Medical care facilities vary from plant to plant depending on the number of employees and the hazards associated with the operations. It is always possible to overload the treatment capacity of a site.

Assessment of the site's capabilities and coordination with local emergency services is necessary.

**Hazardous Materials Release**
Spills, leaks, and emissions of hazardous materials can affect employees, neighbors, and the environment. A significant release or threat of release of a toxic chemical may require community warnings or evacuation. Prompt response involving containment, isolation, or cleanup can help prevent a community exposure or environmental damage.

**Utility Outage**
The loss of power—electricity, steam, refrigeration, gas, etc.—will shut down operations. If processes involve exothermic reactions and cooling systems are lost, temperature and pressure may build up, causing an explosion. If a reaction involves applying heat or stirring to help mix chemicals, then the loss of these systems may damage the reactor vessels or equipment. When there are special shutdown procedures, the ability to provide backup power can help reduce the likelihood of an uncontrolled reaction or equipment damage.

**Geological and Meteorological Occurrences**
Hurricanes, tornadoes, earthquakes, floods, and other types of natural hazards can be devastating. Preplanning for such occurrences can include developing contacts with weather information systems and civil defense organizations, securing the facility before a storm strikes, and stocking food, water, and other supplies for persons that may be forced to stay on the premises until the danger has subsided.

**Bomb Threats**
These are potentially dangerous and normally disruptive situations. To secure the premises and resume operations requires quick action by the staff. Well-trained telephone operators are essential. Knowing what to do

when a threatening phone call is received requires training and practice.

**Civil Disturbances**
Riot, strike, terrorist activity, etc., may force a plant closing. Securing the premises and keeping out unwanted intruders will depend on the plant layout, perimeter fencing, security guards, and other factors. If prepared, management, supervisors, and select employees may be able to keep the facility operating.

## Response Planning

The functional responses, based on an emergency analysis, are determined for each individual location. Each risk should be evaluated separately. The likelihood of occurrence and the size of the expected loss need to be determined. Based on this information, an appropriate response can be developed or an operational change made to protect the company from the consequences of such an event.

As part of the evaluation exercise, it is often worthwhile to develop a worst case scenario. The worst case scenario assesses the consequences of the worst possible thing happening on site. The development of this concept usually leads to thorough engineering studies of a "what if" nature. This often helps in the practical application of the functional responses and responsibilities of key personnel. The more preplanning that is done, the better the chances are that a facility will successfully cope with an emergency situation.

## Personnel Responsibilities

Once the functional responses have been determined, it is then necessary to define the responsibilities of site personnel and to select personnel to fill these roles. Alternates must also be designated for those times when the primary responder is not on site.

### Emergency Coordinator

The emergency coordinator should be a member of management who is capable of making quick decisions and who has knowledge of processes, the facility, and surrounding areas. Prior training in emergency response is necessary. Since the emergency coordinator will be in charge of all emergency procedures, it is important to select a competent, qualified leader.

### Response Teams

Response teams consist of managers and specially trained employees who respond immediately to emergencies. Team members should be trained in accordance with the scope of the emergency plan. Depending on the number of possible emergencies, one or more teams may be necessary. A fire brigade, spill containment and clean-up team, and first aiders are examples.

### Supervisors

Supervisors will be responsible for the security and evacuation of their respective areas. They will account for employees and any contractors or visitors assigned to their area. Prior to leaving their areas, supervisors should initiate a thorough search. Upon reaching the designated reunion point, a head count should be taken and this information relayed to the emergency coordinator.

### Security Staff

Security staff, depending on their professional capabilities, may be assigned to various duties ranging from traffic control to first response.

### Communications Team

For a successful response, communication within the plant and to the outside world is

essential. Persons designated to coordinate communications will be responsible for notifying fire and police departments, notifying management if not on site, calling additional response personnel, and notifying appropriate regulatory agencies. A predetermined call list of names and telephone numbers will help in this task.

**Employees**

Employees are responsible for reporting emergency situations and following instructions for evacuation or other response.

## Preplanning with Emergency Services

It is essential to establish a good working relationship with police and fire departments and outside medical services. If these agencies have prior knowledge of your plant, its systems, chemicals, and hazards, they will be better able to assist you.

The local or state police will be needed if traffic must be diverted or a community evacuated. To prevent unnecessary injury to fire fighters, the fire department should be aware of your site's chemicals and storage practices. SARA requires providing local fire departments with this information. Certain hospitals or clinics may be better equipped than others to treat specific injuries. If transportation agencies such as railroads may affect access to your plant, they should also be considered in the preplanning process.

## Dealing with the Media

In an emergency, public relations must be considered. A plant spokesperson should be designated to coordinate and distribute information. The media should be given factual, timely information about the emergency. The media can offer an extremely valuable service by providing information to the community within moments of an emergency. Radio and television are capable of running emergency broadcasts to alert

residents near the plant. How to make the best use of their services should be considered in the planning process.

**Training**

Plant personnel must be trained to deliver prompt, reliable, and correct emergency responses. Every employee must be trained. Those assigned key responsibilities and their designated alternates will need both initial and periodic refresher training. All training efforts, exercises, and classes should be well documented. The amount of training depends on the level of hazard and emergency response activity. Fire brigades and spill clean-up teams must be given a specific amount of annual training. First aiders and CPR-trained persons will require refresher courses. Management, supervisors, and communications personnel will also require training.

Employees need to know basic information about alarm systems and evacuation procedures. Employee training can usually be covered in the initial orientation or by the supervisor.

Some important points to cover during training at all levels include:

- Responsibilities—What are my responsibilities during an emergency?
- Alarm systems—What does it sound like, what must I do when I hear an alarm?
- Emergency equipment—What equipment is necessary for my part of the response, how is it used?
- Evacuation procedures—How do I get myself out of the plant, what is the best exit route, do I have any other responsibilities during evacuation?
- Chemicals—What hazards do they present, how do I protect myself?

**Drills**

A drill should periodically test all elements of the response plan. The simulated emergency should test the alarm system, communications, response teams, and outside emergency services.

Large drills which involve several emergency function responses—fire with hazardous material release and personal injuries and outside assistance—are usually conducted once a year. The in-plant response team may hold more frequent training exercises.

To conduct an appropriate drill, the plant must stage an incident. Observers must be selected to critique the drill and take notes. Outside agency participation should be requested and a notice announcing the intent of a drill given to all employees. The drill is then conducted, from incident to final resolution, with all participants acting out their parts as if it were a real emergency. Using the observers' notes, a written critique is prepared. The critique should point out deficiencies and corrective measures should be developed to revise and improve the plan.

## Summary

Emergency response planning is an exercise that facility managers should consider beneficial. To be able to respond correctly to an emergency involves more than just luck. Preplanning exercises reduce the potential for disaster by reducing hazards in the workplace.

Published accounts of severe fires, explosions, or hazardous material releases show that locations which have developed emergency response plans, conducted training, and performed drills have been far more successful in controlling the emergency and saving lives.

The time and cost involved with preplanning is small in terms of the price associated with an uncontrolled disaster.

**A worldwide organization of consultants to management in hazard control.**

Serving clients in the following and many other areas:

- Hazards management evaluations
- Property protection
- Employee accident and injury prevention
- Product liability prevention
- Health care professional liability
- Business interruption studies
- Workplace ergonomics
- Computer security
- Environmental consulting
- Motor vehicle operations
- Gas and electric utilities consulting
- Hydrocarbon-chemical consulting
- Natural hazards exposure analysis

---


**Headquarters**
222 South Riverside Plaza
Chicago, Illinois 60606
312/648-6821

**Central Center**
222 South Riverside Plaza
Chicago, Illinois 60606
312/648-6050

**Eastern Center**
Three Parkway
Philadelphia, Pennsylvania 19102
215/963-2800

**New York Center**
1221 Avenue of the Americas
New York, New York 10020
212/997-5911

**Southern Center**
1300 San Jacinto Tower
2121 San Jacinto Street
Dallas, Texas 75201
214/979-9955

**Western Center**
3303 Wilshire Boulevard
Los Angeles, California 90010
213/736-7042

**Canadian Center**
One First Canadian Place
Post Office Box 58
Toronto, Ontario M5X 1G2
416/868-2771

**Australian Centre**
50 Berry Street
North Sydney 2060
New South Wales
(02) 929-7088

**New Zealand Centre**
1 Willis Street
Post Office Box 699
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New York State Department of Environmental Conservation
Pollution Prevention Unit, Room 298
50 Wolf Road, Albany, New York 12233-8010
Phone: (518) 457-2553 FAX: (518) 457-2570

John P. Cahill
Commissioner

New York State SARA-TRI Report Submission Notice
For 1997 Reporting Year

SORTKEY: 281200 Date SEP 25 1998

Contact Name Michael S. LYDON

Company / Organization Name SULZER METCO

Street 1101 Prospect Ave. City Westbury State NY Zip 11590

Telephone (516) 338-2337 Fax ..... E-mail : .....

X TRI reports (FORM R or A) for your facility for 1997 reporting year have been received and processed, and a copy of the Facility Report (data summary) has been attached for your review.

If you agree with the information in the Facility Report, no further action is required. If, however, you believe that there are discrepancies, please contact New York State TRI coordinator at the above address within 21 days of receipt of this notice.

☐ TRI reports (FORM R or A) for your facility for 1997 reporting year have been received and processed, with the following changes and a copy of the Facility Report (data summary) has been attached for your review.

_____

_____

If you agree with the changes and the data summary, no further action is required. If, however, you believe that the changes we made are incorrect and there are discrepancies in the data summary, please contact New York State TRI coordinator at the above address within 21 days of receipt of this notice.

☐ TRI reports (FORM R or A) for your facility for 1997 reporting year have been received but could not be processed for the following difficulties. Please refer to the back side of this notice for explanation of the codes checked and for action required by the facility.

Please send your response to or contact New York State TRI coordinator at the above address within 21 days of receipt of this notice.

(1) DM, (2) FM, (3)UM, (4) NC, (5) MP, (6) DE ( Data Error ) as described : _____

_____

☐ Other Submission Errors and Information as described below. Please respond within 21 days of receipt of this notice.
(1) NR, (2) ER, (3) NS, (4) AC ( Address Correction - no immediate response required )
Other _____

Attachments : (1) none, (2) STSG (State TRI Submission Guidance), (3) X Facility Report and (4) Other

New York State Department of Environmental Conservation
SARA Title III, Toxic Release Inventory Data, Facility Report
September 03, 1998



Site : SULZER METCO (US) INC.
1101 PROSPECT AVE.
WESTBURY, NY 11590
County: NASSAU
Sortkey : 281200

Public Contact : MICHAEL S. LYDON
Phone : (516) 338-2337
SIC Code : 3542
POTW Used : NASSAU COUNTY DPW-CEDAR CREEK WPCP
Receiving Waterbodies : ATLANTIC OCEAN

RCIS # :
EPA TRI # : 11590PRKNL1101P
Air Emmissions Permit # : 2822001828
RCRA # : 131318651
SPDES Permit # :

(R)-FORM R, (A)-FORM A

* PLEASE NOTE: This offsite data was not entered into DEC computer system for Form Rs received after 1992. The default is zero (0).

| CAS Number (Year)<br>Chemical Name<br><br>Max. Stored on Site (lbs.) | N040 (97),(A)<br>BARIUM COMPOUNDS<br><br>NA | N090 (97),(A)<br>CHROMIUM COMPOUNDS<br><br>NA | N096 (97),(A)<br>COBALT COMPOUNDS<br><br>NA | N100 (97),(A)<br>COPPER COMPOUNDS<br><br>NA | N495 (97),(A)<br>NICKEL COMPOUNDS<br><br>NA | N982 (97),(A)<br>ZINC COMPOUNDS<br><br>NA |
|---|---|---|---|---|---|---|
| RELEASES TO THE ENVIRONMENT | lbs./year | lbs./year | lbs./year | lbs./year | lbs./year | lbs./year |
| AIR EMISSIONS | | | | | | |
| Fugitive or Non Point... | | | | | | |
| Stack or Point..... | | | | | | |
| DISCHARGES TO WATER | | | | | | |
| Water 1..... | | | | | | |
| Water 2..... | | | | | | |
| Water 3..... | | | | | | |
| UNDERGROUND INJECTION..... | | | | | | |
| UG INJECTION TO CLASS 1 WELL. | | | | | | |
| UG INJECTION TO CLASS 2 WELL. | | | | | | |
| RELEASES TO LAND | | | | | | |
| On Site Landfill..... | | | | | | |
| On site RCRA Landfill.. | | | | | | |
| On site OTHER Landfill. | | | | | | |
| Application Farming..... | | | | | | |
| Surface Impoundment..... | | | | | | |
| Other Disposal..... | | | | | | |
| OFF SITE TRANSFERS IN WASTE | | | | | | |
| Discharge to POTW..... | | | | | | |
| In State Transfers * ... | | | | | | |
| Out of State Trans * ... | | | | | | |
| Env. Release (Section 8.8) | | | | | | |

Site : SULZER METCO (US) INC.
1101 PROSPECT AVE.
WESTBURY, NY 11590
County: NASSAU
Sortkey : 281200

Public Contact : MICHAEL S. LYDON
Phone : (516) 338-2337
SIC Code : 3542
POTW Used : NASSAU COUNTY DPW-CEDAR CREEK WPCP
Receiving Waterbodies : ATLANTIC OCEAN

RCIS # :
EPA TRI # : 11590PRKNL1101P
Air Emmissions Permit # : 2822001828
RCRA # : 131318651
SPDES Permit # :

(R)-FORM R, (A)-FORM A

* PLEASE NOTE: This offsite data was not entered into DEC computer system for Form Rs received after 1992. The default is zero (0).

| CAS Number (Year)<br>Chemical Name<br><br>Max. Stored on Site (lbs.) | 71556 (97),(A)<br>1,1,1-TRICHLOROETHANE<br><br>NA | 1330207 (97),(A)<br>XYLENE<br><br>NA | 7429905 (97),(A)<br>ALUMINUM (FUME OR DUST)<br><br>NA | 7664382 (97),(A)<br>PHOSPHORIC ACID (AS PO4)<br><br>NA | 7664393 (97),(A)<br>HYDROFLUORIC ACID (HYDROGEN FLUORIDE)<br><br>NA | 7664417 (97),(A)<br>AMMONIA<br><br>NA |
|---|---|---|---|---|---|---|
| RELEASES TO THE ENVIRONMENT | lbs./year | lbs./year | lbs./year | lbs./year | lbs./year | lbs./year |
| AIR EMISSIONS | | | | | | |
| Fugitive or Non Point... | | | | | | |
| Stack or Point..... | | | | | | |
| DISCHARGES TO WATER | | | | | | |
| Water 1..... | | | | | | |
| Water 2..... | | | | | | |
| Water 3..... | | | | | | |
| UNDERGROUND INJECTION..... | | | | | | |
| UG INJECTION TO CLASS 1 WELL. | | | | | | |
| UG INJECTION TO CLASS 2 WELL. | | | | | | |
| RELEASES TO LAND | | | | | | |
| On Site Landfill..... | | | | | | |
| On site RCRA Landfill.. | | | | | | |
| On site OTHER Landfill. | | | | | | |
| Application Farming..... | | | | | | |
| Surface Impoundment..... | | | | | | |
| Other Disposal..... | | | | | | |
| OFF SITE TRANSFERS IN WASTE | | | | | | |
| Discharge to POTW..... | | | | | | |
| In State Transfers * ... | | | | | | |
| Out of State Trans * ... | | | | | | |
| Env. Release (Section 8.8) | | | | | | |

Site : SULZER METCO (US) INC.
1101 PROSPECT AVE.
WESTBURY, NY 11590
County: NASSAU
Sortkey : 281200

Public Contact : MICHAEL S. LYDON
Phone : (516) 338-2337
SIC Code : 3542
POTW Used : NASSAU COUNTY DPW-CEDAR CREEK WPCP
Receiving Waterbodies : ATLANTIC OCEAN

RCIS # :
EPA TRI # : 11590PRKNL1101P
Air Emmissions Permit # : 2822001828
RCRA # : 131318651
SPDES Permit # :

(R)-FORM R, (A)-FORM A

* PLEASE NOTE: This offsite data was not entered into DEC computer system for Form Rs received after 1992. The default is zero (0).

| CAS Number (Year)<br>Chemical Name<br><br>Max. Stored on Site (lbs.) | 7697372 (97),(A)<br>NITRIC ACID<br><br>NA | | | | | |
|---|---|---|---|---|---|---|
| RELEASES TO THE ENVIRONMENT | lbs./year | lbs./year | lbs./year | lbs./year | lbs./year | lbs./year |
| AIR EMISSIONS | | | | | | |
| Fugitive or Non Point... | | | | | | |
| Stack or Point..... | | | | | | |
| DISCHARGES TO WATER | | | | | | |
| Water 1..... | | | | | | |
| Water 2..... | | | | | | |
| Water 3..... | | | | | | |
| UNDERGROUND INJECTION..... | | | | | | |
| UG INJECTION TO CLASS 1 WELL. | | | | | | |
| UG INJECTION TO CLASS 2 WELL. | | | | | | |
| RELEASES TO LAND | | | | | | |
| On Site Landfill..... | | | | | | |
| On site RCRA Landfill.. | | | | | | |
| On site OTHER Landfill. | | | | | | |
| Application Farming..... | | | | | | |
| Surface Impoundment..... | | | | | | |
| Other Disposal..... | | | | | | |
| OFF SITE TRANSFERS IN WASTE | | | | | | |
| Discharge to POTW..... | | | | | | |
| In State Transfers * ... | | | | | | |
| Out of State Trans * ... | | | | | | |
| Env. Release (Section 8.8) | | | | | | |

- All hazardous waste streams regulated by New York State. New York regulates polychlorinated biphenyls (PCB's) as a hazardous waste. See page 73 for waste codes and descriptions.;
- All hazardous waste streams managed in units subject to RCRA permitting requirements;
- All hazardous waste streams managed in units exempt from RCRA permitting requirements;
- Radioactive wastes if they are mixed with RCRA hazardous waste streams;
- Hazardous waste streams generated as a result of RCRA Corrective Action or other remedial activity;
- RCRA hazardous waste streams generated at Superfund remediation sites;
- For on-site hazardous waste management units subject to RCRA permitting requirements, the RCRA and total capacity, influent, and effluent; and
- For on-site hazardous waste management units exempt from RCRA permitting requirements, the RCRA and total capacity, influent, and effluent.
- Hazardous waste streams which are required to be evaluated in the facility Hazardous Waste Reduction Plan or annual update (See Special Instructions beginning on page 49).

In addition, NYSDEC requests that you provide:

- The capacity (both RCRA and total) for each on-site hazardous waste treatment, disposal, or recycling process system (please see page ? for a description of this term), even if all the units in the system are exempt from RCRA permitting requirements, and
- The influent and effluent quantities for each on-site hazardous waste treatment, disposal, or recycling process system, even if all the units in the system are exempt from RCRA permitting requirements.

## WHICH FORMS TO SUBMIT

This report contains five forms:

Form IC — All sites are required to submit Form IC. Note: There are two sides to this form.

Form GM — A site required to submit the 1993 Hazardous Waste Report must complete Form GM if it generated or shipped any quantity of RCRA or New York State hazardous waste streams during 1993.

A complete, separate, and independent Form GM must be submitted for each RCRA hazardous waste stream if:

- The hazardous waste stream generated on site from a production process or service activity.
- The hazardous waste stream was the result of a spill cleanup, equipment decommissioning, or other remedial cleanup activity.

New York State DEC
1992 Hazardous Waste Report - Generator Annual Report
1992 Summary

03-30-93
Tuesday

spoke to LAURA ZEPTETELLI
800-462-1925

Asked the following questions:

1. do we report recycled or reclaimed waste that is not manifested
   do not report
   metal waste for metal value - al and nickel cyclist - reclaimed exemption not hazardous waste
2. do we report non-regulated waste that is manifested
   do not report
3. do we report Safety Kleen that is manifested from the facility
   you report
   is considered hazardous waste - Dlisted waste
   alot of companies have a contractual agreement with SafetyKleen therefore manifests are not used.

Summary & discussion: report hazardous waste that is manifested from the facility with the following RCRA waste codes BDFKPU or New York State PCB Codes.

Fill the summary report only if filing the Generator Annual Report.

Checked the EPA ID # to make sure which facilities NYS DEC is expecting a report for:
Only expecting a report for Duffy Annex EPA ID# NYD057731663
which is the reporting package that we received.

as per Laura Zeptetelli we do not have to report Prospect Annex for the usage of Safety Klean because if the amount is less than 1000 Kg a month - typically it is a contractual agreement and manifests are not generated. If the amount is under 1000Kg a month than not a large quantity generator and we do not have to report.

# WHO MUST FILE THE 1992 HAZARDOUS WASTE REPORT

## Sites Required

You are required to file the 1992 Hazardous Waste Report if this site met the definition of a New York State Large Quantity Generator (LQG) during 1992, or

this site treated, stored, or disposed of RCRA or New York State hazardous wastes on site in units subject to RCRA permitting requirements during 1992. See **WHICH FORMS TO COMPLETE**, page 2, to determine which forms must be submitted.

### Definition of a RCRA Large Quantity Generator in New York State

This site is a large quantity generator if, in 1992, the site met any of the following criteria:

(a) The site generated or stored in any single month 1,000 kg (2,200 lbs) or more of RCRA or New York State hazardous waste; or

(b) The site generated or stored in any single month, or accumulated at any time, 1 kg(2.2 lbs) of RCRA acute hazardous waste (See Definitions, page 50); or

(c) The site generated or accumulated at any time more than 100 kg (220 lbs) of spill cleanup material contaminated with RCRA acute hazardous waste.

**NOTE:** Wastes treated in units that are exempt from RCRA permitting requirements are not to be counted in determining if a site is a Large Quantity Generator. However, wastes treated in exempt units are to be reported.

## Sites NOT Required to File the Report

You are not required to file the 1992 Hazardous Waste Report if, during 1992, this site was NOT a New York State Large Quantity Generator and did NOT treat, store, or dispose of RCRA hazardous wastes on site in units subject to RCRA permitting requirements.

# MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: November 1, 1983

Union Carbide Corporation urges the customer receiving this Material Safety Data Sheet to study it carefully to become aware of hazards, if any, of the product involved. In the interest of safety you should (1) notify your employees, agents, and contractors of the information on this sheet, (2) furnish a copy to each of your customers for the product, and (3) request your customers to inform their employees and customers as well.

PRODUCT NAME: UCAR® LATEX 879

CHEMICAL NAME: CHEMICAL FAMILY: Styrene Acrylic Latex

| DEPARTMENT OF TRANSPORTATION | | |
|---|---|---|
| | Hazard Classification | None |
| | Shipping Name | None |

CAS # CAS NAME Not Available (mixture)

| | | | |
|---|---|---|---|
| BOILING POINT, 760 mm Hg | ~100°C (212°F) | FREEZING POINT | ~0°C |
| SPECIFIC GRAVITY ($H_2O$ = 1) | ~1.07 | VAPOR PRESSURE at 20°C. | ~17.5mm Hg |
| VAPOR DENSITY (air = 1) | <1 (Water) | SOLUBILITY IN WATER, % by wt. | Dilutable |
| PERCENT VOLATILES BY VOLUME | ~54 wt.% (Water) | EVAPORATION RATE (Butyl Acetate = 1) | ~1 |
| APPEARANCE AND ODOR | White, milky fluid; mild odor. | | |

| MATERIAL | % | TLV | HAZARD |
|---|---|---|---|
| See Page 4 | | | |

| | | | | |
|---|---|---|---|---|
| FLASH POINT [TEST METHOD(S)] | Closed Cup Not Determined (Aqueous System) None Open Cup | | | |
| FLAMMABLE LIMITS IN AIR, % by volume | LOWER | Not Determined (Aqueous System) | UPPER | Not Determined (Aqueous System) |
| EXTINGUISHING MEDIA | The latex will not burn until water has evaporated. For residual solids: use water spray, carbon dioxide, dry chemical, alcohol-type or universal-type foams applied by manufacturers recommended techniques. | | | |
| SPECIAL FIRE FIGHTING PROCEDURES | None | | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | None | | | |

[redacted]

See Section III. Values from ACGIH, 1982, Notice of Intended Changes; OSHA CFR 29, para, 1910.1045, exemption (a) 2 (ii) and para. 1910.1000, Table Z-2

[redacted]

| | |
|---|---|
| SWALLOWING | None currently known. May cause some nausea. |
| SKIN ABSORPTION | None currently known. |
| INHALATION | None currently known. |
| SKIN CONTACT | May cause transient reddening of skin. |
| EYE CONTACT | None currently known. |

[redacted]

None currently known.

[redacted]

None currently known.

[redacted]

This latex may contain small amounts (about 0.3%) of free formaldehyde, which has been shown to cause cancer in laboratory animals but for which there is no evidence that it may cause cancer in humans. There should be minimal risk when used with ventilation adequate to keep the atmospheric concentration of formaldehyde below the recommended exposure limit of 1 ppm.

[redacted]

| | |
|---|---|
| SWALLOWING | No harmful effects expected. |
| SKIN | Wash with soap and water. |
| INHALATION | No emergency care anticipated. |
| EYES | Flush with water. |

**NOTES TO PHYSICIAN**
Toxicology studies have shown similar material to be of very low acute toxicity. There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.
ADDITIONAL COMMENTS: 1) Contains a maximum of 10 ppm acrylonitrile, classified by OSHA as a human carcinogen. Avoid breathing vapors in the top of the shipping container.

| STABILITY | | | |
|---|---|---|---|
| UNSTABLE | STABLE | CONDITIONS TO AVOID | None |
| | X | | |
| INCOMPATIBILITY (materials to avoid) | None | | |
| HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS | When water evaporates, polymer can burn and produce carbon monoxide, carbon dioxide and oxides of nitrogen. | | |
| HAZARDOUS POLYMERIZATION | | | |
| May Occur | Will Not Occur | CONDITIONS TO AVOID | None |
| | X | | |

| | |
|---|---|
| STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED | Major spills should be collected for disposal. Minor spills may be flushed to sewer if local regulations permit. |
| WASTE DISPOSAL METHOD | Bury in suitable landfill where permitted under appropriate government regulations. |

| | |
|---|---|
| RESPIRATORY PROTECTION | None required. |
| VENTILATION | General (mechanical) room ventilation is expected to be satisfactory. |

| | | | |
|---|---|---|---|
| PROTECTIVE GLOVES | Recommended | EYE PROTECTION | Safety glasses |
| OTHER PROTECTIVE EQUIPMENT | Eye Bath | | |

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**
Avoid breathing vapors, particularly those in the top of the shipping container.
Keep container closed.
Use with adequate ventilation.

**FOR INDUSTRY USE ONLY**

**OTHER PRECAUTIONS**
None

The opinions expressed herein are those of qualified experts within Union Carbide Corporation. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within the control of Union Carbide Corporation, it is the user's obligation to determine the conditions of safe use of the product.

| MATERIAL | % | TLV | HAZARD |
|---|---|---|---|
| Styrene-Acrylic Copolymer | ~46 | None Established | None Currently Known. |
| Formaldehyde | ~0.3 | 1 ppm, ACGIH<br>3 ppm, OSHA | Toxic, irritant, animal carcinogen. |
| Acrylonitrile | <0.001 | 2 ppm (skin) | Carcinogen |
| Water | ~54 | -- | -- |



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# FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Cobalt Powder |

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision [ ]

For EPA use only

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 93

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?

[ ] Yes (Answer question 2.2; Attach substantiation forms)
[X] No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy:

[ ] Sanitized [X] Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official

Joe Macri, Manager Facilities and Transportation

Signature: J Macri

Date Signed: June 30, 1994

**SECTION 4. FACILITY IDENTIFICATION**

4.1

Facility or Establishment Name: Metco Division Perkin-Elmer Corporation

TRI Facility ID Number: 11801PRKNL220MI

Street Address: 220 Miller Place

City: Hicksville

County: Nassau

State: New York

Zip Code: 11801

Mailing Address (if different from street address): 1101 Prospect Avenue

City: Westbury

State: New York

Zip Code: 11590

PUT LABEL HERE

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# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| **Toxic Chemical, Category, or Generic Name** |
| Cobalt Powder |

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | | b. ☒ Part of a facility | | | |
| 4.3 | Technical Contact | Name: Joe Macri | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.4 | Public Contact | Name: Joe Macri | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.5 | SIC Code (4-digit) | a. 3399 | b. | c. | d. | e. | f. |
| 4.6 | Latitude and Longitude | Latitude | | | Longitude | | |
| | | Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| | | 086 | 13 | 00 | 003 | 47 | 00 |

| | | |
|---|---|---|
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a. 05-773-1663<br>b. |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a. NYD981558570<br>b. |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a. N/A<br>b. |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a. N/A<br>b. |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company | ☐ NA: Perkin-Elmer Corporation |
| 5.2 | Parent Company's Dun & Bradstreet Number | ☐ NA (9 digits): 00-118-4480 |

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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Cobalt Powder |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)<br>7440-48-4 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)<br>Cobalt |
| 1.3 | Generic Chemical Name (Important: Complete **only** if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.)<br>N/A |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.)<br>N/A |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | |
|---|---|---|---|
| 3.1 | Manufacture the toxic chemical: | a. ☐ Produce<br>b. ☐ Import | If produce or import:<br>c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | Process the toxic chemical: | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. ☒ As an article component<br>d. ☒ Repackaging |
| 3.3 | Otherwise use the toxic chemical: | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☐ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 | (Enter two-digit code from instruction package.) |

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| **Toxic Chemical, Category, or Generic Name** |
| Cobalt Powder |

## SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/ year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | [X] NA | | | |
| 5.2 | Stack or point air emissions | [ ] NA | A | C | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name<br>N/A | | | | |
| 5.3.2 | Stream or Water Body Name<br>N/A | | | | |
| 5.3.3 | Stream or Water Body Name<br>N/A | | | | |
| 5.4 | Underground injections on-site | [X] NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | [X] NA | | | |
| 5.5.2 | Land treatment/ application farming | [X] NA | | | |
| 5.5.3 | Surface impoundment | [X] NA | | | |
| 5.5.4 | Other disposal | [X] NA | | | |

[ ] Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds
C = 500 - 999 pounds

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Cobalt Powder |

## SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 Discharges to receiving streams or water bodies (enter one name per box) | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |

## SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

#### 6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| N/A | |

#### 6.1.B POTW Name and Location Information

| 6.1.B.__ POTW Name<br>N/A | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

**If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Sections 5.3/6.1 page this is, here. [ ] (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Cobalt Powder |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: Loni-Jo Metal Corporation

Street Address: 70 Kinkel Street

City: Westbury | County: Nassau

State: New York | Zip Code: 11590 | Is location under control of reporting facility or parent company? ☐ Yes ☒ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 790 | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: N/A

Street Address:

City: | County:

State: | Zip Code: | Is location under control of reporting facility or parent company? ☐ Yes ☐ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box ☐ and indicate which Part II, Section 6.2 page this is, here. ☐ (example: 1, 2, 3, etc.)**

Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| **Toxic Chemical, Category, or Generic Name** |
| Cobalt Powder |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] **Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.**

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes [ ] No [ ] |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes [ ] No [ ] |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes [ ] No [ ] |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes [ ] No [ ] |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes [ ] No [ ] |

**If additional copies of page 7 are attached, indicate the total number of pages in this box [ ] and indicate which page 7 this is, here. [ ] (example: 1, 2, 3, etc.)**

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| **Toxic Chemical, Category, or Generic Name** |
| Cobalt Powder |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.**

Energy Recovery Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ]

## SECTION 7C. ON-SITE RECYCLING PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.**

Recycling Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 [ ]

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Chemical, Category, or Generic Name |
| Cobalt Powder |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| *All quantity estimates can be reported using up to two significant figures.* | | Column A 1992 (pounds/year) | Column B 1993 (pounds/year) | Column C 1994 (pounds/year) | Column D 1995 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released * | 0 | 0 | 0 | 0 |
| 8.2 | Quantity used for energy recovery on-site | 0 | 0 | 0 | 0 |
| 8.3 | Quantity used for energy recovery off-site | 0 | 0 | 0 | 0 |
| 8.4 | Quantity recycled on-site | 0 | 0 | 0 | 0 |
| 8.5 | Quantity recycled off-site | 240 | 790 | 800 | 800 |
| 8.6 | Quantity treated on-site | 0 | 0 | 0 | 0 |
| 8.7 | Quantity treated off-site | 0 | 0 | 0 | 0 |

| | | |
|---|---|---|
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | N/A |
| 8.9 | Production ratio or activity index | .89 |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | W19 | a. T04 | b. T06 | c. |
| 8.10.2 | W39 | a. T04 | b. T10 | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | YES | NO |
|---|---|---|---|
| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | | X |

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

# FORM GM

**Box J:** Reported TRI constituents

Enter the code that best describes the relationship of the waste stream and the site's requirement to submit the Toxic Chemical Release Inventory (TRI) Report Form in 1992 (Form R). (Refer to the Definitions section, page 54, for a description of the TRI and Form R.)

| Code | Reported TRI constituents |
|---|---|
| 1 | The site did not file a TRI report. |
| 2 | The site filed a TRI report but the waste described in Section I, Box A contains no TRI constituents for which a Form R was filed. |
| 3 | The site filed a TRI report and the waste described in Section I contains one or more TRI constituents for which a Form R was completed. |
| 8 | Don't know |

**Skip to Section II** if you entered code 1, 2, or 8.
**Continue to Box K** if you entered code 3.

Box K: CAS numbers

Complete Box K only if you entered code 3 in Box J. Enter the Chemical Abstract System (CAS) numbers, exactly as they appear on your 1992 Form R submission, for up to five TRI constituents present in the waste. Enter the CAS numbers representing the TRI constituents indescending order of concentration. (Enter the number representing the TRI constituent of highest concentration in Box K,1.; the next highest in Box K,2.; and so on up to five constituents.) If fewer than five TRI constituents are present, leave the remaining spaces blank.

CAS chemical compound categories may be entered isn the same space provided for the CAS numbers. Simply left justify the category code and zero fill the remaining blanks (e.g. N0700-00-0).

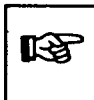
**Section II:** Quantities of Hazardous Waste Generated during 1992 and 1993

**Box A:** Quantity generated in 1992

Enter the total quantity of the hazardous waste that was generated during 1992 for the waste described in Section I. If the waste was not generated in 1992, enter "NA." Right justify the quantity entry. The unit of measure (UOM) and density will be reported in Box C.

**Box B:** Quantity generated in 1993

Enter the total quantity of the hazardous waste that was generated during 1993 for the waste described in Section I. Right justify the quantity entry. The unit of measure (UOM) and density will be reported in Box C.



**NOTE:** If your facility acted as a transfer facility for this waste stream, Boxes A and B will not apply to you. In other words, if your facility received this waste from off site and did not treat or recycle the waste, you are not the generator of this waste stream. Therefore, you should leave the generation quantity blank. However, since you will need to provide information on off site shipment of the waste, you must enter a unit of measure.

# TigerVac®

## THE TIGER'S FAMILY

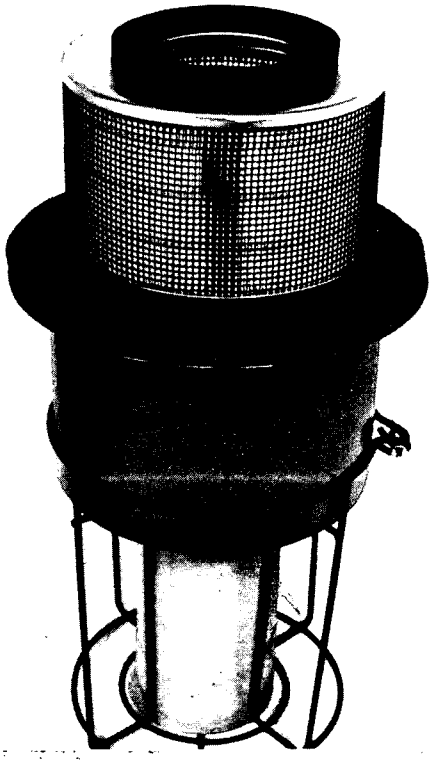
"QUALITY
VACUUM CLEANERS
SINCE 1965"

## THE SUPER TWO

**WET & DRY WITH SELF-CLEANING DUST FILTER**

## THE BIG ONE

TIGT CART

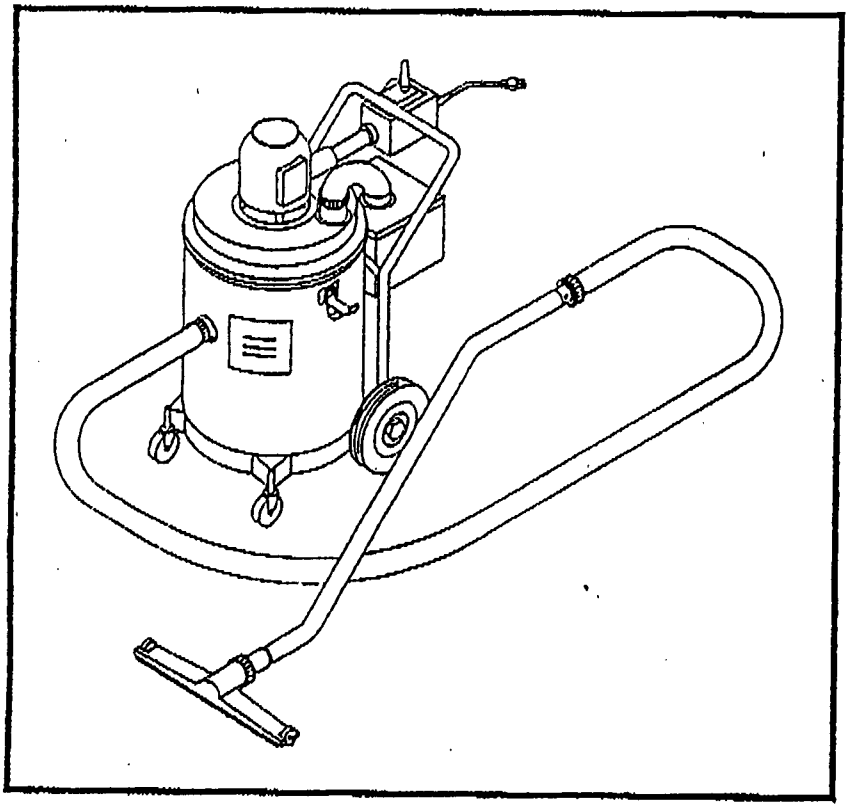


**Full line of high quality products for Industrial - Commercial - Institutional needs.**

**Dangerous materials no problems with the (H.E.P.A.) high efficiency particulate air.**

**Filters are 99.97% escape-proof at 0.3 microns. Verified by independent test.**

# TWO-STAGE TOTALLY ENCLOSED MOTOR COMMERCIAL AND INDUSTRIAL VACUUM HAZARDOUS LOCATION EQUIPMENT EXPLOSION-PROOF/DUST IGNITION PROOF



## OPERATING INSTRUCTIONS AND TECHNICAL DATA

CSA Ⓚ approved for use in CLASS I - GROUP D, CLASS II - GROUP E, CLASS II - GROUP F, and CLASS II - GROUP G, Atmospheres.

TABLE OF CONTENTS


A. - Precautions for Designated substances Page: 1

B. - Ground continuity Page: 1

C. - Operating instructions (dry suction) Page: 2

D. - Operating instructions(wet suction) Page: 2 and 3

E. - Assembling H.E.P.A. housing box Page: 3

F. - Replacing H.E.P.A. filter Page: 3

G. - EXP-1 Applications Page: 4

H. - Grounding instructions Page: 5

I. - Specifications Page: 5

TO ENSURE A SAFE WORKING ENVIRONMENT, CAREFULLY READ THE FOLLOWING INSTRUCTIONS BEFORE OPERATING THE EXP-1 UNIT.

A. **WARNING** : If the EXP-1 unit is used to pick-up designated substances (toxic/hazardous materials) the following precautions must be taken.

1. - EXP-1 unit must be equipped with an HE.P.A. filter.

2. - The clamps on the ends of the hose connecting the EXP-1 air exhaust to the square H.E.P.A. housing box must be mechanically tightened. This will prevent contaminated air from escaping.

3. - Service and operation should only be carried out by trained personel.

4. - Dispose of all collected waste responsibly. Follow government regulations for the disposal of hazardous materials.

B. GROUND CONTINUITY

Each EXPLOSION PROOF/DUST IGNITION PROOF vacuum is supplied with a ground continuity tester. It is highly recommended that each unit be tested for ground continuity before each use.

To verify ground continuity:

1. - Fasten the alligator clip from the ground continuity tester to the ground pin on the EXP-1 electrical power cord. Connect the other end of circuit to the test prod.

2. - Touch any part of the EXP-1 metal power unit with the test prod. The light on the test prod will illuminate. This indicates that there is ground continuity and that the EXP-1 unit is functioning properly.

**WARNING** : If there is no light on the test prod DO NOT OPERATE UNIT. Refer unit to an AUTHORIZED SERVICE CENTER only.

C. OPERATING INSTRUCTIONS FOR DRY SUCTION ONLY.

1. - Release latches and remove power-head from dust container.

2. - Place the static dissipating self cleaning cloth filter on the dust container, making sure that it's gasket covers the entire circumference of the dust container lip.

3. - Place the EXP-1 power-head on the dust container and fasten latches.

4. - Fasten the static dissipating neoprene hose to the suction intake on the dust collector and attach the necessary tools to the hose.

5. - Operate EXP-1 unit on grounded electrical outlets only.

6. - Operate switch.

D. OPERATING INSTRUCTIONS FOR WET SUCTION.

1. - Release latches and remove power-head from dust container.

2. - Remove static dissipating cloth filter. Rinse-out and dry the inside of dust container and static dissipating neoprene hose.

3. - Place static dissipating nylon mesh filter on the dust container, making sure that it's gasket covers the entire circumference of the dust container lip.

4. - Make sure that the cylindrical aluminium floater is in the slotted aluminium housing. To avoid placing floater upside-down, follow the directions located on the floater.

5. - Place the EXP-1 power-head on the dust container and fasten latches.

6. - Fasten the static dissipating neoprene hose to the suction intake on the dust container and attach the necessary tools to the hose.

7. - Operate EXP-1 unit on grounded electrical outlets only.

OPERATING INSTRUCTIONS FOR WET SUCTION (cont'd)

8. - Operate switch.

9. - Dry the inside of dust container and static dissipating hose after wet suction.

## E. ASSEMBLING H.E.P.A. HOUSING BOX

1. - Hook the square H.E.P.A. housing box to the back of the EXP-1 unit on the horizontal drum support bar.

2. - Connect the hose from the H.E.P.A. housing box to the EXP-1 air exhaust.
It is very important that the clamps on both ends of the connecting hose be mechanically tightened. This will ensure that no contaminated air will escape.

## F. REPLACING H.E.P.A. FILTER

To replace the absolute filter located in the square H.E.P.A. housing box.

1. - Unlock the latches located on the H.E.P.A. housing box and remove lid.

2. - Remove contaminated filter.

3. - Insert new filter following the directions indicated on the filter itself. The arrow which indicates the passage of air through the filter must point downwards.

4. - Place lid on the square H.E.P.A. housing box and secure it with the latches.

5. - Dispose of contaminated filter according to government regulations.

G. The motors used in the EXP-1 vacuum have been listed by Underwriters Laboratories Inc. in guide PTDR, file E-25653, for use in hazardous locations with respect to the safety of operation as follows:

CLASS I - GROUP D - Atmospheres containing: Gazoline, petroleum, naphta, benzine, butane, propane, alcohol, acetone, benzol, lacquer solvent vapors or natural gas.

CLASS II - GROUP E - Atmospheres containing: Metal dust, including aluminium, magnesium and other commercial alloys

CLASS II - GROUP F - Atmospheres containing: Carbon black, coal or coke dust.

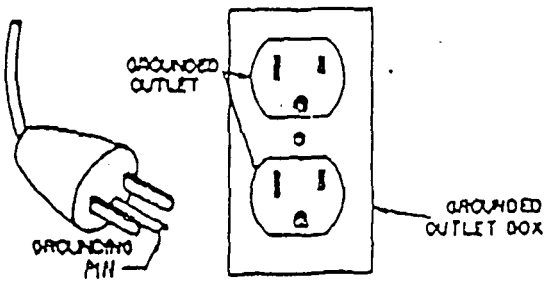
CLASS II - GROUP G - Atmospheres containing: Flour, starch or grain dust.

N.B.: The motors used in the EXP-1 vacuum are designed for use in commercial and industrial vacuum equipment which employs filters to remove dirt from the air-stream before reaching the vacuum fans. Do not operate the EXP-1 vacuum without proper filter system.

H. This vacuum cleaner must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electrical shock. This vacuum cleaner is equipped with a cord having an equipment-grounding conductor and an optional grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

**DANGER** Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the vacuum cleaner, if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This vacuum cleaner is for use on a nominal 120-volt circuit and has a grounding plug that looks like the plug illustrated below. Make sure that the vacuum cleaner is connected to an outlet having the same configuration as the plug. No adaptor should be used with this vacuum cleaner.




I. SPECIFICATIONS

MODEL EXP-1 : 115 Volts, 60 Hz

Water lift : 69"

CFM
@1 1/2" opening: 120

NASSAU COUNTY DEPARTMENT OF HEALTH
NASSAU COUNTY PUBLIC HEALTH ORDINANCE - ARTICLE XI
PERMIT COMPLIANCE INSPECTION REPORT
BUREAU OF ENVIRONMENTAL MANAGEMENT

Facility Name: SULZER METCO U.S. INC. | Facility I.D. No.: 1535
Address: 220 MILLER PL. HICKSVILLE, NY.
Contact Person: BOB MURPHY
Title: LOGISTICS MGR. | Phone: 338-2334
Date Permit Expires: 9/1/04. | New [ ] Renewal [X]

| ITEM | Yes | No | N/A |
|---|---|---|---|
| **A. TANK STORAGE** | | | |
| 1.Leakage/Spill Monitoring Equipment Functioning | | | ✓ |
| 2.Means of Calculating Product Delivery & Use | | | ✓ |
| 3.Proper Overfill Protection | | | ✓ |
| 4.Adequate Spill Control & Containment | | | ✓ |
| 5.Roof Over Storage/Transfer Operation | | | ✓ |
| 6.Proper Testing & Inspections | | | ✓ |
| 7.Proper Labels & Notices Posted | | | ✓ |
| 8.Standard Operating Procedures Posted | | | ✓ |
| **B. RECORDS & REPORTS** | | | |
| 1.Records of Chemical Deliveries & Use In Order | | | ✓ |
| 2.Records of Inspections In Order | | | ✓ |
| 3.Records of Leaks & Spills In Order | | ✓ | ✓ |
| 4.Waste Records In Order | ✓ | | |
| 5.Reports Submitted On Time | | | ✓ |

| ITEM | Yes | No | N/A |
|---|---|---|---|
| **C. BULK & CONTAINER STORAGE** SOLID & LIQUID Dm. WASTE. | | | |
| 1.Adequate Spill Control & Containment | ✓ | | |
| 2.Proper Segregation of Incompatible Wastes | ✓ | | |
| 3.Bulk Chemicals Stored On Pallets & Under Roof | ✓ | | |
| 4.Storage Area Secure | ✓ | | |
| 5.Proper Stack Size & Adequate Aisles | ✓ | | |
| 6.Containers Off Ground, Capped, Not Leaking | ✓ | | |
| 7.Proper Labels & Notices Posted | ✓ | | |
| 8.Standard Operating Procedures Posted | ✓ | | |
| **D. WASTES - ESTIMATED QUANTITIES ON SITE** | | | |
| 1.Containers | ✓ | | |
| 2.Tanks | | ✓ | |
| **E. FLOOR DRAINS** | | | ✓ |
| **F. EMISSION POINTS** | | | ✓ |
| **G. OVERALL INSPECTION** [✓] Satisfactory [ ] Non-Compliance | | | |

| Date | Item | |
|---|---|---|
| | A. | TWO ≈ 3" STEEL VENT PIPES ON SOUTH SIDE OF BUILDING. OPERATOR TO INVESTIGATE FOR |
| | | ~~TEST~~ PROPER CLOSURE, PRE 1986, OF TANKS. VENTS MUST BE REMOVED. |
| | C-8 | S.O.P. POSTED |
| | C- | PARTICULATE MATERIAL, ROLLING FROM ROOF. FACILITY WAS SCRUBBED & VACUUMED. |
| | C- | SNIPPETS OF PARTICULATE ON ROOF & INSIDE FACILITY HAVE BEEN IDENTIFIED AND |
| | | ARE ELIMINATED. |

Signature of ~~Inspector~~ | Date 10/14/03. | Signature of Company Representative | Date 10/14/03

FEH870

HE-1508. 12/94

WORK COPY PA

(IMPORTANT: Type or print; read instructions before completing form)

Form Approved OMB Number: 2070-0093
Approval Expires: 11/92



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# FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI FACILITY ID NUMBER: 11590PRKNL1101P

Toxic Chemical, Category, or Generic Name: COBALT POWDER

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 92

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?

[ ] Yes (Answer question 2.2; Attach substantiation forms) [X] No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy: [ ] Sanitized [X] Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official:

JOE MACRI, MANAGER FACILITIES

Signature:

Date Signed: June 30, 1993

**SECTION 4. FACILITY IDENTIFICATION**

4.1

Facility or Establishment Name: METCO DIVISION PERKIN-ELMER

TRI Facility ID Number: 11590PRKNL1101P

Street Address: 1101 Prospect Avenue

City: Westbury

County: Nassau

State: New York

Zip Code: 11590

Mailing Address (if different from street address):

City:

State:

Zip Code:

PUT LABEL HERE

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# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| **Toxic Chemical, Category, or Generic Name** |
| COBALT POWDER |

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | | | b. [X] Part of a facility | | |
| 4.3 | Technical Contact | Name: JOE MACRI | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.4 | Public Contact | Name: JOE MACRI | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.5 | SIC Code (4-digit) | a. 3542 | b. | c. | d. | e. | f. |
| 4.6 | Latitude and Longitude | Latitude: Degrees | Minutes | Seconds | Longitude: Degrees | Minutes | Seconds |
| | | 075 | 09 | 50 | 027 | 53 | 16 |
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a. 05-773-1663 | | | | | |
| | | b. | | | | | |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a. NYD131318651 | | | | | |
| | | b. | | | | | |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a. N/A | | | | | |
| | | b. | | | | | |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a. N/A | | | | | |
| | | b. | | | | | |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company | |
| | ☐ NA | PERKIN-ELMER CORPORATION |
| 5.2 | Parent Company's Dun & Bradstreet Number | |
| | ☐ NA (9 digits) | 00-118-4480 |

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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440-48-4 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | COBALT |
| 1.3 | Generic Chemical Name (Important: Complete **only** if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.) |
| | N/A |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers,letters, spaces, and punctuation.) |
| | N/A |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | |
|---|---|---|---|
| 3.1 | Manufacture the toxic chemical: | a. ☐ Produce<br>b. ☐ Import | If produce or import:<br>c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | Process the toxic chemical: | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. ☐ As an article component<br>d. ☐ Repackaging |
| 3.3 | Otherwise use the toxic chemical: | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☒ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 03 | (Enter two-digit code from instruction package.) |

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL 1101P |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

## SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/ year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | [X] NA | | | |
| 5.2 | Stack or point air emissions | [ ] NA | 67 | C | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name: N/A | | | | |
| 5.3.2 | Stream or Water Body Name: N/A | | | | |
| 5.3.3 | Stream or Water Body Name: N/A | | | | |
| 5.4 | Underground injections on-site | [X] NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | [X] NA | | | |
| 5.5.2 | Land treatment/ application farming | [X] NA | | | |
| 5.5.3 | Surface impoundment | [X] NA | | | |
| 5.5.4 | Other disposal | [X] NA | | | |

[ ] Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = 1
C = 500 - 999 pounds.

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United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590 PRKNL 1101P |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

### SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 Discharges to receiving streams or water bodies (enter one name per box) | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

#### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| N/A | |

**6.1.B POTW Name and Location Information**

| 6.1.B.__ POTW Name | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

**If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Sections 5.3/6.1 page this is, here. [ ] (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 11
C = 500 - 999 pounds.

EPA

United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2.__ Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: LONI - ID SCRAP METAL

Street Address: 90 KINKEL STREET

City: WESTBURY | County: NASSAU

State: NY | Zip Code: 11590 | Is location under control of reporting facility or parent company? ☐ Yes ☒ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. B | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2.__ Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: N/A

Street Address:

City: | County:

State: | Zip Code: | Is location under control of reporting facility or parent company? ☐ Yes ☐ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box ☐ and indicate which Part II, Section 6.2 page this is, here. ☐ (example: 1, 2, 3, etc.)**

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| COBALT POWDER |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

☒ Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes ☐ No ☐ |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes ☐ No ☐ |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes ☐ No ☐ |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes ☐ No ☐ |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes ☐ No ☐ |

If additional copies of page 7 are attached, indicate the total number of pages in this box ☐ and indicate which page 7 this is, here. ☐ (example: 1, 2, 3, etc.)

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11590PRKNL1101P

Toxic Chemical, Category, or Generic Name: COBALT POWDER

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☒ **Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.**

Energy Recovery Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ]

## SECTION 7C. ON-SITE RECYCLING PROCESSES

☒ **Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.**

Recycling Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 [ ]

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL11DIP |
| Chemical, Category, or Generic Name |
| COBALT POWDER |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | *All quantity estimates can be reported using up to two significant figures.* | Column A 1991 (pounds/year) | Column B 1992 (pounds/year) | Column C 1993 (pounds/year) | Column D 1994 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released * | 0 | 0 | 0 | 0 |
| 8.2 | Quantity used for energy recovery on-site | 0 | 0 | 0 | 0 |
| 8.3 | Quantity used for energy recovery off-site | 0 | 0 | 0 | 0 |
| 8.4 | Quantity recycled on-site | 0 | 0 | 0 | 0 |
| 8.5 | Quantity recycled off-site | 140 | 120 | 130 | 130 |
| 8.6 | Quantity treated on-site | 0 | 0 | 0 | 0 |
| 8.7 | Quantity treated off-site | 0 | 0 | 0 | 0 |

| | | |
|---|---|---|
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | N/A |
| 8.9 | Production ratio or activity index | .95 |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | W19 | a. T04 | b. | c. |
| 8.10.2 | W29 | a. T04 | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | YES | NO |
|---|---|---|---|
| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | ☐ | ☒ |

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

# ARCADIS GERAGHTY & MILLER

ARCADIS Geraghty & Miller, Inc.
88 Duryea Road
Melville
New York 11747
Tel 516 249 7600
Fax 516 249 7610

TELEFAX

To:
Mr. Richard G. Rudolf, Esq.
Sulzer Technology Corporation
555 5th Avenue, 7th Floor
New York, New York 10017

Copies:
Mike Lydon, Sulzer Metco (US), Inc.
Tom Eng, ARCADIS Geraghty & Miller, Inc.
Thomas Lobasso, ARCADIS Geraghty & Miller, Inc.

ENVIRONMENTAL

Fax:
(212) 661-0533

Total pages:
4

Date:
25 May 1999

Subject:
Sump Remediation Work at the 325 Duffy Avenue Facility, Sulzer Metco (US) Inc., Hicksville, New York

ARCADIS Geraghty & Miller Project No.:
NY001110.0004

From:
Glenn Netuschil, P.E.

Extension:
(516) 391-5207

If you do not receive all pages, please call to let us know as soon as possible.

Attached please find the proposal for the remediation of Sump 3. If you have any questions or comments, please feel free to call me at (516) 391-5207.

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL, AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW.
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# ARCADIS GERAGHTY&MILLER

ARCADIS Geraghty & Miller, Inc.
88 Duryea Road
Melville
New York 11747
Tel 516 249 7600
Fax 516 249 7610

Mr. Richard G. Rudolf, Esq.
Sulzer Technology Corporation
555 5th Avenue, 7th Floor
New York, New York 10017

ENVIRONMENTAL

Subject:
Sump Remediation Work at the 325 Duffy Avenue Facility Sulzer Metco (US) Inc., Hicksville, New York.
ARCADIS Geraghty & Miller Project No. NY001110.0004

Melville,
25 May 1999

Contact:
Glenn Netuschil

Extension:
(516) 391-5207

Dear Mr. Rudolf:

ARCADIS Geraghty and Miller, Inc. in association with GM Consulting Engineers, P.C. is pleased to provide Sulzer Metco (US) Inc. with the following scope of work. It has been developed based on the previous remediation work conducted at the 325 Duffy Avenue Facility.

## Scope Of Work

ARCADIS Geraghty & Miller, Inc. will subcontract and provide oversight for the remediation of a third sump (Sump 3) discovered during our previous sump remediation work throughout October and November of 1998. Our subcontractor will excavate Sump 3 located in the maintenance department. All sediments within Sump 3 have previously been removed, drummed and disposed of. The concrete slab above the sump will be saw cut approximately 3 feet beyond its limits. The concrete slab, along with the sump cover, will be removed. All pipes leading into the sump will be cut on the outside of the sump. An excavator will be used to excavate the soil around the sump and lift the sump above grade. The extent of the soil excavation will be determined based on odor and color of impacted soil or until the limits of the excavation (to edge of saw cut and to approximately 7 feet below floor level). All excavated soil and concrete will be staged on two layers of plastic in an area designated by Sulzer Metco (US) Inc. Waste characterization samples will be collected and, based on the results, the soil will be disposed of accordingly. Once final approval is received from the disposal facility, our subcontractor will prepare the waste characterization forms for Sulzer Metco (US) Inc. approval prior to transport and disposal of the soil. Sulzer Metco (US) Inc. will have final authority for all bills of lading and disposal manifests.

Endpoint samples will be collected from the bottom and 4 sides of the Sump 3 excavation and analyzed for priority pollutant metals on a 48-hour turnaround time.

The excavation will be properly barricaded with construction fencing and caution tape during excavation activities. When endpoint samples indicate that impacted soils have been adequately removed, the existing interconnecting pipelines between Sumps 1, 2 and 3 will be filled with concrete along with existing Sump 1 as requested by Sulzer Metco (US) Inc. The Sump 3 excavation will be backfilled with certified clean fill. The backfill will be compacted in one foot lifts to the level of the bottom of the floor slab. The concrete floor around the Sump 3 excavation will be restored to existing conditions as well as the concrete floor around Sump 2. The cost for restoring Sump 2 is included in previous purchase orders and not reflected in this proposal.

ARCADIS Geraghty & Miller, Inc. will need to coordinate this excavation with production personnel to avoid any problems or delays. ARCADIS Geraghty & Miller, Inc. will not be responsible for removing any equipment or stored material from the areas to be excavated or provide a temporary bypass system. The excavation and sump removal will take approximately two days, the laboratory analysis will take two days, and the restoration will take approximately three days. All equipment brought into the facility (i.e., excavator) will be equipped with exhaust scrubbers or run on propane fuel / compressed air to maintain air quality within the facility.

**Summary Letter Report**

Upon completion of this work, a draft letter report summarizing the work conducted will be submitted to Sulzer Metco (US) Inc. for review. Upon Sulzer Metco (US) Inc. approval, we will submit a final letter report.

The total lump sum cost for performing this scope of work is $24,900, which consists of $5,600 for ARCADIS Geraghty & Miller fees and expenses, and $19,300 for subcontractor fees. This cost assumes that 25 tons of excavated soil will be excavated and disposed of as a non-hazardous waste (based on previous remediation work). All work will be performed in accordance to the Master Services Agreement dated May 21, 1998. If the scope of services, estimated costs, and time frames are acceptable to you, please indicate by signing and returning a copy of this proposal.

**ARCADIS** GERAGHTY&MILLER

Should you have any questions or comments, please feel free to call.

Sincerely,
ARCADIS Geraghty & Miller, Inc.

Mark P. Soliman
Engineer

GM Consulting Engineers, P.C.

Glenn Netuschil, P.E.
Project Engineer/Project Manager

Authorized Representative of Sulzer Metco (US) Inc. Date

Enclosure

Copies:
Mike Lydon - Sulzer Metco (US), Inc.
Tom Eng - ARCADIS Geraghty & Miller, Inc.
Thomas Lobasso - ARCADIS Geraghty & Miller, Inc.

# ARCADIS GERAGHTY & MILLER

ARCADIS Geraghty & Miller, Inc.
88 Duryea Road
Melville
New York 11747
Tel 516 249 7600
Fax 516 249 7610

Mr. Richard G. Rudolf, Esq.
Sulzer Technology Corporation
555 5th Avenue, 7th Floor
New York, New York 10017

ENVIRONMENTAL

Subject:
Sump Remediation Work at the 325 Duffy Avenue Facility Sulzer Metco (US) Inc., Hicksville, New York.
ARCADIS Geraghty & Miller Project No. NY001110.0004

Melville,
25 May 1999

Contact:
Glenn Netuschil

Extension:
(516) 391-5207

Dear Mr. Rudolf:

ARCADIS Geraghty and Miller, Inc. in association with GM Consulting Engineers, P.C. is pleased to provide Sulzer Metco (US) Inc. with the following scope of work. It has been developed based on the previous remediation work conducted at the 325 Duffy Avenue Facility.

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Endpoint samples will be collected from the bottom and 4 sides of the Sump 3 excavation and analyzed for priority pollutant metals on a 48-hour turnaround time.

The excavation will be properly barricaded with construction fencing and caution tape during excavation activities. When endpoint samples indicate that impacted soils have been adequately removed, the existing interconnecting pipelines between Sumps 1, 2 and 3 will be filled with concrete along with existing Sump 1 as requested by Sulzer Metco (US) Inc. The Sump 3 excavation will be backfilled with certified clean fill. The backfill will be compacted in one foot lifts to the level of the bottom of the floor slab. The concrete floor around the Sump 3 excavation will be restored to existing conditions as well as the concrete floor around Sump 2. The cost for restoring Sump 2 is included in previous purchase orders and not reflected in this proposal.

ARCADIS Geraghty & Miller, Inc. will need to coordinate this excavation with production personnel to avoid any problems or delays. ARCADIS Geraghty & Miller, Inc. will not be responsible for removing any equipment or stored material from the areas to be excavated or provide a temporary bypass system. The excavation and sump removal will take approximately two days, the laboratory analysis will take two days, and the restoration will take approximately three days. All equipment brought into the facility (i.e., excavator) will be equipped with exhaust scrubbers or run on propane fuel / compressed air to maintain air quality within the facility.

**Summary Letter Report**

Upon completion of this work, a draft letter report summarizing the work conducted will be submitted to Sulzer Metco (US) Inc. for review. Upon Sulzer Metco (US) Inc. approval, we will submit a final letter report.

The total lump sum cost for performing this scope of work is $24,900, which consists of $5,600 for ARCADIS Geraghty & Miller fees and expenses, and $19,300 for subcontractor fees. This cost assumes that 75 tons of excavated soil will be excavated and disposed of as a non-hazardous waste (based on previous remediation work). All work will be performed in accordance to the Master Services Agreement dated May 21, 1998. If the scope of services, estimated costs, and time frames are acceptable to you, please indicate by signing and returning a copy of this proposal.

ARCADIS GERAGHTY&MILLER

Richard Rudolf, Esq.
25 May 1999

Should you have any questions or comments, please feel free to call.

Sincerely,
ARCADIS Geraghty & Miller, Inc.

Mark P. Soliman
Engineer

GM Consulting Engineers, P.C.

Glenn Netuschil, P.E.
Project Engineer/Project Manager

Authorized Representative of Sulzer Metco (US) Inc. Date

Enclosure

Copies:
Mike Lydon - Sulzer Metco (US), Inc.
Tom Eng - ARCADIS Geraghty & Miller, Inc.
Thomas Lobasso - ARCADIS Geraghty & Miller, Inc.

GERAGHTY & MILLER, INC.
*Environmental Services*

cc Anne-Marie Menzer

A Heidemij company

February 27, 1995

**VIA FACSIMILE**

Charles Heinzer
The Perkin-Elmer Corporation
761 Main Avenue
Norwalk, Connecticut 06859-0006

RE: Removal of Soils Impacted with Polychlorinated biphenyls (PCBs) from the Metco Facility, 325 Duffys Avenue, Hicksville, New York.

Dear Mr. Heinzer:

Geraghty & Miller, Inc. is providing Perkin-Elmer the following documentation regarding the removal of soils impacted with polychlorinated biphenyls (PCBs) from below a dry well located at the Metco Facility, 325 Duffys Avenue, Hicksville, New York. This work was initiated and completed within the last two weeks of December 1994.

Geraghty & Miller contracted Moretrench Environmental Services, Inc. of Rockaway, New Jersey to conduct the construction activities. All work was carried out in accordance with the specifications provided to Perkin-Elmer in our letter dated November 30, 1994. During the construction activities, Geraghty & Miller collected soil samples from a depth of 17 ft below land surface (bls) and 20 ft bls for field analysis of total PCBs with a DTech PCB field test kit. The results of this sampling are provided in Table 1. In addition, one sample was collected from the base of the excavation (22 ft bls) and submitted to IEA Laboratories, Monroe, Connecticut for laboratory analysis of PCBs by USEPA Method 8080. The laboratory analytical results are also included in Table 1.

Based on the results of the field and laboratory analysis, the concentrations of PCBs detected in soils at the base of the excavation (20 to 22 ft bls) ranged from 1 to 2 milligrams per kilogram (mg/Kg), which is below the New York State Recommended Soil Cleanup Objective of 10 mg/Kg PCBs in subsurface soils. Based on these results, Geraghty & Miller is recommending clean closure of this dry well.

If you have any questions regarding this issue, please contact Victoria Kramer at (516) 391-5268.

Sincerely,

GERAGHTY & MILLER, INC.

Victoria H. Kramer
Senior Scientist/Project Manager

Thomas Lobasso
Vice President/Project Officer

cc: M. Tone (Nixon, Hargrave, Devans, and Doyle)

VHK/TL:bjm
G:\APROJECT\PERKINEL\NY0747.005\CORRES\DRYWLCLS.LTR

Table 1. Concentrations of Polychlorinated Biphenyls detected in Soil Samples Collected December 1994, Metco Facility, Hicksville, New York.

| Sample ID: | 17 | 20 | DW-20 (Post Excavation) |
|---|---|---|---|
| Sample Depth: | 17 ft bls | 20 ft bls | 20 ft bls |
| Analytical Method: | D Tech field test kit | D Tech field test kit | USEPA Method 8080 |
| Concentration In: | ppm | ppm | mg/kg |
| Total PCB: | 20 | <1.0 | 2.2 |

ft bls Feet below land surface.
ppm Parts per million (which is equivalent to milligrams per kilogram).
mg/kg Milligrams per kilogram.

# SCOPE OF WORK

The following scope of work has been developed to address the recommendations made for the remediation of the two catch basins (Drywell Remediation) located outside the east wall of the building and the additional investigative work associated with the two sumps (Sumps Investigation) located in the maintenance department.

## DRYWELL REMEDIATION

Geraghty & Miller and our contractor will provide the necessary equipment and labor for the removal the sediments in the two catch basins and for the pressure washing of the interiors of the catch basins. The removed sediments and associated washwater will be placed in fifty-five (55) gallon drums. Geraghty & Miller will provide the estimated three (3) drums necessary to contain the waste generated from this remediation work. Sulzer Metco will be responsible for the proper disposal of the drums.

## SUMPS INVESTIGATION

Geraghty & Miller and our contractor will perform the additional investigation work of the two sumps located in the maintenance department. Three borings will be advanced adjacent to each sump (for a total of six borings) using a geoprobe mounted on the back of a heavy duty utility cart. A concrete drill will be used to penetrate the concrete slab and construction debris reported to be beneath the concrete slab. An air chisel will also be available to penetrate the construction debris if the concrete drill fails. Each boring will be advanced to two feet below the invert of the sumps (approximately 6 feet below the concrete floor) and soil samples will be collected by hydraulically hammering a large bore sampler into the subsurface. The large bore samplers are an open tube design and measure approximately 2 inches in diameter by 24 inches in length. The samplers are fitted with a removable cutting shoe and a disposable clear acetate liner. The soil collected within the sampler will not come into direct contact with the interior of the sampler but will be stored in the acetate liner.

from each of the six borings

The soil collected in each large bore sampler will be placed in a jar for field screening of VOCs. The jar will be covered with aluminum foil, sealed with a Teflon-lined, screw-on lid, and allowed to equilibrate for approximately 15 minutes. The foil will then be pierced and the headspace above the sample screened with a photoionization detector for the presence of VOCs. Soil collected from the worse case sample (based on the field screening) will be placed into the appropriate sample jars, and stored on ice at a temperature of 4° Celsius until delivery to a New York State certified laboratory for VOCs and priority pollutant metals.

analysis for

will be conducted

Geraghty & Miller will also perform an integrity test of the shallower sump to determine if any leaks exist. A two-hour constant head test consisting of the placement of potable water into the sump at a pre-determined level. During the two hour test, accurate measurements will be

The water level will be set as high as possible in order to test the integrity of the seal where the sump meets the floor.

taken and recorded. Any additional water added will also be measured and recorded. For the purpose of an accurate constant head test, the influent and effluent pipes will need to be temporarily sealed off prior to the placement of potable water. Geraghty & Miller will need to coordinate this with the production personnel to avoid any problems or delays.

**SUMMARY REPORT**

Upon completion of this work, a report summarizing our findings and conclusions will be submitted. Should any additional remediation be required as a result of the sumps investigation, Geraghty & Miller will provide a recommendation to complete this work.

Sincerely,

GERAGHTY & MILLER, INC.

Tom C. Eng, CIH
Principal Engineer

Tom Lobasso TCE

Tom Lobasso
Vice President

GERAGHTY & MILLER, INC.
Environmental Services

Ground Water | Hydrocarbon | Remediation | Education

Fax# 516-249-7610
Date: 4/11/94
Time sent: 5pm
Fax No.: 938-2336

To: Joe Macri
Metco

From: Torie Kramer

The accompanying document consists of the following item(s):
Here is the scope & proposed Scope of Work for excavation at the Duffys Avenue Recharge Basin. I got these costs from Zebra, who did the drilling. Let me know if you

Total No. of Pages: 3 (including this page)

Please call _____ at 516-249-7600,
Ext. _____. Or Direct Dial: 516-391-5_____
516-420-5_____
if you have not received all of document.

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Have any questions, or if the Contractor wants/needs more information.

G&M Project No.: NY0747.005

125 East Bethpage Road • Plainview, New York 11803 • (516) 249-7600 • FAX (516) 249-7610

APR-11-94 MON 17:04 GERAGHTY & MILLER INC. FAX NO. 5162497610 P.01

GERAGHTY & MILLER, INC.
*Environmental Services*

cc: Herb Ingham

*Ground Water* *Hydrocarbon* *Remediation* *Education*

Fax# 516-249-0033
Date: January 24, 1994
Time sent:
Fax No.: 203-762-1434

To: Charlie Heinzer
Perkin-Elmer
From: Josie Framer

The accompanying document consists of the following item(s):

Re: Data from Duffy Avenue & Nilsen Place. Call if you have any questions

Total No. of Pages: 6 (including this page)

Please call _____ at 516-249-7600,
Ext. _____, Or Direct Dial: 516-391-5_____
516-420-5_____
if you have not received all of document.

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G&M Project No.: NY0747.004

125 East Bethpage Road • Plainview, New York 11803 • (516) 249-7600 • FAX (516) 249-7610

**TABLE 1.0**
**30930-1404**
**GERAGHTY & MILLER**
**EPA TCL VOLATILE ORGANICS**

**Aqueous**

All values are ug/L.

| | Sample Identification | | |
|---|---|---|---|
| Dilution Factor | 1.0 | 1.0 | |
| Method Blank I.D. | VBLKBB | VBLKBB | |
| Compound | Method Blank | TB 091693 (TRIP BLANK) | Quantitation Limits with no Dilution |
| Chloromethane | U | U | 10 |
| Bromomethane | U | U | 10 |
| Vinyl Chloride | U | U | 10 |
| Chloroethane | U | U | 10 |
| Methylene Chloride | U | U | 10 |
| Acetone | U | U | 10 |
| Carbon Disulfide | U | U | 10 |
| 1,1-Dichloroethene | U | U | 10 |
| 1,1-Dichloroethane | U | U | 10 |
| 1,2-Dichloroethene (total) | U | U | 10 |
| Chloroform | U | U | 10 |
| 1,2-Dichloroethane | U | U | 10 |
| 2-Butanone | U | U | 10 |
| 1,1,1-Trichloroethane | U | U | 10 |
| Carbon Tetrachloride | U | U | 10 |
| Bromodichloromethane | U | U | 10 |
| 1,2-Dichloropropane | U | U | 10 |
| cis-1,3-Dichloropropene | U | U | 10 |
| Trichloroethene | U | U | 10 |
| Dibromochloromethane | U | U | 10 |
| 1,1,2-Trichloroethane | U | U | 10 |
| Benzene | U | U | 10 |
| trans-1,3-Dichloropropene | U | U | 10 |
| Bromoform | U | U | 10 |
| 4-Methyl-2-pentanone | U | U | 10 |
| 2-Hexanone | U | U | 10 |
| Tetrachloroethene | U | U | 10 |
| 1,1,2,2-Tetrachloroethane | U | U | 10 |
| Toluene | U | U | 10 |
| Chlorobenzene | U | U | 10 |
| Ethylbenzene | U | U | 10 |
| Styrene | U | U | 10 |
| Xylene (total) | U | U | 10 |

U - See Appendix for definition.
Note: Sample detection limit = quantitation limit x dilution factor.

TABLE 1.1
30930-1404
GERAGHTY & MILLER
EPA TCL VOLATILE ORGANICS

Aqueous

All values are ug/L.

Sample Identification DUFFYS AVE

| Compound | Method Blank | FB 091693 (FIELD BLANK) | SE OF OUTFALL B-7 | E OF OUTFALL B-2 | B-2 MS | B-2 MSD | Quantitation Limits with no Dilution |
|---|---|---|---|---|---|---|---|
| Dilution Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Method Blank I.D. | VBLKBC | VBLKBC | VBLKBC | VBLKBC | VBLKBC | VBLKBC | |
| Chloromethane | U | U | U | U | U | U | 10 |
| Bromomethane | U | U | U | U | U | U | 10 |
| Vinyl Chloride | U | U | U | U | U | U | 10 |
| Chloroethane | U | U | U | U | U | U | 10 |
| Methylene Chloride | U | U | U | U | U | U | 10 |
| Acetone | U | 10 | 42 | 13 | 16 | 9J | 10 |
| Carbon Disulfide | U | U | U | U | U | U | 10 |
| 1,1-Dichloroethene | U | U | U | U | 43 X | 46 X | 10 |
| 1,1-Dichloroethane | U | U | U | U | U | U | 10 |
| 1,2-Dichloroethene (total) | U | U | U | U | U | U | 10 |
| Chloroform | U | U | U | U | U | U | 10 |
| 1,2-Dichloroethane | U | U | U | U | U | U | 10 |
| 2-Butanone | U | U | U | U | U | U | 10 |
| 1,1,1-Trichloroethane | U | U | U | U | U | U | 10 |
| Carbon Tetrachloride | U | U | U | U | U | U | 10 |
| Bromodichloromethane | U | U | U | U | U | U | 10 |
| 1,2-Dichloropropane | U | U | U | U | U | U | 10 |
| cis-1,3-Dichloropropene | U | U | U | U | U | U | 10 |
| Trichloroethene | U | U | U | 3J | 46 X | 49 X | 10 |
| Dibromochloromethane | U | U | U | U | U | U | 10 |
| 1,1,2-Trichloroethane | U | U | U | U | U | U | 10 |
| Benzene | U | U | U | U | 46 X | 48 X | 10 |
| trans-1,3-Dichloropropene | U | U | U | U | U | U | 10 |
| Bromoform | U | U | U | U | U | U | 10 |
| 4-Methyl-2-pentanone | U | U | U | U | U | U | 10 |
| 2-Hexanone | U | U | U | U | U | U | 10 |
| Tetrachloroethene | U | U | U | U | U | U | 10 |
| 1,1,2,2-Tetrachloroethane | U | U | U | U | U | U | 10 |
| Toluene | U | U | U | U | 42 X | 47 X | 10 |
| Chlorobenzene | U | U | U | U | 45 X | 51 X | 10 |
| Ethylbenzene | U | U | U | U | U | U | 10 |
| Styrene | U | U | U | U | U | U | 10 |
| *Xylene (total)* | U | U | U | U | U | U | 10 |

U, X, J - See Appendix for definition.
Note: Sample detection limit = quantitation limit x dilution factor.

## APPENDIX

U - Indicates that the compound was analyzed for but not detected.

J - Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B - This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N - Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S - Estimated due to surrogate outliers.

X - Matrix spike compound.

(1) - Cannot be separated.

(2) - Decomposes to azobenzene. Measured and calibrated as azobenzene.

A - This flag indicates that a TIC is a suspected aldol condensation product.

E - Indicates that it exceeds calibration curve range.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C - Confirmed by GC/MS.

T - Compound present in TCLP blank.

P - This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

**TABLE 3.0**
**30930-1404**
**GERAGHTY & MILLER**
**MISCELLANEOUS METALS**

MILLER PLACE

All values are mg/Kg dry basis.

| Parameter | B-18(30') | B-18(50') | B-18(75) |
|---|---|---|---|
| Aluminum | 1,330 | 712 | 663 |
| Chromium | 10.1 | 1.2B | 2.1B |
| Copper | 14.1 | 1.5U | 2.1B |
| Nickel | 15.0 | 4.9B | 2.5U |

B, U - See Metals Appendix for definition.

## APPENDIX/INORGANICS DATA

### C - Concentration qualifiers

U - Indicates analyte result less than instrument detection limit (IDL)

B - Indicates analyte result between IDL and contract required detection limit (CRDL)

### Q - QC qualifiers

E - Reported value is estimated because of the presence of interference

M - Duplicate injection precision not met

N - Spiked sample recovery not within control limits

S - The reported value was determined by the method of standard additions (MSA)

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance

* - Duplicate analysis not within control limit

+ - Correlation coefficient for MSA is less than 0.995

### M - Method codes

P - ICP

A - Flame AA

F - Furnace AA

CV - Cold vapor AA (manual)

C - Cyanide

NR - Not Required

NC - Not Calculated as per protocols

GERAGHTY
& MILLER, INC.
*Environmental Services*

A Heidemij company

March 1, 1995

Jamie Ascher
New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation
SUNY, Building 40
Stony Brook, New York 11790-2356

Agnes Gara
Assistant Sanitary Engineer
New York State Department of Environmental Conservation
SUNY Building 40
Stony Brook, New York 11790-2356

RE: Transmittal of Soil Quality Results from the Metco Facility, 325 Duffys Avenue, Hicksville, New York.

Dear Mr. Ascher and Ms. Gara:

At the request of The Perkin-Elmer Corporation, Geraghty & Miller, Inc. is enclosing one copy of the report detailing the remediation of soils impacted with polychlorinated biphenyls (PCBs) from below a dry well located at the Metco Facility, 325 Duffys Avenue, Hicksville, New York. This work was conducted as specified in the terms and conditions for the sale of Perkin-Elmer's Metco Division to Sulzer.

The scope of work conducted included the removal of approximately 22 cubic yards of soil from below a dry well located in the loading dock area of the site. The soils were removed to a depth of approximately 20 to 22 ft below grade. One post excavation sample was collected and analyzed in the field for total PCBs and one post excavation sample was collected and submitted to IEA laboratories of Monroe Connecticut for confirmatory analyses. As detailed in the attached letter report, the analytical results of the post excavation soil samples indicate that the PCBs detected in the soils remaining on-site are present at concentrations below the NYSDEC Recommended Soil Cleanup Objective of 10 parts per million (ppm) for sub-surface soils.

GERAGHTY
& MILLER, INC.
*Environment and Infrastructure*

a **heidemij** company

December 18, 1997

Richard G. Rudolf, Esquire
Sulzer U.S. Holding Inc.
200 Park Avenue
New York, New York 10166-0068

RE: Proposal for Remediation and Investigation Work at the 325 Duffy Avenue Facility.

Dear Mr. Rudolf:

Geraghty & Miller, Inc. is pleased to provide Sulzer U.S. Holding Inc. with this proposal to conduct the remediation and investigation work at the 325 Duffy Avenue facility, located in Hicksville, NY. Geraghty & Miller will perform the remediation and investigation work in the two areas specified by ERM-Northeast in their correspondence dated November 26,1997. The scope of work is as follows:

**Drywell Remediation**

Geraghty & Miller will remove the sediments in the two catch basins located outside the east wall of the facility. After the sediments have been removed, the interior of the catch basins will be pressure washed. The removed sediments and associated washwater will be properly disposed of by Sulzer Metco.

**Sumps Investigation**

Geraghty & Miller will contract a driller and provide oversight for the investigation of the two sumps located in the maintenance department. Three borings will be advanced adjacent to each sump. Each boring will extend two feet below the invert of the sumps and soil samples will be collected using a split spoon sampler. Each soil sample will be screened using a photoionization detector and one worst case sample from each boring will be analyzed by a New York State certified laboratory for priority pollutant metals and volatile organic compounds. Geraghty & Miller will also perform an integrity test of the shallower sump to determine if any leaks exist.

Geraghty & Miller will prepare a workplan to perform this scope of work. Upon completion of this work, a report summarizing our findings and conclusions will be submitted. Should any additional remediation by required as a result of the sumps investigation, Geraghty & Miller will provide a recommendation to complete this work. The cost for completing the scope of work is $15,000 including labor, contractors and expenses. If this is agreeable, please sign the acceptance line below and fax it to my attention at (516) 249-7610. Should you have any questions, please call me (Tom Eng) at 391-5285.

Sincerely,
GERAGHTY & MILLER, INC.

Tom C. Eng, CIH
Principal Engineer

Tom Lobasso
Vice President

Acceptance

C: Michael S. Lydon

G:\technical\proposal\sulzerrw.DOC

*Attorney Client Privileged*

SULZER
Technology Corporation

# FAX TRANSMISSION COVER SHEET

Sulzer US Holding Inc.
200 Park Avenue
New York, NY 10166-0068
Phone (212) 949-0999
Fax (212) 681-0533

TO: Tom Eng / Larry Miles

COMPANY NAME: _____

COMPANY'S FAX: _____

FROM: R. Rudolf

DATE: 1/9/97

TOTAL NUMBER OF PAGES INCLUDING COVER PAGE: ____

Please call (212) 949-0999, if any pages were not received or are illegible. Thank you.

NOTE: The information in this facsimile message is CONFIDENTIAL and intended only for the use of the individual identified above. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this is strictly prohibited. If you have received this communication in error, please immediately notify us by telephone, and return the original message to us at the above address via the U.S. Postal service.

# ARCADIS GERAGHTY & MILLER

OCTOBER 16, 1998
INVOICE NO. 14261
PROJECT NO. NY001110.0004

SULZER METCO, INC.
ATTN: MCIHAEL S. LYDON
1101 PROSPECT AVE.
WEST BURY, NY 11590-0201

PROFESSIONAL SERVICES FOR THE PERIOD ENDING OCTOBER 2, 1998

SULZERMET/DUFFY AVE SUMP INVESTIGATION
DUFFY AVE SUMP INVESTIGATION

| | SERVICES | EXPENSES | TOTAL |
|---|---|---|---|
| TOTAL THIS INVOICE | 2,893.20 | | 2,893.20 |

Please Remit To: ARCADIS Geraghty & Miller, Inc.
Dept. 547, Denver, Colorado 80291-0547, 303.294.1200

TERMS: Net 30 days.
A charge of 1 1/2% per month
will be added on past due accounts.

# ARCADIS GERAGHTY & MILLER

INVOICE NO. 14261
PROJECT NO. NY001110.0004


SULZERMET/DUFFY AVE SUMP INVESTIGATION

FOR: DUFFY AVE SUMP INVESTIGATION

PROFESSIONAL SERVICES FOR THE PERIOD ENDING OCTOBER 2, 1998

PROFESSIONAL PERSONNEL

| | HOURS | RATE | AMOUNT | |
|---|---|---|---|---|
| STAFF SCI/ENG II | | | | |
| SOLIMAN, MARK | 24.7 | 76.00 | 1,877.20 | |
| PROJECT STAFF II | | | | |
| NETUSCHIL, GLENN | 9.0 | 105.00 | 945.00 | |
| SR PROJ STAFF II | | | | |
| VERNICK, ARNOLD | 0.5 | 142.00 | 71.00 | |
| TOTAL | 34.2 | | | |
| | | TOTAL LABOR | 2,893.20 | 2,893.20 |
| | | | TOTAL THIS INVOICE | $ 2,893.20 |

Please Remit To: ARCADIS Geraghty & Miller, Inc.
Dept. 547, Denver, Colorado 80291-0547, 303.294.1200

TERMS: Net 30 days.
A charge of 1 1/2% per month
will be added on past due accounts.

**SULZER METCO**

# Telefax

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone: (516) 334-1300
Fax: (516) 338-2477

Place, date: Westbury, November 10, 1998

To: Rick Rudolf
Sulzer Inc.
Fax: (212) 661-0533

From: Michael S. Lydon
Fax: (516) 338-2336
Phone: (516) 338-2139

Copy to:

Total pages: 7

**Re: Remediation Work for the Duffy Avenue Facility**

Attached please find the Summary and Recommendations letter for the Duffy Avenue facility from Arcadis Geraghty & Miller.

Thank you.

Michael S. Lydon
Facilities Department

November 3, 1998

Mr. Michael S. Lydon
Sulzer Metco (US) Inc.
1101 Prospect Ave.
Westbury, NY 11590-0201

Subject: Sumps Remediation at the 325 Duffy Avenue Facility, Hicksville, NY

Dear Mr. Lydon:

ARCADIS Geraghty & Miller, Inc. and GM Consulting Engineers, P.C. were retained by Sulzer Metco (US) Inc. to remediate two indoor maintenance room sumps, Sumps 1 and 2, located at the 325 Duffy Avenue facility in Hicksville, New York. Sump 1 is located at the northern end of the maintenance department and was referred to as Sump A in a Phase II Site Investigation report by ERM-Northeast (dated November 19, 1997). Sump 2 is located at the southern end of the maintenance department and was referred to as Sump B in the ERM-Northeast report. The remediation of the sump areas consisted of the excavation and disposal of soil and concrete and the restoration of the sump areas. ARCADIS Geraghty & Miller retained Trade-Winds Environmental Restoration, Inc. to perform the excavation, soil and concrete disposal, and restoration activities. The following summarizes the work performed and includes a recommendation for the work to be completed.

Soil impacted by priority pollutant metals was excavated and removed from Sumps 1 and 2. The Sump 1 excavation was 8 feet by 8 feet with a depth of approximately 7.5 feet below floor slab. The original Sump 2 excavation was 7.5 feet by 7.5 feet with a depth of 7.5 feet below floor slab. Four sidewall and one endpoint soil samples were collected from each excavation and analyzed by Ecotest Laboratories using United States Environmental Protection Agency (USEPA) Method 6010 for priority pollutant metals. Analytical results were compared to New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) 4046 Criteria and Eastern USA Background.

The Sump 1 sidewall and endpoint soil sample data exhibited no exceedances of the TAGM 4046 Criteria and therefore, this area was backfilled with certified clean fill and restored. The analytical results for the Sump 1 sidewall and endpoint soil samples are summarized in Table 1. The excavation at Sump 2 was expanded 7 feet in each compass direction and 2 feet in depth (maximum depth attainable by the excavator) after the sidewall and endpoint soil samples from the original excavation exhibited concentrations of copper and nickel above the NYSDEC TAGM 4046 Criteria. A total of approximately 55 cubic yards of impacted soil was excavated

from the Sump 2 area. An additional four sidewall and one endpoint soil samples were collected and analyzed for priority pollutant metals. Endpoint soil sample, S2 E' (FLOOR), exhibited copper and nickel exceedances of the NYSDEC TAGM 4046 Criteria. The first round of Sump 2 sidewall and endpoint soil sample data is provided in Table 2 and the second round in Table 3.

ARCADIS Geraghty & Miller has reviewed the soil sample analytical results from the floor and sidewalls of the additional excavation performed at Sump 2 and recommends restoring the Sump 2 area and taking no further action based on the following reasons:

- The depth of the excavation is at the limit of reach of the largest excavator capable of entering the facility.
- There is potential to cause structural damage to a nearby bearing wall if the excavation were to extend deeper.
- Once the sump is restored and passes a leak test, the mobility of the metals in the soil will be minimal since the mechanism of transport (leaking fluid) will have been eliminated.
- There is no potential for direct exposure, since the soil is under the concrete floor within the building and all potential pathways will have been eliminated.

If you have any questions or comments please feel free to call Glenn Netuschil at (516) 391-5207.

Sincerely,

ARCADIS Geraghty & Miller, Inc.

Glenn Netuschil

Glenn Netuschil, P.E.
Project Engineer/Project Manager

GM Consulting Engineers, P.C.

Arnold S. Vernick, P.E.
President

**Table 1: Sump 1, Priority Pollutant Metals Analytical Results of Sidewall and Endpoint Soil Samples, Maintenance Room Sulzer Metco, Duffy Avenue, Hicksville, New York.**

| Analytical Parameters | New York State Recommended Soil Cleanup Objectives[1] (mg/kg) | USGS Site Background for Eastern U.S. Estimated Arithmetic Mean (mg/kg) | Depth to Sump Bottom = 4' - 8" Sample ID: | S1 A | S1 B | S1 C | S1 D | S1 E |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Interval*: | 4' | 4' | 4' | 4' | FLOOR |
| | | | Date Sampled: | 10/12/98 | 10/12/98 | 10/12/98 | 10/12/98 | 10/12/98 |
| | | | Units: | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Priority Pollutant Metals | | | | | | | | |
| Antimony | SB | 0.76 | | <1 | <1 | <1 | <1 | <1 |
| Arsenic | 7.5 | 7.4 | | 0.74 | 0.66 | 1.4 | 0.83 | 0.63 |
| Beryllium | 0.16 | 0.85 | | 0.11 | 0.1 | 0.05 | 0.05 | <0.05 |
| Cadmium | 10 | -- | | <0.26 | <0.26 | <0.26 | <0.26 | <0.26 |
| Chromium | 50 | 52 | | 3.9 | 3.8 | 5.1 | 4.4 | 1.6 |
| Copper | 25 | 22 | | 3.2 | 2.8 | 3.2 | 5.2 | 2.4 |
| Lead | -- | 17 | | 1.8 | 1.9 | 3.7 | 7 | 2.4 |
| Mercury | SB | 0.12 | | 0.0078 | <0.005 | <0.005 | 0.0075 | <0.005 |
| Nickel | 13 | 18 | | 5.1 | 3.5 | 1.7 | <0.5 | 2.3 |
| Selenium | 2 | 0.45 | | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 |
| Silver | SB | -- | | <0.26 | <0.26 | <0.26 | <0.26 | <0.26 |
| Thallium | SB | -- | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Zinc | 20 | 52 | | 4.5 | 4.5 | 2.4 | 10.1 | 4.3 |

NOTES:

* Sampling Intervals represent the depth below the top of concrete slab.

Analysis performed by Ecotest Laboratories, North Babylon, NY using USEPA Method 6010 (7000 series) for Priority Pollutant Metals.

Bold entries represent concentrations above either standard.

| | |
|---|---|
| mg/kg | Milligrams per kilogram. |
| ' | Feet |
| " | Inches |
| NYSDEC | New York State Department of Environmental Conservation. |
| USGS | United States Geological Survey |
| SB | Site Background |
| -- | Criteria not available. |
| 1 | NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) #4046 |

**Table 2: Sump 2 Original Excavation, Priority Pollutant Metals Analytical Results of the Sidewall and Endpoint Soil Samples, Maintenance Room**
**Sulzer Metco, Duffy Avenue, Hicksville, New York.**

| Analytical Parameters | New York State Recommended Soil Cleanup Objectives[1] (mg/kg) | USGS Site Background for Eastern U.S. Estimated Arithmetic Mean (mg/kg) | Depth to Sump Bottom = 2' - 2" Sample ID: | S2 A | S2 B | S2 C | S2 D | S2 E |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Interval*: | 4' | 4' | 4' | 4' | FLOOR |
| | | | Date Sampled: | 10/8/98 | 10/8/98 | 10/8/98 | 10/8/98 | 10/8/98 |
| | | | Units: | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Priority Pollutant Metals | | | | | | | | |
| Antimony | SB | 0.76 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Arsenic | 7.5 | 7.4 | | <0.5 | 0.86 | <0.5 | <0.5 | 0.74 |
| Beryllium | 0.16 | 0.85 | | 0.09 | 0.1 | 0.05 | 0.05 | 0.05 |
| Cadmium | 10 | -- | | <0.25 | <0.25 | <0.25 | <0.25 | <0.27 |
| Chromium | 50 | 52 | | 4 | 6.6 | 6.6 | 4.1 | 25 |
| Copper | 25 | 22 | | **28** | **24** | **36** | **66** | **47** |
| Lead | -- | 17 | | 1.7 | 2 | 1.7 | 1.9 | 13 |
| Mercury | SB | 0.12 | | 0.0077 | 0.013 | <0.005 | 0.005 | 0.0066 |
| Nickel | 13 | 18 | | 10 | **26** | 11 | **26** | **19** |
| Selenium | 2 | 0.45 | | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 |
| Silver | SB | -- | | <0.25 | <0.25 | <0.25 | <0.25 | <0.25 |
| Thallium | SB | -- | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Zinc | 20 | 52 | | 5.5 | 6.2 | 6.4 | 6.3 | 7.1 |

NOTES:

* Sampling Intervals represent the depth below the top of concrete slab.

Analysis performed by Ecotest Laboratories, North Babylon, NY using USEPA Method 6010 (7000 series) for Priority Pollutant Metals.

Bold entries represent concentrations above either standard.

| | |
|---|---|
| mg/kg | Milligrams per kilogram. |
| ' | Feet |
| " | Inches |
| NYSDEC | New York State Department of Environmental Conservation. |
| USGS | United States Geological Survey |
| SB | Site Background |
| -- | Criteria not available. |
| 1 | NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) #4046 |

**Table 3: Sump 2 Expanded Excavation, Priority Pollutant Metals Analytical Results of Sidewall and Endpoint Soil Samples, Maintenance Room**
**Sulzer Metco, Duffy Avenue, Hicksville, New York.**

| Analytical Parameters | New York State Recommended Soil Cleanup Objectives[1] (mg/kg) | USGS Site Background for Eastern U.S. Estimated Arithmetic Mean (mg/kg) | Depth to Sump Bottom = 2' - 2" Sample ID: | S2 A' | S2 B' | S2 C' | S2 D' | S2 E' |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Interval*: | 4' | 4' | 4' | 4' | FLOOR |
| | | | Date Sampled: | 10/27/98 | 10/27/98 | 10/27/98 | 10/27/98 | 10/22/98 |
| | | | Units: | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Priority Pollutant Metals | | | | | | | | |
| Antimony | SB | 0.76 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Arsenic | 7.5 | 7.4 | | <0.25 | <0.25 | <0.25 | <0.25 | 0.52 |
| Beryllium | 0.16 | 0.85 | | 0.05 | 0.051 | 0.051 | 0.05 | 0.081 |
| Cadmium | 10 | – | | <0.25 | <0.25 | <0.25 | <0.25 | 0.14 |
| Chromium | 50 | 52 | | 2.1 | 2.8 | 1.5 | 1.7 | 2.8 |
| Copper | 25 | 22 | | 7.3 | 6.1 | 0.06 | 2.5 | **120** |
| Lead | – | 17 | | 1.6 | 1.4 | 1.2 | 0.81 | 0.79 |
| Mercury | SB | 0.12 | | <0.04 | <0.02 | <0.02 | <0.02 | <0.005 |
| Nickel | 13 | 18 | | 13 | 13 | 3.6 | 3.3 | **30** |
| Selenium | 2 | 0.45 | | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 |
| Silver | SB | – | | <0.25 | <0.25 | <0.25 | <0.25 | <0.05 |
| Thallium | SB | – | | <0.5 | <0.5 | <0.5 | <0.5 | <0.1 |
| Zinc | 20 | 52 | | 3.9 | 4 | 3.6 | 2.2 | 6.6 |

NOTES:

* Sampling intervals represent the depth below the top of concrete slab.

Analysis performed by Ecotest Laboratories, North Babylon, NY using USEPA Method 6010 (7000 series) for Priority Pollutant Metals.

Bold entries represent concentrations above either standard.

| | |
|---|---|
| mg/kg | Milligrams per kilogram. |
| ' | Feet |
| " | Inches |
| NYSDEC | New York State Department of Environmental Conservation. |
| USGS | United States Geological Survey |
| SB | Site Background |
| – | Criteria not available. |
| 1 | NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) #4046 |

# ARCADIS GERAGHTY & MILLER

**TELEFAX**

To
Mr. Michael S. Lydon
Environment, Health & Safety
Sulzer Metco (US) Inc.

Copies

ENVIRONMENT

Fax
338-2336

Date
03 November 1998

From
Glenn Netuschil

Total pages
6

Extension
391-5207

Our ref
NY001110.0004

Subject
Remediation Work for the Duffy Avenue Facility

If you do not receive all pages, please call to let us know as soon as possible.

Attached please find the Summary and Recommendation Letter for the Duffy Avenue remediation work. Please call if you have any questions. Thank you.

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL, AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW.
If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the above address via the U.S. postal service.

# ARCADIS GERAGHTY&MILLER

November 3, 1998

Mr. Michael S. Lydon
Sulzer Metco (US) Inc.
1101 Prospect Ave.
Westbury, NY 11590-0201

Subject: Sumps Remediation at the 325 Duffy Avenue Facility, Hicksville, NY

Dear Mr. Lydon:

ARCADIS Geraghty & Miller, Inc. and GM Consulting Engineers, P.C. were retained by Sulzer Metco (US) Inc. to remediate two indoor maintenance room sumps, Sumps 1 and 2, located at the 325 Duffy Avenue facility in Hicksville, New York. Sump 1 is located at the northern end of the maintenance department and was referred to as Sump A in a Phase II Site Investigation report by ERM-Northeast (dated November 19, 1997). Sump 2 is located at the southern end of the maintenance department and was referred to as Sump B in the ERM-Northeast report. The remediation of the sump areas consisted of the excavation and disposal of soil and concrete and the restoration of the sump areas. ARCADIS Geraghty & Miller retained Trade-Winds Environmental Restoration, Inc. to perform the excavation, soil and concrete disposal, and restoration activities. The following summarizes the work performed and includes a recommendation for the work to be completed.

Soil impacted by priority pollutant metals was excavated and removed from Sumps 1 and 2. The Sump 1 excavation was 8 feet by 8 feet with a depth of approximately 7.5 feet below floor slab. The original Sump 2 excavation was 7.5 feet by 7.5 feet with a depth of 7.5 feet below floor slab. Four sidewall and one endpoint soil samples were collected from each excavation and analyzed by Ecotest Laboratories using United States Environmental Protection Agency (USEPA) Method 6010 for priority pollutant metals. Analytical results were compared to New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) 4046 Criteria and Eastern USA Background.

The Sump 1 sidewall and endpoint soil sample data exhibited no exceedances of the TAGM 4046 Criteria and therefore, this area was backfilled with certified clean fill and restored. The analytical results for the Sump 1 sidewall and endpoint soil samples are summarized in Table 1. The excavation at Sump 2 was expanded 7 feet in each compass direction and 2 feet in depth (maximum depth attainable by the excavator) after the sidewall and endpoint soil samples from the original excavation exhibited concentrations of copper and nickel above the NYSDEC TAGM 4046 Criteria. A total of approximately 55 cubic yards of impacted soil was excavated

from the Sump 2 area. An additional four sidewall and one endpoint soil samples were collected and analyzed for priority pollutant metals. Endpoint soil sample, S2 E' (FLOOR), exhibited copper and nickel exceedances of the NYSDEC TAGM 4046 Criteria. The first round of Sump 2 sidewall and endpoint soil sample data is provided in Table 2 and the second round in Table 3.

ARCADIS Geraghty & Miller has reviewed the soil sample analytical results from the floor and sidewalls of the additional excavation performed at Sump 2 and recommends restoring the Sump 2 area and taking no further action based on the following reasons:

- The depth of the excavation is at the limit of reach of the largest excavator capable of entering the facility.
- There is potential to cause structural damage to a nearby bearing wall if the excavation were to extend deeper.
- Once the sump is restored and passes a leak test, the mobility of the metals in the soil will be minimal since the mechanism of transport (leaking fluid) will have been eliminated.
- There is no potential for direct exposure, since the soil is under the concrete floor within the building and all potential pathways will have been eliminated.

If you have any questions or comments please feel free to call Glenn Netuschil at (516) 391-5207.

Sincerely,

ARCADIS Geraghty & Miller, Inc.

Glenn Netuschil, P.E.
Project Engineer/Project Manager

GM Consulting Engineers, P.C.

Arnold S. Vernick, P.E.
President

**Table 1: Sump 1, Priority Pollutant Metals Analytical Results of Sidewall and Endpoint Soil Samples, Maintenance Room**
**Sulzer Metco, Duffy Avenue, Hicksville, New York.**

| Analytical Parameters | New York State Recommended Soil Cleanup Objectives[1] (mg/kg) | USGS Site Background for Eastern U.S. Estimated Arithmetic Mean (mg/kg) | Depth to Sump Bottom = 4' - 8" Sample ID: | S1 A | S1 B | S1 C | S1 D | S1 E |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Interval*: | 4' | 4' | 4' | 4' | FLOOR |
| | | | Date Sampled: | 10/12/98 | 10/12/98 | 10/12/98 | 10/12/98 | 10/12/98 |
| | | | Units: | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Priority Pollutant Metals | | | | | | | | |
| Antimony | SB | 0.76 | | <1 | <1 | <1 | <1 | <1 |
| Arsenic | 7.5 | 7.4 | | 0.74 | 0.66 | 1.4 | 0.83 | 0.63 |
| Beryllium | 0.16 | 0.85 | | 0.11 | 0.1 | 0.05 | 0.05 | <0.05 |
| Cadmium | 10 | -- | | <0.26 | <0.26 | <0.26 | <0.26 | <0.26 |
| Chromium | 50 | 52 | | 3.9 | 3.8 | 5.1 | 4.4 | 1.6 |
| Copper | 25 | 22 | | 3.2 | 2.8 | 3.2 | 5.2 | 2.4 |
| Lead | -- | 17 | | 1.8 | 1.9 | 3.7 | 7 | 2.4 |
| Mercury | SB | 0.12 | | 0.0078 | <0.005 | <0.005 | 0.0075 | <0.005 |
| Nickel | 13 | 18 | | 5.1 | 3.5 | 1.7 | <0.5 | 2.3 |
| Selenium | 2 | 0.45 | | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 |
| Silver | SB | -- | | <0.26 | <0.26 | <0.26 | <0.26 | <0.26 |
| Thallium | SB | -- | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Zinc | 20 | 52 | | 4.5 | 4.5 | 2.4 | 10.1 | 4.3 |

NOTES:

* Sampling Intervals represent the depth below the top of concrete slab.

Analysis performed by Ecotest Laboratories, North Babylon, NY using USEPA Method 6010 (7000 series) for Priority Pollutant Metals.

Bold entries represent concentrations above either standard.

| | |
|---|---|
| mg/kg | Milligrams per kilogram. |
| ' | Feet |
| " | Inches |
| NYSDEC | New York State Department of Environmental Conservation. |
| USGS | United States Geological Survey |
| SB | Site Background |
| -- | Criteria not available. |
| 1 | NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) #4046 |

**Table 2: Sump 2 Original Excavation, Priority Pollutant Metals Analytical Results of the Sidewall and Endpoint Soil Samples, Maintenance Room Sulzer Metco, Duffy Avenue, Hicksville, New York.**

| Analytical Parameters | New York State Recommended Soil Cleanup Objectives[1] (mg/kg) | USGS Site Background for Eastern U.S Estimated Arithmetic Mean (mg/kg) | Depth to Sump Bottom = 2' - 2" Sample ID: | S2 A | S2 B | S2 C | S2 D | S2 E |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Interval*: | 4' | 4' | 4' | 4' | FLOOR |
| | | | Date Sampled: | 10/8/98 | 10/8/98 | 10/8/98 | 10/8/98 | 10/8/98 |
| | | | Units: | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Priority Pollutant Metals | | | | | | | | |
| Antimony | SB | 0.76 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Arsenic | 7.5 | 7.4 | | <0.5 | 0.86 | <0.5 | <0.5 | 0.74 |
| Beryllium | 0.16 | 0.85 | | 0.09 | 0.1 | 0.05 | 0.05 | 0.05 |
| Cadmium | 10 | -- | | <0.25 | <0.25 | <0.25 | <0.25 | <0.27 |
| Chromium | 50 | 52 | | 4 | 6.6 | 6.6 | 4.1 | 25 |
| Copper | 25 | 22 | | **28** | **24** | **36** | **66** | **47** |
| Lead | -- | 17 | | 1.7 | 2 | 1.7 | 1.9 | 13 |
| Mercury | SB | 0.12 | | 0.0077 | 0.013 | <0.005 | 0.005 | 0.0066 |
| Nickel | 13 | 18 | | 10 | **26** | 11 | **26** | **19** |
| Selenium | 2 | 0.45 | | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 |
| Silver | SB | -- | | <0.25 | <0.25 | <0.25 | <0.25 | <0.25 |
| Thallium | SB | -- | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Zinc | 20 | 52 | | 5.5 | 6.2 | 6.4 | 6.3 | 7.1 |

NOTES:

* Sampling Intervals represent the depth below the top of concrete slab.

Analysis performed by Ecotest Laboratories, North Babylon, NY using USEPA Method 6010 (7000 series) for Priority Pollutant Metals.

Bold entries represent concentrations above either standard.

| | |
|---|---|
| mg/kg | Milligrams per kilogram. |
| ' | Feet |
| " | Inches |
| NYSDEC | New York State Department of Environmental Conservation. |
| USGS | United States Geological Survey |
| SB | Site Background |
| -- | Criteria not available. |
| 1 | NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) #4046 |

**Table 3: Sump 2 Expanded Excavation, Priority Pollutant Metals Analytical Results of Sidewall and Endpoint Soil Samples, Maintenance Room Sulzer Metco, Duffy Avenue, Hicksville, New York.**

| Analytical Parameters | New York State Recommended Soil Cleanup Objectives (mg/kg) | USGS Site Background for Eastern U.S. Estimated Arithmetic Mean (mg/kg) | Depth to Sump Bottom = 2' - 2" Sample ID: | S2 A' | S2 B' | S2 C' | S2 D' | S2 E' |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Interval*: | 4' | 4' | 4' | 4' | FLOOR |
| | | | Date Sampled: | 10/27/98 | 10/27/98 | 10/27/98 | 10/27/98 | 10/22/98 |
| | | | Units: | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) |
| Priority Pollutant Metals | | | | | | | | |
| Antimony | SB | 0.76 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Arsenic | 7.5 | 7.4 | | <0.25 | <0.25 | <0.25 | <0.25 | 0.52 |
| Beryllium | 0.16 | 0.85 | | 0.05 | 0.051 | 0.051 | 0.05 | 0.081 |
| Cadmium | 10 | -- | | <0.25 | <0.25 | <0.25 | <0.25 | 0.14 |
| Chromium | 50 | 52 | | 2.1 | 2.8 | 1.5 | 1.7 | 2.8 |
| Copper | 25 | 22 | | 7.3 | 6.1 | 0.06 | 2.5 | **120** |
| Lead | -- | 17 | | 1.6 | 1.4 | 1.2 | 0.81 | 0.79 |
| Mercury | SB | 0.12 | | <0.04 | <0.02 | <0.02 | <0.02 | <0.005 |
| Nickel | 13 | 18 | | 13 | 13 | 3.6 | 3.3 | **30** |
| Selenium | 2 | 0.45 | | <0.4 | <0.4 | <0.4 | <0.4 | <0.4 |
| Silver | SB | -- | | <0.25 | <0.25 | <0.25 | <0.25 | <0.05 |
| Thallium | SB | -- | | <0.5 | <0.5 | <0.5 | <0.5 | <0.1 |
| Zinc | 20 | 52 | | 3.9 | 4 | 3.6 | 2.2 | 6.6 |

NOTES:

* Sampling Intervals represent the depth below the top of concrete slab.

Analysis performed by Ecotest Laboratories, North Babylon, NY using USEPA Method 6010 (7000 series) for Priority Pollutant Metals.

Bold entries represent concentrations above either standard.

| | |
|---|---|
| mg/kg | Milligrams per kilogram. |
| ' | Feet |
| " | Inches |
| NYSDEC | New York State Department of Environmental Conservation. |
| USGS | United States Geological Survey |
| SB | Site Background |
| -- | Criteria not available. |
| 1 | NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) #4046 |

**SULZER METCO**

# Telefax

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone: (516) 334-1300
Fax: (516) 338-2477

Place, date: Westbury, November 10, 1998

To: Rick Rudolf
Sulzer Inc.
Fax: (212) 661-0533

From: Michael S. Lydon
Fax: (516) 338-2336
Phone: (516) 338-2139

Copy to:

Total pages: 7

**Re: Remediation Work for the Duffy Avenue Facility**

Attached please find the Summary and Recommendations letter for the Duffy Avenue facility from Arcadis Geraghty & Miller.

Thank you.

Michael S. Lydon
Facilities Department

Form Approved OMB No. 2050-0072

# Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

*Specific Information by Chemical*

**Facility Identification**
Name Sulzer Metco (U.S.), Inc.
Street 220 Miller Place
City Hicksville County Nassau State NY Zip 11801
SIC Code 3499 Dun & Brad Number 152084398

FOR OFFICIAL USE ONLY
ID #
Date Received

**Owner/Operator Name**
Name Sulzer Metco (U.S.), Inc. Phone (516) 334-1300
Mail Address 1101 Prospect Avenue, Westbury, NY 11590

**Emergency Contact**
Name N/a Title
Phone 24 Hr. Phone
Name Title
Phone 24 Hr. Phone

*Important: Read all instructions before completing form*

Reporting Period From January 1 to December 31, 20 04

[ ] Check if information below is identical to the information submitted last year.

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Container Type | Pressure | Temperature | Storage Codes and Locations (Non-Confidential) Storage Locations | Optional |
|---|---|---|---|---|---|---|---|
| CAS Various Trade Secret<br>Chem. Name Aluminum-based powders<br>Check all that apply [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name N/a | [X] Fire<br>[ ] Sudden Release of Pressure<br>[X] Reactivity<br>[X] Immediate (acute)<br>[ ] Delayed (chronic) | Max. Daily Amount (code) 0 5<br>Avg. Daily Amount (code) 0 4<br>No. of Days On-site (days) 2 4 0 | D<br>N<br>R<br>E<br>I | 1<br>1<br>1<br>1<br>1 | 4<br>4<br>4<br>4<br>4 | Warehouse & Production Floor<br>Production Floor<br>Prod'n Floor, Hardened Steel Hoppers<br>Warehouse & Production Floor<br>Warehouse & Production Floor | [ ] |
| CAS Various Trade Secret<br>Chem. Name Nickel-based powders<br>Check all that apply [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name N/a | [ ] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | Max. Daily Amount (code) 0 5<br>Avg. Daily Amount (code) 0 5<br>No. of Days On-site (days) 2 4 0 | D<br>N<br>R<br>E<br>I | 1<br>1<br>1<br>1<br>1 | 4<br>4<br>4<br>4<br>4 | Warehouse & Production Floor<br>Production Floor<br>Prod'n Floor, Hardened Steel Hoppers<br>Warehouse & Production Floor<br>Warehouse & Production Floor | [ ] |
| CAS 7727-37-9 Trade Secret<br>Chem. Name Nitrogen, Cryogenic Liquid<br>Check all that apply [X] Pure [ ] Mix [ ] Solid [X] Liquid [ ] Gas [ ] EHS<br>EHS Name N/a | [ ] Fire<br>[X] Sudden Release of Pressure<br>[ ] Reactivity<br>[X] Immediate (acute)<br>[ ] Delayed (chronic) | Max. Daily Amount (code) 0 4<br>Avg. Daily Amount (code) 0 4<br>No. of Days On-site (days) 2 4 0 | A | 2 | 7 | Yard | [ ] |

**Certification** *(Read and sign after completing all sections)*
I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 3, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Peter DiPietrantonio, EH&S Specialist — Name and official title of owner/operator OR owner/operator's authorized representative
Signature
2/25/05 — Date signed

**Optional Attachments**
[ ] I have attached a site plan
[ ] I have attached a list of site coordinate abbreviations
[ ] I have attached a description of dikes and other safeguards measures

Form Approved OMB No. 2050-0072

**Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**

*Specific Information by Chemical*

**Facility Identification**
Name: Sulzer Metco (U.S.), Inc.
Street: 220 Miller Place
City: Hicksville County: Nassau State: NY Zip: 11801
SIC Code: 3499 Dun & Brad Number: 152084398

**FOR OFFICIAL USE ONLY**
ID #
Date Received

**Owner/Operator Name**
Name: Sulzer Metco (U.S.), Inc. Phone: (516) 334-1300
Mail Address: 1101 Prospect Avenue, Westbury, NY 11590

**Emergency Contact**
Name: N/a Title:
Phone: 24 Hr. Phone:
Name: Title:
Phone: 24 Hr. Phone:

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 20 04

[ ] Check if information below is identical to the information submitted last year.

## Chemical Description

### Physical and Health Hazards *(check all that apply)*

### Inventory

### Storage Codes and Locations (Non-Confidential)

*Storage Locations*

| Chemical Description | Physical and Health Hazards | Inventory | Container Type | Pressure | Temperature | Storage Locations | Optional |
|---|---|---|---|---|---|---|---|
| CAS: Various; Trade Secret: ; Chem. Name: Ceramic powders; Check all that apply: [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS; EHS Name: N/a | [ ] Fire; [ ] Sudden Release of Pressure; [ ] Reactivity; [X] Immediate (acute); [ ] Delayed (chronic) | Max. Daily Amount (code): 05; Avg. Daily Amount (code): 05; No. of Days On-site (days): 240 | D<br>N<br>R<br>E<br>I | 1<br>1<br>1<br>1<br>1 | 4<br>4<br>4<br>4<br>4 | Warehouse & Production Floor<br>Production Floor<br>Prod'n Floor, Hardened Steel Hoppers<br>Warehouse & Production Floor<br>Warehouse & Production Floor | [ ] |
| CAS: 12012-35-0; Trade Secret: ; Chem. Name: Chrome carbide powder; Check all that apply: [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS; EHS Name: N/a | [ ] Fire; [ ] Sudden Release of Pressure; [ ] Reactivity; [X] Immediate (acute); [X] Delayed (chronic) | Max. Daily Amount (code): 04; Avg. Daily Amount (code): 04; No. of Days On-site (days): 240 | D<br>N<br>R<br>E<br>I | 1<br>1<br>1<br>1<br>1 | 4<br>4<br>4<br>4<br>4 | Warehouse & Production Floor<br>Production Floor<br>Prod'n Floor, Hardened Steel Hoppers<br>Warehouse & Production Floor<br>Warehouse & Production Floor | [ ] |
| CAS: 12070-12-1; Trade Secret: ; Chem. Name: Tungsten carbide powder; Check all that apply: [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS; EHS Name: N/a | [ ] Fire; [ ] Sudden Release of Pressure; [ ] Reactivity; [X] Immediate (acute); [ ] Delayed (chronic) | Max. Daily Amount (code): 04; Avg. Daily Amount (code): 04; No. of Days On-site (days): 240 | D<br>N<br>R<br>E<br>I | 1<br>1<br>1<br>1<br>1 | 4<br>4<br>4<br>4<br>4 | Warehouse & Production Floor<br>Production Floor<br>Prod'n Floor, Hardened Steel Hoppers<br>Warehouse & Production Floor<br>Warehouse & Production Floor | [ ] |

**Certification** *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 3, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Peter DiPietrantonio, EH&S Specialist — Name and official title of owner/operator OR owner/operator's authorized representative

Signature

2/25/05 — Date signed

**Optional Attachments**

[ ] I have attached a site plan
[ ] I have attached a list of site coordinate abbreviations
[ ] I have attached a description of dikes and other safeguards measures

# Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

*Specific Information by Chemical*

**Facility Identification**
Name: Sulzer Metco (U.S.), Inc.
Street: 220 Miller Place
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FOR OFFICIAL USE ONLY
ID #
Date Received

**Owner/Operator Name**
Name: Sulzer Metco (U.S.), Inc. Phone: (516) 334-1300
Mail Address: 1101 Prospect Avenue, Westbury, NY 11590

**Emergency Contact**
Name: N/a Title:
Phone: 24 Hr. Phone:
Name: Title:
Phone: 24 Hr. Phone:

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 20 04

[ ] Check if information below is identical to the information submitted last year.

## Chemical Description

### Physical and Health Hazards *(check all that apply)*

### Inventory

| Chemical Description | Physical and Health Hazards | Inventory | Container Type | Pressure | Temperature | Storage Codes and Locations (Non-Confidential) — Storage Locations | Optional |
|---|---|---|---|---|---|---|---|
| CAS: Various; Trade Secret: ; Chem. Name: Iron-based powder; Check all that apply: [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS; EHS Name: N/a | [ ] Fire; [ ] Sudden Release of Pressure; [ ] Reactivity; [X] Immediate (acute); [ ] Delayed (chronic) | Max. Daily Amount (code): 04; Avg. Daily Amount (code): 04; No. of Days On-site (days): 240 | D | 1 | 4 | Warehouse & Production Floor | [ ] |
| | | | N | 1 | 4 | Production Floor | |
| | | | R | 1 | 4 | Prod'n Floor, Hardened Steel Hoppers | |
| | | | E | 1 | 4 | Warehouse & Production Floor | |
| | | | I | 1 | 4 | Warehouse & Production Floor | |
| CAS: ; Trade Secret: ; Chem. Name: ; Check all that apply: [ ] Pure [ ] Mix [ ] Solid [ ] Liquid [ ] Gas [ ] EHS; EHS Name: | [ ] Fire; [ ] Sudden Release of Pressure; [ ] Reactivity; [ ] Immediate (acute); [ ] Delayed (chronic) | Max. Daily Amount (code): ; Avg. Daily Amount (code): ; No. of Days On-site (days): | | | | | [ ] |
| CAS: ; Trade Secret: ; Chem. Name: ; Check all that apply: [ ] Pure [ ] Mix [ ] Solid [ ] Liquid [ ] Gas [ ] EHS; EHS Name: | [ ] Fire; [ ] Sudden Release of Pressure; [ ] Reactivity; [ ] Immediate (acute); [ ] Delayed (chronic) | Max. Daily Amount (code): ; Avg. Daily Amount (code): ; No. of Days On-site (days): | | | | | [ ] |

**Certification** *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 3, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

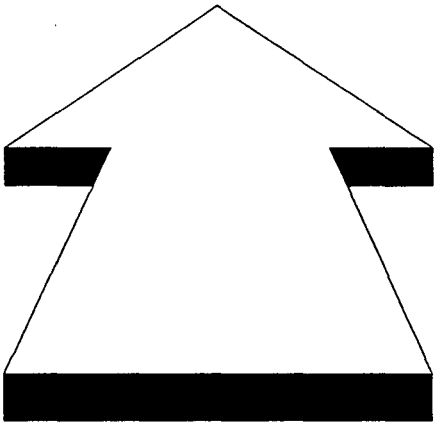
Peter DiPietrantonio, EH&S Specialist — Name and official title of owner/operator OR owner/operator's authorized representative
Signature
2/25/05 — Date signed

**Optional Attachments**
[ ] I have attached a site plan
[ ] I have attached a list of site coordinate abbreviations
[ ] I have attached a description of dikes and other safeguards measures

New York State Department of Environmental Conservation
Division of Hazardous Substances Regulation
50 Wolf Road, Albany, New York 12233-7250

# 1993 HAZARDOUS WASTE REGULATORY FEE INFORMATION FORM

## The attached form IS NOT the Hazardous Waste Report.



**The Hazardous Waste Report MUST be completed PRIOR to filling out the Hazardous Waste Regulatory Fee Information Form.**

**All Generators and TSD Facilities MUST complete this form.** You may be responsible for regulatory fees, depending on the quantity and type of hazardous waste generated and\or managed during the reporting year. The Hazardous Waste Regulatory Fee Information Form is used solely for assessing regulatory fees.

**PLEASE, READ THE INSTRUCTIONS CAREFULLY** before completing the form. The instructions explain which wastes should NOT be included in the Hazardous Waste Regulatory Fee Information Form waste totals. Inclusion of these wastes may result in higher fees.

Questions on the Hazardous Waste Regulatory Fee Information Form should be directed to the **Regulatory Compliance Section of NYSDEC at 518-485-8988**.

New York State Department of Environmental Conservation
Division of Hazardous Substances Regulation
50 Wolf Road, Albany, N.Y. 12233-7250

# INSTRUCTIONS FOR THE 1993 HAZARDOUS WASTE REGULATORY FEE INFORMATION FORM

**PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE COMPLETING THIS FORM. SUBMIT THE COMPLETED FORM WITH YOUR 1993 HAZARDOUS WASTE REPORT.**

**THE INFORMATION ON THIS FORM WILL BE USED TO CALCULATE HAZARDOUS WASTE PROGRAM FEES THAT MAY BE APPLICABLE FOR YOUR FACILITY OR SITE.**

Section I - Complete Section I of the summary form. Please check your EPA ID# for correctness. The "location" must reflect the address associated with the EPA ID#.

Section II - GENERATORS - Box #1 - Total all hazardous waste reported in Section II, Box B of your GM forms that is NOT a wastewater (see definitions on the next page) and is not exempt from fees as described below. This total must be converted to tons (2,000 pounds/ton). An incorrect conversion could cause an incorrect fee assessment, PLEASE DOUBLE CHECK this total.

SPECIAL NOTES: **For NON-HAZARDOUS wastewaters that are treated, resulting in a hazardous sludge, include the dewatered sludge only in your nonwastewater total in Section II, Box #1.**

**For the Hazardous Waste Regulatory Fee Information Form, DO NOT INCLUDE EXEMPT REMEDIAL WASTE.** Pursuant to Title 6, New York Codes of Rules and Regulations, Part 483 defines exempt remedial wastes as those resulting from services:

(1) under a contract with the Department, or with the Department's approval and in compliance with Department regulations, or pursuant to an order of the Department, the United States Environmental Protection Agency or a court, related to the cleanup or remediation of a hazardous material or hazardous waste spill, discharge, or surficial cleanup, pursuant to the Environmental Conservation Law, other than ECL section 27-1313, or a removal action pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601 et seq.); or

(2) under a contract for, or with the Department's approval and in compliance with Department regulations for, the cleanup and removal of petroleum spill or discharge, pursuant to subdivision seven of section one hundred seventy-six of the navigation law; or

(3) under the order of a court, the Department or the Department of Health, or the United States Environmental Protection Agency related to an inactive hazardous waste disposal site pursuant to ECL section 27-1313 section thirteen hundred eighty-nine-b of the Public Health Law or the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601 et seq.); or

(4) under permit or order requiring corrective action pursuant to title nine of ECL article twenty-seven or the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.).

Section II, Box #2 - Total the amount of HAZARDOUS wastewater generated prior to any treatment, pretreatment, or discharge. Each source must meet the definition of "wastewater" on the next page. If the definition is not met, the waste is a nonwastewater and must be totalled in Box #1. If no hazardous wastewater is generated at your site or if it is exempt as previously stated, enter "0." NOTE: NON-HAZARDOUS wastewaters that are treated, resulting in a hazardous sludge, are NOT counted as hazardous wastewater. **Include the dewatered sludge only in your nonwastewater total in Section II, Box #1.**

NOTE: No generator or TSDF need total any hazardous waste that is designated EXCLUSIVELY by EPA code(s) D018-D043, F032, F034, F035, F037, F038, K141-K145, K147-K151. **If ANY other waste code(s) are applicable to the waste, it MUST be totalled.**

# INSTRUCTIONS FOR 1993 HAZARDOUS WASTE REGULATORY FEE INFORMATION FORM - Cont.

Section III - Section III must be completed ONLY if your facility is a Treatment, Storage, or Disposal (TSD) Facility. **DO NOT complete this section if you are a Generator only.**

A TSD Facility is a facility that has one or more hazardous waste process units on site that require a permit or certificate for the treatment, storage, or disposal of hazardous waste pursuant to Title 9 of the ECL and the 6 NYCRR 370 Series. All TSD Facilities should have filed a Part A application for a hazardous waste permit at some point in time, and be permitted, seeking a permit, or in the process of closing any TSD units on site. Any TSD facilities with TSD units not certified closed are charged fees, regardless of the amount of waste presently handled.

Item 1: Applies only to special hazardous waste units requiring a certificate or permit.

Item 3: Only hazardous waste managed through TSD units are to be tallied here. Exempt systems should NOT be included.

Item 4: This value will not be found anywhere in your Hazardous Waste Report and must be provided from facility records.

Item 5: Postclosure facilities are those facilities that have certified closed RCRA units for which a management permit is needed.

Section IV - Certification - **GENERATORS and TSD FACILITIES MUST complete this section or the form will be rejected and returned. ALL FORMS MUST BE SUBMITTED WITH AN ORIGINAL SIGNATURE.**

Definitions:

"Wastewater" means liquid hazardous waste that contains: (I) a minimum of ninety-five percent water by weight; and (2) a maximum of one percent by weight of total organic carbon; and (3) a maximum of one percent by weight of total suspended solids (i.e., total filterable solids).

"Non-wastewater" means all hazardous waste that is not a "wastewater."

"Generator" means any person, by site, whose act or process produces hazardous waste or whose act first causes a hazardous waste to become subject to regulation. **(THIS INCLUDES HAZARDOUS WASTE RESULTING FROM A ONE-TIME OCCURRENCE.)**

Weight Conversions: Use the following unless you have knowledge of actual densitites/specific gravities of your waste:

2000 lbs = 1 ton (same as short tons)
1 gallon = 8.3 lbs (If the specific gravity is known, multiply the specific gravity by 8.3 to determine lbs/gal. For example: If the specific gravity of a waste is 0.9, the lbs/gal for this waste is 0.9 X 8.3 = 7.47 lbs/gal, or 1 gallon = 7.47 lbs.)
1 cubic yard = 0.85 tons
1 kilogram = 2.2 lbs
1 metric ton = 1000 kilograms
1 liter = 0.26 gallons

**Return the completed Hazardous Waste Regulatory Fee Information Form with your Hazardous Waste Report as described on page 5 of the Hazardous Waste Report instructions. If you have any questions or need assistance in completing this Regulatory Fee Information Form, call the Department of Environmental Conservation at (518) 485-8988.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SUBSTANCES REGULATION
50 WOLF ROAD ALBANY, NEW YORK 12233-7250

# 1993 Hazardous Waste Regulatory Fee Information Form

**NOTE: PLEASE CAREFULLY READ INSTRUCTIONS BEFORE COMPLETING THIS FORM**

## I GENERAL

| NAME OF GENERATOR OR TSD FACILITY | | EPA I.D. |
|---|---|---|
| FACILITY MAILING ADDRESS | | |
| CITY | STATE | ZIP |
| LOCATION OF GENERATOR OR FACILITY (if different from above) | | |
| CITY | STATE | ZIP |

**AT LEAST ONE BLOCK MUST BE CHECKED**

☐ GENERATOR ONLY ☐ TREATMENT, STORAGE, DISPOSAL (TSD) FACILITY ☐ GENERATOR AND TSD

## II GENERATOR

1. Summarize all hazardous nonwastewater totals, in tons, from GM, Section II, Box B of the Hazardous Waste Report. DO NOT include waste that is exempt from fees (SEE INSTRUCTIONS)

TOTAL HAZARDOUS NON WASTEWATER ⟶ Tons

2. Summarize the total hazardous wastewater generated, including hazardous wastewater treated in on-site systems. (SEE INSTRUCTIONS)

TOTAL HAZARDOUS WASTEWATER ⟶ Tons

## III TREATMENT, STORAGE & DISPOSAL

**COMPLETE THIS SECTION ONLY IF YOUR FACILITY IS A RCRA REGULATED TSD**

1. Please check all special process units
   - ☐ Hazardous Waste Landfill
   - ☐ Hazardous Waste Incinerator How many? ☐
   - ☐ Hazardous Waste Surface Impoundment

2. Please summarize all WR, Box E and convert the total to tons.
   TOTAL HAZARDOUS WASTE RECEIVED FROM OFF-SITE ⟶ Tons

3. FOR RCRA REGULATED TSD PROCESS UNITS: When Section 1, Box E "Origin Code" is 1, 2, 3 or 5, summarize all totals in GM, Section II, "On-Site System 1" and "On-Site System 2" and all totals in GM, Section III, Box E, "Site 1" and "Site 2". Convert the totals to tons.
   TOTAL HAZARDOUS WASTE MANAGED THROUGH RCRA REGULATED TSD UNITS ⟶ Tons

4. Amount of hazardous waste stored on-site on December 31, 1993, in tons ⟶ Tons

5. Is your facility under post closure care? ☐ Yes ☐ No

## IV CERTIFICATION

I certify that this form accurately represents the hazardous waste activities at this site during 1993. This activity (ies) may be subject to regulatory fees.

| Name | Title |
|---|---|
| Signature (ORIGINAL ONLY - NO PHOTOCOPIES) | Date: |
| Contact if other than above | Telephone No. |

**THIS FORM MUST BE COMPLETED AND RETURNED WITH THE HAZARDOUS WASTE REPORT**

**FOR OFFICIAL USE ONLY**

# METCOSEAL ST-1

## (THINNER)

**A SPECIAL THINNER USED WITH FINISHING TREATMENT OF THERMAL SPRAYED COATINGS.**

### INSTRUCTIONS

A thinner for use with certain METCOSEAL Coatings used in SULZER METCO Systems of Corrosion Prevention.

See SULZER METCO System Specifications and Instructions for full data on use.

BOLD — NOTE: There are several METCOSEAL Thinners. Use this thinner where specifically called for on the METCOSEAL Label.

**HAZARD NOTICE:** This material is for the thermal spraying process. Consult the SULZER METCO Instruction Manual, the Material Safety Data Sheet, and applicable Federal and local jurisdiction safety and health regulations before utilizing this product. This product should not be ingested; inhalation and skin contact should be avoided. Local ventilation, skin and respiratory protection should be used during handling. Good housekeeping and personal hygiene should be practiced. Some individuals may show unusual sensitivity to exposure. Failure to observe proper practices may result in health hazards.

**FOR EMERGENCY ASSISTANCE CALL**
**CHEMTREC - DAY OR NIGHT**
**1-800-424-9300**

**WARNING FLAMMABLE. HARMFUL IF INHALED. HARMFUL OR FATAL IF SWALLOWED. USE ONLY WITH ADEQUATE VENTILATION. FOR INDUSTRIAL USE ONLY.**

**Specific Effects Of Overexposure:**
**Methyl Isobutyl Ketone:** Hazard by inhalation, ingestion, skin and eye contact. Inhalation and ingestion may cause irritation to the mucous membranes, headache, narcosis and possible coma. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Toluene:** Hazard by inhalation, ingestion, skin absorption, skin and eye contact. Inhalation, ingestion and skin absorption may cause fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, lacrimation, nervousness, muscle fatigue, insomnia, anemia leucopenia and enlarged liver may be found in rare cases. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Diisobutyl Ketone:** Hazard by inhalation, skin and eye contact. Inhalation may cause nose and throat irritation, headache and dizziness. Narcotic in high concentrations. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Isopropyl Alcohol Anhydrous:** Hazard by inhalation, skin and eye contact. Inhalation may cause irritation to the eyes and mucous membranes, drowsiness, dizziness and headache. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Target Organs:** Respiratory system, central nervous system, liver, kidney, skin and eyes.

**In Case of Fire:**
Extinguishing Media: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or foam).
Unusual Fire and Explosion Hazards: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, open flames, or other sources of ignition. Closed containers may explode if exposed to extreme heat. Do not apply to hot surfaces.
Special Fire Fighting Procedures: Water spray may be ineffective. Water may be used to cool containers to prevent pressure buildup and possible explosion when exposed to extreme heat. If water is used, fog nozzles are preferable.
**In Case of Spill or Leak:**
Remove all sources of ignition (flames, hot surfaces, electrical or frictional sparks). Avoid breathing vapors. Ventilate area. Remove with inert absorbent and non-sparking tools. IMPORTANT: Hazardous product residue may be present after contents have been removed. Do not reuse empty package without commercial cleaning or reconditioning.
**Special Protection Information:**
Adequate local/general ventilation should be provided when using this product. Appropriate respiratory, skin, eye and hand protection should be utilized when using this product.
**Special Precautions:**
Precautions to be Taken in Handling and Storing: Store away from incompatibles. Keep containers closed when not in use. Do not store in open, unlabeled or mislabeled containers. Do not transfer contents to bottles or other unlabeled containers. Store in a cool and dry area. Do not use in poorly ventilated or confined areas. Do not store above 120°F.
Other Precautions: Containers should be grounded when pouring. Avoid free fall of liquid in excess of a few inches. DO NOT FLAME CUT, BRAZE OR WELD EMPTY CONTAINERS. KEEP CONTAINERS CLOSED WHEN NOT IN USE.
Waste Disposal Method: Dispose of the chemical materials and/or their containers in accordance with federal, state or local laws/regulations regarding disposal.

**USING THE NATIONAL PAINT AND COATINGS ASSOCIATION'S HAZARDOUS MATERIALS IDENTIFICATION SYSTEM, THIS PRODUCT'S HAZARD CLASSIFICATION IS:**

| | |
|---|---|
| HEALTH | ? |
| FLAMMABILITY | ? |
| REACTIVITY | ? |
| PERSONAL PROTECTION | See the MSDS for proper personal protective equipment. |

Flash Point: 40°F
UN1263 PAINT

**WARNING:** This product contains a chemical known to the STATE OF CALIFORNIA to cause cancer and/or reproductive harm.

*While this information is furnished in good faith, no guaranty is made as to accuracy. This material is for the Thermal Spraying Process, and relevant instructions should be consulted before use. The user assumes all risks in connection with the use of this material. SULZER METCO shall in no event be liable for special, incidental or consequential damages in connection with this information, or for any damage or injury caused by this material if used for any other purpose than the Thermal Spray Process, or if proper safety and health practices are not followed.*

EPA FORM R.1 CALENDAR YEAR 1995

MANUF OR PROCESS 25,000#

OTHERWISE USE 10,000# 1WH

LWI-JO

| MP | | | 8.5 1994 RECY. | 5.1 AIR | 8.1 1995 WASTE | 8.5 1995 RECY | 5.1 1995 AIR | SOURCE REDUCTION | |
|---|---|---|---|---|---|---|---|---|---|
| ALUMINUM | 04 | 10-100K | RECY 2800 | 2 | AETC 26,600 | 684# | 2 | | |
| CHROMIUM | 03 | 1-10K | RECY 3900 | 1 | OWH+AETC 28,473 | 533# | 1 | | |
| COBALT | 03 | 1-10K | RECY 360 | 3 | N/A | 54# | 3 | | CERT |
| NICKEL | 04 | 10-100K | RECY 19,000 | 5 | N/A | 7069# | 5 | | |
| COPPER | 03 | 1-10K | — | | N/A | 149# | 0 | / | CERT |
| | | | 8.5 | 8.1 | 8.1 | 8.5 | 8.1 | | |

| PA | | | 8.1 1994 | 5.1 AIR | 8.1 1995 WASTE | 8.5 1995 RECY | 5.1 1995 AIR | SOURCE REDUCTION | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ALUMINUM | 04 | 10-100K | WASTE 200 | Ø | N/A | N/A | 7 | | ✓ | CERT |
| CHROMIUM | 03 | 1-10K | WASTE 940 | 3 | N/A | N/A | Ø | HEPA ✓ | ✓ | CERT |
| COBALT | 03 | 1-10K | WASTE 140 | 2 | N/A | N/A | 5 | | ✓ | CERT |
| NICKEL | 04 | 10-100K | WASTE 3500 | 13 | N/A | N/A | Ø | HEPA ✓ | ✓ | CERT |
| COPPER | 03 | 1-10K | WASTE 920 | 2 | N/A | N/A | 7 | | ✓ | CERT |
| | | | 8.1 | | | | | | | |

P2SUL000481

# FAX TRANSMISSION
# DONNELLY ENGINEERING

P. O. BOX 876
NESCONSET, NY 11767-0876
516/979-7788
FAX: 516/979-7819

| | | | |
|---|---|---|---|
| **To:** | Constance Conroy | **From:** | Joseph J. Salvo JS |
| **Organization:** | Sulzer Metco | **Subject:** | Emission Rate Table |
| **Fax #:** | 338-~~2487~~ 9336 | **Date:** | October 2, 1996 |
| | | **Pages:** | 2, including this cover sheet. |

COMMENTS.

Per your request, enclosed please find the table of those constituents emitted at the Prospect facility in points per year. It should be noted that the Miller Place facility has not changed and therefore is not included.

If there are any further questions or if additional information is needed, please do not hesitate to contact the undersigned.

Sincerely,

Joseph J. Salvo
Project Manager

EPA FORM R# — CALENDAR YEAR 1995

MILLER PLACE FACILITY# - RECYCLE MATERIAL - LONG ISLAND METAL CORPORATION

NICKEL

| | | |
|---|---|---|
| 04-01-95 | 95% Ni POWDER 400# | 380# |
| 06-29-95 | Ni/CR 80% Ni 2500# | 2000# |
| 06-29-95 | Ni 50% 500# | 250# |
| 11-9-95 | Ni TOTAL | 1305# |
| 06-22-95 | Ni TOTAL | 904# |
| 08-16-95 | Ni TOTAL | 1550# |
| 10-12-95 | Ni TOTAL | 680#/1069# X |

ALUMINUM

| | | |
|---|---|---|
| 05-01-95 | AL SCRAP 60# | 60# |
| 1109-95 | | 384# |
| 06-22-95 | AL TOTAL | 70# |
| 10-12-95 | AL TOTAL | 170#/68A# X |

CHROMIUM

| | | |
|---|---|---|
| 06-29-95 | Ni/CR 80% Ni 2500# | 500# |
| 11-9-95 | | 33#/555# X |

COPPER

| | | |
|---|---|---|
| 11-9-95 | Cu | 149# X |

COBALT

| | | |
|---|---|---|
| 06-22-95 | | 54# ✓ |

P2SUL000483

4

EPA FORM R — REPORTING YEAR 199

MILLER PLACE FACILITY

07-07-95 / NJA 1976306 / 4850# 4123# CHROMIUM OXIDE WITH WATER — 85% CHROMIUM 15% WATER — ✓ CWM NEWARK, NJ
5280# CHROMIUM OXIDE
NJA 2177368 400# CHROMIUM OXIDE — ✓ AGTC FLANDERS NJ

06-30-95 / NYB656926Z / 6600# 6270# CHROMIUM OXIDE WITH WATER — 95% CHROMIUM 5% WATER — ✓ CWM NIAGARA CITY NY
12 400# CHROMIUM OXIDE

08-15-95 / NJA 2176940 / 10,000# ALUMINUM POWDER — ✓ AGTC FLANDERS, NJ
16,600# ALUMINUM POWDER

| | | | | | |
|---|---|---|---|---|---|
| ✓ | CHROMIUM OXIDE | CWM | NEWARK, NJ | 9403# | ✓ |
| | | CWM | NIAGARA CITY, NY | 18670# | ✓ |
| | | AGTC | FLANDERS, NJ | 400# | ✓ |
| | | | | 28473 | |
| ✓ | ALUMINUM POWDER | AGTC | FLANDERS, NJ | 26,600# | ✓ |

P2SUL000484

EPA ID : NYD981558570 SULZER METCO (US) INC.
220 MILLER PLACE
HICKSVILLE NY 11801

| Src | Form | System | Ship Date | Manifest | PG | LN | Pounds | Primary Waste Code | WIP # | Waste Name/ Additional Waste Cde | Destination | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A35 | B315 | M141 | 8/15/95 | NJA2176940 | 1 | B | 16600 | D001 | 153427 | METAL DUST/ METAL OXIDE BE0506 ← D001 D007 | NJD980536593 | A E T C |
| | | | | Total Pounds: | | | 16600 | | | | | |
| A40 | B315 | M141 | 8/15/95 | NJA2176940 | 1 | A | 10000 | D001 | 153426 | GRAPHITE AND ALUMINUM SCRAP BE0505 ← D001 | NJD980536593 | A E T C |
| | | | | Total Pounds: | | | 10000 | | | | | |
| A58 | B203 | M141 | 7/07/95 | NJA2177368 | 1 | A | 200 | D001 | 153429 | WINDOW CLEANER D001 | NJD980536593 | A E T C |
| A58 | B203 | M141 | 7/07/95 | NJA2177368 | 1 | C | 800 | D001 | 153429 | WINDOW CLEANER D001 | NJD980536593 | A E T C |
| A58 | B203 | M141 | 7/07/95 | NJA2177368 | 1 | D | 400 | D001 | 153429 | WINDOW CLEANER D001 | NJD980536593 | A E T C |
| | | | | Total Pounds: | | | 1400 | | | | | |
| A59 | B119 | M141 | 7/07/95 | NJA2177368 | 2 | C | 240 | D002 | 131227 | SULFURIC ACID, 88% D002 | NJD980536593 | A E T C |
| A59 | B119 | M141 | 7/07/95 | NJA2177368 | 2 | D | 400 | D007 | 153433 | CHROMIC OXIDE, LIQUID ← D007 | NJD980536593 | A E T C |
| | | | | Total Pounds: | | | 640 | | | | | |
| A59 | B203 | M141 | 7/07/95 | NJA2177368 | 1 | B | 200 | D001 | 153424 | THINNERS D001 | NJD980536593 | A E T C |
| A59 | B203 | M141 | 7/07/95 | NJA2177368 | 2 | A | 3200 | D001 | 153430 | SUPER AGITENE D001 | NJD980536593 | A E T C |
| A59 | B203 | M141 | 7/07/95 | NJA2177368 | 2 | B | 800 | D001 | 153424 | THINNERS D001 | NJD980536593 | A E T C |
| | | | | Total Pounds: | | | 4200 | | | | | |
| A59 | B206 | M141 | 7/07/95 | NJA2177368 | 2 | F | 5200 | X726 | 153432 | CUTTING OILS X725 | NJD980536593 | A E T C |
| | | | | Total Pounds: | | | 5200 | | | | | |

Total Pounds for EPA ID NYD981558570 : 38040

Transporters for EPA ID : NYD981558570

| Transporter EPA ID | Name and Address |
|---|---|
| NJD991291584 | ENVIRON TRANSFER CORP<br>3 GOLD MINE ROAD<br>FLANDERS NJ 07836 |

End of report

AETS
ADVANCED ENVIRONMENTAL
TECHNICAL SERVICES

January 16, 1996

Dear Valued Customer:

Advanced Environmental Technical Services (AETS) has supplied an annual report summary of waste generated from your facility for materials managed by AETS and/or AETC. This summary will assist you in the completion of the 1995 Hazardous Waste Report required by the USEPA and your state environmental agency. This document is to serve as an outline to properly complete the appropriate report forms.

The information supplied in this annual summary report includes the following:

- Generator information and USEPA identification number (Located at the top of the report)
- Transporter information and USEPA identification number (Located at the bottom of the report)
- Source and form codes
- System Type (If sent to a former AETC facility, system type reflects storage)
- Shipping date
- Manifest number and page and line of manifest
- Total weight (Quantity) indicated in pounds
- Hazardous waste code utilized for shipment
- Waste Information Profile (WIP) # and Description of waste
- Additional waste codes applicable to the waste stream
- Destination facility information (USEPA identification number and facility name)
- Total weight in pounds of each waste group (Wastes are grouped together according to source and form codes and P-listed wastes are segregated)

The format of the Hazardous Waste Report has essentially remained the same. The appropriate forms - IC & GM must be completed accurately. Please follow the procedures outlined below to include the information supplied by AETS on the appropriate form.

**FORM IC**

Form IC is to be completed by all generators of hazardous waste. The name, location, mailing address, and contact person of the site must be indicated on the form.

3 Gold Mine Road • Flanders, New Jersey 07836 • 201-347-7111 • Fax: 201-691-3978 Printed on recycled paper

Generator status must also be indicated, as well as any on-site waste management status, waste minimization activities, and if source reduction or recycling strategies were limited or delayed during the course of the year.

Finally, the site contact must sign and date the form to certify that, to the best of his/her knowledge, the information submitted is true and accurate.

**Form GM**

Form GM is required for all hazardous waste generated or shipped off-site during 1995. This form is utilized to characterize and describe the waste. Separate GM forms must be completed for each hazardous wastestream, including different production or service activities, spill clean-up or remedial activities, or residuals from the on-site treatment, disposal, or recycling of existing hazardous wastestreams. Non-hazardous wastes **do not** have to be indicated on the GM forms. Procedures for packaged laboratory chemicals (PLC) and bulk containers are outlined below.

**Bulk Containers**

The site name and USEPA identification number must be indicated on all the GM forms. A waste description must be indicated for all wastestreams. The USDOT proper shipping names supplied by AETS on the packing slips may be utilized, however, you may group several shipping names into one (1) general narrative description that is consistent for the wastestream as listed on the annual summary report. This procedure is useful in reducing the number of pages necessary to complete the report.

The appropriate USEPA or state hazardous waste code and source, form, and system codes can be obtained from the annual summary report and must be indicated in Section I of the GM form. The remainder of Section I must be completed by the generator including the following:

- SIC Code — Code for the product or service associated with the generation of the waste.
- Origin Code — Code that describes the process or activity that was the source of the hazardous wastestream.
  This code is often either:
  1 - indicating that the waste was generated on site from a production process or service activity, or

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2 - indicating that the waste was a result of a spill clean-up, equipmnent decommissioning, or other remedial clean-up.

- Point of Measurement — Code that best describes the point at which the waste was measured or estimated.

- RCRA Radioactive — Indicate if the material is mixed with a nuclear source as follows:
  1 - Yes
  2 - No

The SIC, origin, system type, source, and form codes can also be obtained from the packing slips prepared by AETS for the waste shipment.

In Section II of Form GM, the annual quantity and unit of measure must be indicated for the years of 1994 and 1995 for the hazardous wastestream. The 1995 information can be obtained from the annual summary report supplied by AETS. In Box D of Section II, the operator must indicate if any on-site treatment, recycling, disposal, or discharge to a sewer/POTW took place at the site. If the response is "yes", the additional information under the on-site system category must be completed. If the reply is "no", then you may skip to the next section.

Section III of Form GM must be completed for any off-site shipment of the wastestream. Information requested includes the USEPA identification number, the system type, the availability code, and the total quantity of material transported to the off-site facility. The USEPA identification numbers and the total quantity shipped can be obtained from the annual summary report.

Please note that although AETC and Chemical Waste Management Technical Services merged in early 1995 to form AETS, all AETC storage facilities retained the name AETC through the end of 1995. For the 1995 Annual Report, materials shipped to any of the former AETC facilities should reflect the following facility names, addresses, EPA ID numbers, system types, and off-site codes:

- For shipments to: AETC, 1 Eden Lane, Flanders, New Jersey
  USEPA ID #: NJD 980 536 593
  System Type: M141
  Off-Site Code: 1 (Commercial treatment facility)

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- For shipments to: AETC, 2176 Will Suitt Rd., Creedmoor, North Carolina
  USEPA ID #: NCD 986 166 338
  System Type: M141
  Off-Site Code: 1 (Commercial treatment facility)

- For shipments to: CAETC, 1125 Hensley St., Richmond, California
  USEPA ID #: CAT 080 014 079
  System Type: M141
  Off-Site Code: 1 (Commercial treatment facility)

Waste minimization activities must be specified in Section IV of the form. This includes source reduction and recycling activities. In this section, materials destined for Advanced Environmental Recycling Corporation (AERC) should be indicated. This includes any mercuric wastestreams and fluorescents lamps manifested to AERC.

To complete the requirements of Form GM, a list of the hazardous waste manifests and dates shipped must be included for **New Jersey Generators Only** . This information is supplied on the annual report summary.

**Lab Pack Chemicals**

The procedures for completing Form GM for lab packs is slightly different. The lab packs can be consolidated onto two (2) GM Forms: one (1) for the acute lab packs (P listed and F020 series) and one (1) for all others. It is not necessary to indicate every EPA waste code for the batch of non-acute lab packs. The letters "LABP" may be entered in the first waste code field in Section I, Box B, and "NA" in the remainder.

Quantities for the lab packs must be summarized and indicated in Section II of the form. These weights can be obtained from the annual summary report. The lab pack wastestreams are indicated as B001-B004 or B009 in the form column on the left hand side of the summary.

All other sections of Form GM should be completed in the same manner as bulk containers.

**FORM OI**

**This is no longer required by USEPA. Please refer to the instructions supplied with your states report forms to determine if your state requires Form OI.**

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Form OI is a document that indicates the names, addresses of off-site transporters and installations utilized during 1995. This includes all treatment, storage, and disposal facilities, as well as all hazardous waste transporters.

To complete this form, your site name and USEPA identification number should be indicated in the upper left hand corner of the form. The USEPA identification number, name, and address for each TSDF must be indicated. For transporters, only the USEPA identification number, name and type has to be entered in Boxes A, B, and C respectively. The address does not have to be reported. This information can be obtained from the annual summary report.

Please be aware that if your facility has an on-site treatment, disposal or recycling process, an additional Form PS must also be completed. In addition, if your facility accepts waste from off-site generators, Form WR must be submitted.

If there are any questions concerning the 1995 Hazardous Waste Report format, the AETS annual summary report, or the proper completion of the appropriate forms, please contact me at (201) 691-7323 or Andrew Babij at (201) 691-3907.

Sincerely,

Mary Gaskill

Mary Gaskill
Records & Reporting
Coordinator

MG:mg

cc: Andrew Babij, AETS
James Bell, AETS

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This engineering standard is provided solely for the purpose of disclosing Alcoa's approach and is not intended to be a recommendation for any recipient other than Alcoa. No warranties, guarantees or representations, express or implied are made as to the utilities or effectiveness of the methods, processes, products or procedures described or recommended herein.

## 1. SCOPE

This standard provides the recommended procedures for cleaning the equipment and facilities used in the manufacture of aluminum powder and pigment products. It has been prepared by the Alcoa Powder and Pigment Safety Committee.

## 2. GENERAL

Good housekeeping is of utmost importance to optimize the safety of the facility.

Equipment shall be designed, operated, and maintained with the objective of minimizing dust. Accumulations of dust are prohibited and shall be removed from light fixtures, ducts, hoods, ledges, and beams on a regular basis. The objective is to remove the accumulation of dust before it becomes a hazard as a source of secondary explosion.

Spills shall be removed at once using conductive, non-sparking scoops and soft brooms or brushes having natural fiber bristles. Avoid developing a dust cloud or generating a spark. The use of synthetic fiber bristle brushes and scoops made of plastic which store static electricity is prohibited. One source of approved tools is Ampco Metal in Milwaukee, Wisconsin. Refer to the use of a vacuum cleaner for final cleanup in Section 5.

Use water for cleaning under the following conditions only:

(a) Competent technical personnel determine that the use of water produces the safest method.

(b) Operating management is fully informed of the conditions and has granted approval for use.

(c) Natural or forced ventilation is used to maintain the hydrogen concentration below the lower explosive limit.

(d) Complete drainage of all water and powder is provided to a safe, remote area that does not conflict with state or local codes.

All personnel shall be grounded by wearing conductive footwear in accordance with ANSI Z41, "Protective Footwear for Personnel Protection", Section 3, Part 1. Conductive soled safety shoes or safety shoes with "stats" are acceptable. Personnel shall establish the conductivity of footwear by using conductivity mats prior to entering the workplace.

Powder and Pigment Plant Safety Procedures shall be followed.

## 3. CLEANING FREQUENCY

Supervisors shall act to prevent the accumulation of excessive dust on buildings or machinery not cleaned in daily operations. Clean weekly with machinery idle and power off, or more often as conditions warrant. Inspect mechanical machinery weekly and clean if it has operated during that period. Inspect and clean electrical equipment at regular intervals.

## 4. COMPRESSED AIR CLEANING

When other methods are impractical, compressed air blowdown is permitted using excess air flow safety valves and OSHA approved air guns under the following limitations:

- No molten metal furnaces present.
- Use only fine coatings or minimal deposits.

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Guarantees or representations express or implied are made as to the accuracy or effectiveness of the methods, processes, products or procedures described or recommended herein

- o Handle spills or large accumulations as prescribed in Section 2.
- o Shut down all operations. Turn off all electricals systems. No exceptions.
- o Remove all other potential ignition sources from the area.
- o Provide adequate ventilation.

Air gun assembly to meet the following criteria:

- o Use air hose constructed with conductive material.
- o Install excess air flow safety valve upstream of the air hose. (Refer to Standard 16.4.1). Limit valve capacity to 200% of the air gun.
- o Use Guardair Safety Air Gun manufacturerd by Union Engineering Corp., South Hadley Falls, MA 01075, or OSHA approved design, with 42 maximum length as shown assembled on Rockdale Drawing D-024060-RT. See Figure 1.

Arrange piping to:

- o Provide a conductive path for grounding any static electricity buildup.
- o Avoid the use of teflon tape as a thread sealant or lubricant.

## 5. VACUUM CLEANING SYSTEMS

Use vacuum cleaners specifically designed and approved for combustible metal dusts. The use of standard commercial or industrial cleaners is prohibited.

Use permanently installed vacuum cleaning systems for maximum safety. These permit the dust collector and exhaust blower to be located at least 50 feet (15.24 m) outside of the danger area. With the dust collector positioned closer than that, surround the unit with a cylindrical shield. The shield should have a closed bottom, open top with a light unfastened cover, and designed for a blast pressure of 200 psig (1378 kPa), with the pressure directed upward away from the property and personnel. Equip suction pipes with explosion vents and anti-flashback valves.

Specify electrical equipment as follows:

(a) Dust producing building or area - Class II, Group E locations.

(b) Paste or pigment operations - Class I, Group D and Class II, Group E locations.

Portable vacuum cleaners are approved for use only when equipped for these two locations or are non-electrically powered.

Plant installations shall be approved by the Powder and Pigment Safety Committee. Committee review of equipment drawings, specifications and drawings showing the intended service are required before developing a purchase order. The vacuum cleaner, piping, hoses, and tools shall be effectively grounded and bonded to minimize the accumulation of static electricity. Tools shall be made of electrically conductive, non-sparking materials. Vacuum cleaning systems shall only be used for removal of dust accumulations too small or too dispersed to be thoroughly removed by hand-brushing. All spills shall first be cleaned by scooping and mild brushing using conductive, non-sparking scoops and natural bristle brushes. Refer to NFPA 77, Static Electricity.

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This engineering standard is provided solely for the purpose of assisting Alcoa's employees and is not intended to be a recommendation for any recipient other than Alcoa. No warranties, guarantees or representations, express or implied are made as to the utilities or effectiveness of the procedures described or recommended herein.

## 6. REFERENCES

NFPA 65, 1987, Standard for the Processing and Finishing of Aluminum

NFPA 651, 1987, Standard for the Manufacture of Aluminum and Magnesium Powder

NFPA 654, 1982, Standard for the Prevention of Fire and Dust Explosives in the Chemical, Dye, Pharmaceutical and Plastics Industries

ANSI Z41, Protective Footwear for Personal Protection

NFPA 77, 1983, Static Electricity

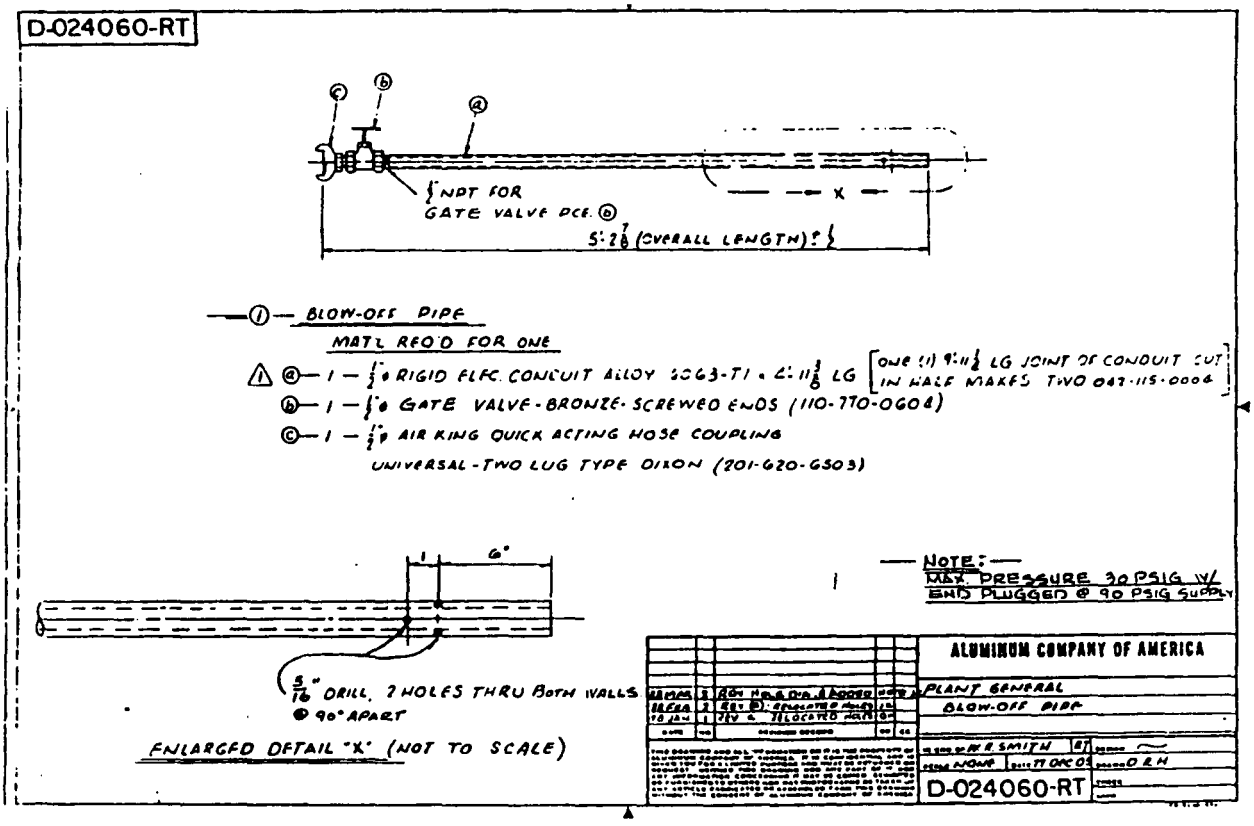


FIGURE 1

**ADF SYSTEMS, LTD.**
P.O. Box 278
Humboldt, IA 50548
(515) 332-5400

PRODUCT NAME: **PC EXTRA**

# MATERIAL SAFETY DATA SHEET ESSENTIALLY SIMILAR TO OSHA-20

NE = NOT ESTABLISHED NA = NOT APPLICABLE

## SECTION 1 - GENERAL INFORMATION

CHEMICAL FAMILY: Alkaline Cleaner
HAZARD CLASSIFICATION: Not regulated
SHIPPING NAME: Not regulated, use product name.

HAZARD SIGNALS:
HEALTH 1 INSTABILITY 0
FIRE 0 OTHER
(0 = insignificant; 1 = slight; 2 = moderate
3 = high; 4 = extreme. Describes short term hazards only)

## SECTION 2 - HAZARDOUS INGREDIENTS

| HAZARDOUS COMPONENTS | CAS # | TLV | OSHA PEL | Section 313? | % (optional) |
|---|---|---|---|---|---|
| Sodium metasilicate | 6834-92-0 | 2mg/$m^3$ | 2mg/$m^3$ | no | <50% |

## SECTION 3 - PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling point | NA. | Vapor pressure | NA. |
| Specific gravity | NA. | Vapor density | NA. |
| Percent volatile | NA. | Evaporation rate | NA. |
| Solubility in water | complete | | |
| Appearance and odor | dedusted granular white solid, essentially odorless | | |

## SECTION 4 - FIRE AND EXPLOSION

FLASH POINT(temp at which it gives off combustible vapors) n.a.
Flammable limits– lower: n.a.
Flammable limits– upper: n.a.
EXTINGUISHING MEDIA: No restrictions. (Product dissolves in water)
SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus. Use protective clothing to avoid skin contact with product.
UNUSUAL FIRE & EXPLOSION HAZARDS: None (non-combustible solid)

## SECTION 5 - REACTIVITY DATA

STABLE: yes conditions to avoid: none.
INCOMPATIBILITY: Strong acids and oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: oxides of carbon
HAZARDOUS POLYMERIZATION: will not occur.

Date Prepared: September 29, 1991
Date printed September 29, 1991

## SECTION 6 - HEALTH HAZARD DATA

Threshold limit value: NA. (blended product)

Health hazards - Chronic unknown.

This product has not been identified as a carcinogen or probable carcinogen by: NTP, IARC Monographs, or OSHA.

Medical conditions generally aggravated by exposure: unknown

EFFECTS OF OVEREXPOSURE

EYES Burns

SKIN possible irritation or burns upon prolonged contact.

INHALATION (of dust) irritation of nose and throat. Note, inhalation of dust is an unlikely route of exposure. The product is dedusted and non-volatile.

INGESTION Burns of mouth and mucous membranes.

EMERGENCY AND FIRST AID PROCEDURES

EYES Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if applicable. Contact a physician.

SKIN Rinse thoroughly with water. Contact a physician if irritation persists.

INHALATION Remove to fresh air. If breathing dificulties occur seek medical attention.

INGESTION Drink large quantities of milk or water. Do not induce vomiting. Call a physician. (MEDICAL EMERGENCY HOTLINE NUMBER AT TOP OF THIS FORM)

## SECTION 7 - PROTECTIVE EQUIPMENT

RESPIRATOR TYPE: none normally required.

VENTILATION Use with adequate ventilation to avoid breathing dust. (product is dedusted). Avoid breathing concentrated mists or sprays.

EYE PROTECTION safety goggles and/or face shield where conditions warrant.

PROTECTIVE GLOVES rubber gauntlet type.

OTHER PROTECTIVE EQUIPMENT Eyewash stations. Rubber protective clothing as required to avoid prolonged or repeated skin contact.

## SECTION 8-PRECAUTIONS FOR HANDLING AND USE

HANDLING AND STORING:Incidental contact with this product normally causes no harm. However, as with any industrial cleaner, some basic safety measures should be observed. Guard against ingestion of dusts, etc. and wash thoroughly after handling. Do not get in eyes, on skin, or leave on clothing.

OTHER PRECAUTIONS: Store in a cool dry , place away from sources of contamination. Keep container closed to avoid caking or contamination.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up or shovel spills and contain for possible re-use.

WASTE DISPOSAL METHODS : Dispose of waste as allowed by local, state and federal regulations.

DISCLAIMER: The above information is, to the best of our knowledge, current, accurate, and complete based on information reasonably available to us as of the date of preparation of this form. However, it is the user's responsibility to determine the safety, toxicity and suitability for his or her own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by us as to the effects of such use or on the safety or toxicity of this product. Nor do we assume any liability arising out of use by others of the product. Nor is the information herein to be construed as absolutely complete, since additional information may be necessary or desirable when exceptional conditions or circumstances exist or because of applicable laws or regulations.

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| Prepared by | WRC/CBG | //I4RMODIF |
| Supersedes Previous Shee. | yes: September 10, 1991 | |
| Date Prepared: | September 29, 1991 | |
| Date printed | September 29, 1991 | |

ADF CHEMICALS

# PC EXTRA

**PC EXTRA** is a biodegradable, non-caustic detergent designed for use in ADF parts washers. This alkaline detergent contains a unique blend of surfactants that provide a low foaming cleaner that is very effective in removing grease, oil, and other types of contamination. **PC EXTRA** is recommended for use on steel, stainless steel, brass, aluminum, and copper parts.

**PC EXTRA** contains a rust inhibitor to provide in-process protection of steel parts and inhibit darkening of brass parts. If your mixture does not provide sufficient rust inhibiting, use a stronger mix.

**DIRECTIONS FOR USE:** Mixing concentrations will vary with the cleaning requirements. For a light to medium grease or oil buildup, such as cutting and manufacturing oil on new parts, use 1 to 3 ounces of detergent per gallon of water in the cleaning solution tank. For parts with heavy layers of dirt and grease, such as automotive parts, use 3 to 9 ounces of detergent per gallon of water.

It is recommended that **PC EXTRA** be premixed for faster and more consistent dissolving into a solution. Warm water further aids this process.

**CAUTION:** Contains sodium metasilicate. Harmful if swallowed or splashed in eyes.

**FIRST AID:** If swallowed, do not induce vomiting. Drink large quantities of water and call physician immediately. If splashed in eyes, flush with water for at least 15 minutes and call physician immediately. Avoid prolonged or repeated contact with skin.

FOR INDUSTRIAL USE ONLY
**CAUTION**
KEEP OUT OF REACH OF CHILDREN

| PART NO. | DESCRIPTION |
|---|---|
| 552102 | PC EXTRA 20# |
| 552103 | PC EXTRA 45# |
| 552105 | PC EXTRA 450# |

MADE IN U.S.A.

**ADF SYSTEMS, LTD.**
P.O. Box 278
Humboldt, IA 50548
(515) 332-5400

PRODUCT NAME: **PC EXTRA**

# MATERIAL SAFETY DATA SHEET ESSENTIALLY SIMILAR TO OSHA-20

NE = NOT ESTABLISHED NA = NOT APPLICABLE

## SECTION 1 - GENERAL INFORMATION

CHEMICAL FAMILY: Alkaline Cleaner
HAZARD CLASSIFICATION: Not regulated
SHIPPING NAME: Not regulated, use product name.

HAZARD SIGNALS:
HEALTH 1 INSTABILITY 0
FIRE 0 OTHER
(0 = insignificant; 1 = slight; 2 = moderate
3 = high; 4 = extreme. Describes short term hazards only)

## SECTION 2 - HAZARDOUS INGREDIENTS

| HAZARDOUS COMPONENTS | CAS # | TLV | OSHA PEL | Section 313? | % (optional) |
|---|---|---|---|---|---|
| Sodium metasilicate | 6834-92-0 | 2mg/$m^3$ | 2mg/$m^3$ | no | <50% |

## SECTION 3 - PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling point | NA. | Vapor pressure | NA. |
| Specific gravity | NA. | Vapor density | NA. |
| Percent volatile | NA. | Evaporation rate | NA. |
| Solubility in water | complete | | |
| Appearance and odor | dedusted granular white solid, essentially odorless | | |

## SECTION 4 - FIRE AND EXPLOSION

FLASH POINT(temp at which it gives off combustible vapors) n.a.
Flammable limits– lower: n.a.
Flammable limits– upper: n.a.
EXTINGUISHING MEDIA: No restrictions. (Product dissolves in water)
SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus. Use protective clothing to avoid skin contact with product.
UNUSUAL FIRE & EXPLOSION HAZARDS: None (non-combustible solid)

## SECTION 5 - REACTIVITY DATA

STABLE: yes conditions to avoid: none.
INCOMPATIBILITY: Strong acids and oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: oxides of carbon
HAZARDOUS POLYMERIZATION: will not occur.

Date Prepared: September 29, 1991
Date printed September 29, 1991

## SECTION 6 - HEALTH HAZARD DATA

Threshold limit value: NA. (blended product)

Health hazards - Chronic unknown.

This product has not been identified as a carcinogen or probable carcinogen by: NTP, IARC Monographs, or OSHA.

Medical conditions generally aggravated by exposure: unknown

EFFECTS OF OVEREXPOSURE

EYES Burns

SKIN possible irritation or burns upon prolonged contact.

INHALATION (of dust) irritation of nose and throat. Note, inhalation of dust is an unlikely route of exposure. The product is dedusted and non-volatile.

INGESTION Burns of mouth and mucous membranes.

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EYES Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if applicable. Contact a physician.

SKIN Rinse thoroughly with water. Contact a physician if irritation persists.

INHALATION Remove to fresh air. If breathing dificulties occur seek medical attention.

INGESTION Drink large quantities of milk or water. Do not induce vomiting. Call a physician. (MEDICAL EMERGENCY HOTLINE NUMBER AT TOP OF THIS FORM).

## SECTION 7 - PROTECTIVE EQUIPMENT

RESPIRATOR TYPE: none normally required.

VENTILATION Use with adequate ventilation to avoid breathing dust. (product is dedusted). Avoid breathing concentrated mists or sprays.

EYE PROTECTION safety goggles and/or face shield where conditions warrant.

PROTECTIVE GLOVES rubber gauntlet type.

OTHER PROTECTIVE EQUIPMENT Eyewash stations. Rubber protective clothing as required to avoid prolonged or repeated skin contact.

## SECTION 8-PRECAUTIONS FOR HANDLING AND USE

HANDLING AND STORING:Incidental contact with this product normally causes no harm. However, as with any industrial cleaner, some basic safety measures should be observed. Guard against ingestion of dusts, etc. and wash thoroughly after handling. Do not get in eyes, on skin, or leave on clothing.

OTHER PRECAUTIONS: Store in a cool dry , place away from sources of contamination. Keep container closed to avoid caking or contamination.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up or shovel spills and contain for possible re-use.

WASTE DISPOSAL METHODS : Dispose of waste as allowed by local, state and federal regulations.

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| Prepared by | WRC/CBG | //14RMODIF |
| Supersedes Previous Shee. | yes: September 10, 1991 | |
| Date Prepared: | September 29, 1991 | |
| Date printed | September 29, 1991 | |

ADF CHEMICALS

# PC EXTRA

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**PC EXTRA** contains a rust inhibitor to provide in-process protection of steel parts and inhibit darkening of brass parts. If your mixture does not provide sufficient rust inhibiting, use a stronger mix.

**DIRECTIONS FOR USE:** Mixing concentrations will vary with the cleaning requirements. For a light to medium grease or oil buildup, such as cutting and manufacturing oil on new parts, use 1 to 3 ounces of detergent per gallon of water in the cleaning solution tank. For parts with heavy layers of dirt and grease, such as automotive parts, use 3 to 9 ounces of detergent per gallon of water.

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**CAUTION:** Contains sodium metasilicate. Harmful if swallowed or splashed in eyes.

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FOR INDUSTRIAL USE ONLY
**CAUTION**
KEEP OUT OF REACH OF CHILDREN

| PART NO. | DESCRIPTION |
|---|---|
| 552102 | PC EXTRA 20# |
| 552103 | PC EXTRA 45# |
| 552105 | PC EXTRA 450# |

MADE IN U.S.A.

# ENVIRONMENTAL SERVICES GROUP

* * *

"LEADERS IN ENVIRONMENTALLY SAFE PRODUCTS"

## MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

SECTION I: Identity - TASC

Environmental Services Group, PO Box 1302, Englewood Cliffs, NJ 07632 - (201) 569-2020 - February 8, 1993

SECTION II: Hazardous Ingredients - Identity Information

Sodium Carbonate C.A.S.# 5968-11-6 | Sodium Metasilicate C.A.S.# 6834-92-0 | Tetrasodium EDTA C.A.S.# 64-02-8
These ingredients are irritants but are non-toxic and biodegradable.

SECTION III: Physical / Chemical Characteristics

Boiling Point: N/A | Specified Gravity (H2O=1): N/A | Vapor Pressure (MM Hg): N/A | Melting Point: N/A
Vapor Density (AIR=1): N/A | Evaporation Rate: N/A | Appearance & Odor: Aqua Powder/Odorless

SECTION IV: Fire & Explosion Hazard Data

Flash Point: None | Extinguishing Media: Water | Special Fire Fighting/Unusual Fire & Explosion Hazards: None

SECTION V: Reactivity Data

Stability: Stable | Conditions to Avoid: None | Incompatibiltiy (Materials to Avoid): Strong Acids
Hazardous Decompositon or Byproducts: None | Hazardous Polymerization: Will not occur | condition to Avoid: None

SECTION VI: Health Hazard Data

Routes of Entry: Inhalation: X - Skin: X - Ingestion: X
Health Hazards (Acute and Chronic): Irritation of the eyes or skin
Carcinogenicity: NTP: No - IARC Monographs: No - OSHA Regulated: NO
Signs and Symptoms of Exposure: Skin irritation
Medical Conditions Generally Aggravated by Exposure: Dermatitis
Emergency and First Aid Procedures: Eyes or skin: Flush with water - Inhalation: Remove to fresh air
Ingestion: Drink plenty of water, get medical attention

SECTION VII: Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled: Flush with water
Waste disposal method: According to Federal, State & Local regulations
Precautions to be taken in handling and storing: Keep container dry | Other precautions: None

SECTION VIII: Control Measures

Respiratory Protection (specify type): None required | Protective Gloves: Rubber | Eye Protection: Goggles
Ventilation: Local Exhaust: Acceptable - Mechanical: Not required - Special/Other: None
Other Protective Clothing or Equipment: None required | Work/Hygienic Practices: Wash with soap and water after use

NOTE: HMIS Ratings: Health: 1 - Flammability: 0 - Reactivity: 0

**ADF SYSTEMS, LTD.**
P.O. Box 278
Humboldt, IA 50548
(515) 332-5400

PRODUCT NAME: **PC EXTRA**

# MATERIAL SAFETY DATA SHEET ESSENTIALLY SIMILAR TO OSHA-20

NE = NOT ESTABLISHED NA = NOT APPLICABLE

## SECTION 1 - GENERAL INFORMATION

CHEMICAL FAMILY: Alkaline Cleaner
HAZARD CLASSIFICATION: Not regulated
SHIPPING NAME: Not regulated, use product name.

HAZARD SIGNALS:
HEALTH 1 INSTABILITY 0
FIRE 0 OTHER
(0 = insignificant; 1 = slight; 2 = moderate
3 = high; 4 = extreme. Describes short term hazards only)

## SECTION 2 - HAZARDOUS INGREDIENTS

| HAZARDOUS COMPONENTS | CAS # | TLV | OSHA PEL | Section 313? | % (optional) |
|---|---|---|---|---|---|
| Sodium metasilicate | 6834-92-0 | 2mg/$m^3$ | 2mg/$m^3$ | no | <50% |

## SECTION 3 - PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling point | NA. | Vapor pressure | NA. |
| Specific gravity | NA. | Vapor density | NA. |
| Percent volatile | NA. | Evaporation rate | NA. |
| Solubility in water | complete | | |
| Appearance and odor | dedusted granular white solid, essentially odorless | | |

## SECTION 4 - FIRE AND EXPLOSION

FLASH POINT(temp at which it gives off combustible vapors) n.a.
Flammable limits– lower: n.a.
Flammable limits– upper: n.a.
EXTINGUISHING MEDIA: No restrictions. (Product dissolves in water)
SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus. Use protective clothing to avoid skin contact with product.
UNUSUAL FIRE & EXPLOSION HAZARDS: None (non-combustible solid)

## SECTION 5 - REACTIVITY DATA

STABLE: yes conditions to avoid: none.
INCOMPATIBILITY: Strong acids and oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: oxides of carbon
HAZARDOUS POLYMERIZATION: will not occur.

Date Prepared: September 29, 1991
Date printed September 29, 1991

## SECTION 6 - HEALTH HAZARD DATA

Threshold limit value: NA. (blended product)

Health hazards - Chronic unknown.

This product has not been identified as a carcinogen or probable carcinogen by: NTP, IARC Monographs, or OSHA.

Medical conditions generally aggravated by exposure: unknown

EFFECTS OF OVEREXPOSURE

EYES Burns

SKIN possible irritation or burns upon prolonged contact.

INHALATION (of dust) irritation of nose and throat. Note, inhalation of dust is an unlikely route of exposure. The product is dedusted and non-volatile.

INGESTION Burns of mouth and mucous membranes.

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EYES Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if applicable. Contact a physician.

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## SECTION 7 - PROTECTIVE EQUIPMENT

RESPIRATOR TYPE: none normally required.

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| PART NO. | DESCRIPTION |
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SHIPPING NAME: Not regulated, use product name.

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HEALTH 1 INSTABILITY 0
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|---|---|---|---|---|---|
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## SECTION 3 - PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling point | NA. | Vapor pressure | NA. |
| Specific gravity | NA. | Vapor density | NA. |
| Percent volatile | NA. | Evaporation rate | NA. |
| Solubility in water | complete | | |
| Appearance and odor | dedusted granular white solid, essentially odorless | | |

## SECTION 4 - FIRE AND EXPLOSION

FLASH POINT(temp at which it gives off combustible vapors) n.a.
Flammable limits– lower: n.a.
Flammable limits– upper: n.a.
EXTINGUISHING MEDIA: No restrictions. (Product dissolves in water)
SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus. Use protective clothing to avoid skin contact with product.
UNUSUAL FIRE & EXPLOSION HAZARDS: None (non-combustible solid)

## SECTION 5 - REACTIVITY DATA

STABLE: yes conditions to avoid: none.
INCOMPATIBILITY: Strong acids and oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: oxides of carbon
HAZARDOUS POLYMERIZATION: will not occur.

Date Prepared: September 29, 1991
Date printed September 29, 1991

## SECTION 6 - HEALTH HAZARD DATA

Threshold limit value: NA. (blended product)

Health hazards - Chronic unknown.

This product has not been identified as a carcinogen or probable carcinogen by: NTP, IARC Monographs, or OSHA.

Medical conditions generally aggravated by exposure: unknown

EFFECTS OF OVEREXPOSURE

EYES Burns

SKIN possible irritation or burns upon prolonged contact.

INHALATION (of dust) irritation of nose and throat. Note, inhalation of dust is an unlikely route of exposure. The product is dedusted and non-volatile.

INGESTION Burns of mouth and mucous membranes.

EMERGENCY AND FIRST AID PROCEDURES

EYES Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if applicable. Contact a physician.

SKIN Rinse thoroughly with water. Contact a physician if irritation persists.

INHALATION Remove to fresh air. If breathing dificulties occur seek medical attention.

INGESTION Drink large quantities of milk or water. Do not induce vomiting. Call a physician. (MEDICAL EMERGENCY HOTLINE NUMBER AT TOP OF THIS FORM)

## SECTION 7 - PROTECTIVE EQUIPMENT

RESPIRATOR TYPE: none normally required.

VENTILATION Use with adequate ventilation to avoid breathing dust. (product is dedusted). Avoid breathing concentrated mists or sprays.

EYE PROTECTION safety goggles and/or face shield where conditions warrant.

PROTECTIVE GLOVES rubber gauntlet type.

OTHER PROTECTIVE EQUIPMENT Eyewash stations. Rubber protective clothing as required to avoid prolonged or repeated skin contact.

## SECTION 8-PRECAUTIONS FOR HANDLING AND USE

HANDLING AND STORING:Incidental contact with this product normally causes no harm. However, as with any industrial cleaner, some basic safety measures should be observed. Guard against ingestion of dusts, etc. and wash thoroughly after handling. Do not get in eyes, on skin, or leave on clothing.

OTHER PRECAUTIONS: Store in a cool dry , place away from sources of contamination. Keep container closed to avoid caking or contamination.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up or shovel spills and contain for possible re-use.

WASTE DISPOSAL METHODS : Dispose of waste as allowed by local, state and federal regulations.

DISCLAIMER: The above information is, to the best of our knowledge, current, accurate, and complete based on information reasonably available to us as of the date of preparation of this form. However, it is the user's responsibility to determine the safety, toxicity and suitability for his or her own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by us as to the effects of such use or on the safety or toxicity of this product. Nor do we assume any liability arising out of use by others of the product. Nor is the information herein to be construed as absolutely complete, since additional information may be necessary or desirable when exceptional conditions or circumstances exist or because of applicable laws or regulations.

| | | |
|---|---|---|
| Prepared by | WRC/CBG | //14RMODIF |
| Supersedes Previous Shee. | yes: September 10, 1991 | |
| Date Prepared: | September 29, 1991 | |
| Date printed | September 29, 1991 | |

ADF CHEMICALS

# PC EXTRA

**PC EXTRA** is a biodegradable, non-caustic detergent designed for use in ADF parts washers. This alkaline detergent contains a unique blend of surfactants that provide a low foaming cleaner that is very effective in removing grease, oil, and other types of contamination. **PC EXTRA** is recommended for use on steel, stainless steel, brass, aluminum, and copper parts.

**PC EXTRA** contains a rust inhibitor to provide in-process protection of steel parts and inhibit darkening of brass parts. If your mixture does not provide sufficient rust inhibiting, use a stronger mix.

**DIRECTIONS FOR USE:** Mixing concentrations will vary with the cleaning requirements. For a light to medium grease or oil buildup, such as cutting and manufacturing oil on new parts, use 1 to 3 ounces of detergent per gallon of water in the cleaning solution tank. For parts with heavy layers of dirt and grease, such as automotive parts, use 3 to 9 ounces of detergent per gallon of water.

It is recommended that **PC EXTRA** be premixed for faster and more consistent dissolving into a solution. Warm water further aids this process.

**CAUTION:** Contains sodium metasilicate. Harmful if swallowed or splashed in eyes.

**FIRST AID:** If swallowed, do not induce vomiting. Drink large quantities of water and call physician immediately. If splashed in eyes, flush with water for at least 15 minutes and call physician immediately. Avoid prolonged or repeated contact with skin.

FOR INDUSTRIAL USE ONLY
**CAUTION**
KEEP OUT OF REACH OF CHILDREN

| PART NO. | DESCRIPTION |
|---|---|
| 552102 | PC EXTRA 20# |
| 552103 | PC EXTRA 45# |
| 552105 | PC EXTRA 450# |

MADE IN U.S.A.

# Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

*Specific Information by Chemical*

**Facility Identification**
Name SULZER METCO (US) INC.
Street 1972 MEIJER DR.
City TROY County OAKLAND State MI Zip 48084
SIC Code 3399 Dun & Brad Number

FOR OFFICIAL USE ONLY
ID #
Date Received

**Owner/Operator Name**
Name SULZER METCO INC. Phone (516) 338-2473
Mail Address 1106 PROSPECT AVE.
WESTBURY, NY 11590

**Emergency Contact**
Name DONALD GRATTON Title CLAD LEADER
Phone (810) 329-7835 24 Hr. Phone (800)424-9300 CHEMTREC
Name STEVE MAKOWSKI Title PROD. MFG.
Phone (248) 585-6074 24 Hr. Phone (800) 424-9300 CHEMTREC

*Important: Read all instructions before completing form*

Reporting Period From January 1 to December 31, 1999

[X] Check if information below is identical to the information submitted last year.

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Container Type | Pressure | Temperature | Storage Codes and Locations (Non-Confidential) Storage Locations | Optional |
|---|---|---|---|---|---|---|---|
| CAS 007440 02 0 Trade Secret<br>Chem. Name NICKEL<br>Check all that apply [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name N/A | [X] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 0 5 Max. Daily Amount (code)<br>0 4 Avg. Daily Amount (code)<br>3 6 5 No. of Days On-site (days) | D<br>E<br>F<br>N<br>R | 1<br>1<br>1<br>1<br>1 | 4<br>4<br>4<br>4<br>4 | THROUGH – OUT FACILITY IN<br>NON OFFICE AREAS | [ ] |
| CAS 007440 47 3 Trade Secret<br>Chem. Name CHROMIUM<br>Check all that apply [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name N/A | [X] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 0 4 Max. Daily Amount (code)<br>0 4 Avg. Daily Amount (code)<br>3 6 5 No. of Days On-site (days) | D<br>E<br>F<br>J<br>N<br>R | 1<br>1<br>1<br>1<br>1<br>1 | 4<br>4<br>4<br>4<br>4<br>4 | THROUGH – OUT FACILITY IN<br>NON OFFICE AREAS | [ ] |
| CAS 007440 48 4 Trade Secret<br>Chem. Name COBALT<br>Check all that apply [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name N/A | [X] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 0 4 Max. Daily Amount (code)<br>0 4 Avg. Daily Amount (code)<br>3 6 5 No. of Days On-site (days) | D<br>E<br>F<br>J<br>N<br>R | 1<br>1<br>1<br>1<br>1<br>1 | 4<br>4<br>4<br>4<br>4<br>4 | THROUGH – OUT FACILITY IN<br>NON OFFICE AREAS | [ ] |

**Certification** *(Read and sign after completing all sections)*
I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 2, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

DONALD A. GRATTON CLAD LEADER — Name and official title of owner/operator OR owner/operator's authorized representative
Donald A. Gratton — Signature
25-Feb-00 — Date signed

**Optional Attachments**
[ ] I have attached a site plan
[ ] I have attached a list of site coordinate abbreviations
[ ] I have attached a description of dikes and other safeguards measures

**Rolli, Alfonso**

**From:** epacdxnode@csc.com
**Sent:** Wednesday, July 09, 2008 11:50 AM
**To:** Rolli, Alfonso; khale@csc.com; nodehelpdesk@csc.com
**Subject:** EPCRA section 313 TRI submission has been CERTIFIED

Your EPCRA section 313 (TRI) submission has been PREPARED, CERTIFIED and SENT to U.S. EPA for the facility and chemical(s) shown below.

Reference Transaction ID: 4f875162-3e50-4924-929b-12330b681ee4
Document Name: TRI000220080701002117HALEDOGG Prepared by: khale@csc.com Date Prepared: Jul 1, 2008 12:23:09 AM Certifying Official:
Name: Mr. Alfonso A. Rolli
Title: Certifying Official
E-mail: ALFONSO.ROLLI@SULZER.COM
Date Certified and
Sent to EPA: Jul 9, 2008 11:50:02 AM

TRI Facility ID: 11590PRKNL1101P

Facility: SULZER METCO (US) INC.
1101 PROSPECT AVE
WESTBURY NEW YORK, 11590

| Chemical Name | RY | CAS | Form | Revision |
|---|---|---|---|---|
| Aluminum (fume or dust) | 2007 | 7429905 | R | No |
| Chromium | 2007 | 7440473 | R | No |
| Chromium Compounds (except for chromite ore mined in the Transvaal Reg | 2007 | | | N090 |
| R No | | | | |
| Cobalt | 2007 | 7440484 | R | No |
| Copper | 2007 | 7440508 | R | No |
| Nickel | 2007 | 7440020 | R | No |

You may wish to print a copy of this receipt and keep it for your records. Do NOT send this receipt to EPA.

United States Environmental Protection Agency Central Data Exchange

SULZER METCO (US) INC.
JUL 09 2008
EHS DEPARTMENT

**U.S. Environmental Protection Agency**

# TRIME Web Based (TRIMEweb)

Logged in as, AROL2765.

MyCDX > Submissions > Confirmation > Verify CDX Account > Receipt List > Receipt

About CDX
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Logout

## Submission Details

**The submission has been CERTIFIED.**

| Status | Date | Time |
|---|---|---|
| [X]Prepared | 7/1/2008 | 12:23:09 AM |
| [X]Certified | Processing... | |
| [X]Sent to EPA | Processing... | |
| []Cancelled | | |

**Reference number: TRI000220080701002117HALEDOGG**

Preparer Email: khale@csc.com
Certifying Official: Alfonso Rolli
Title: EHS Engineering Manager
E-mail: ALFONSO.ROLLI@SULZER.COM

**State Data Exchange State:** **Non-participating**

**TRI Facility ID: 11590PRKNL1101P**
Facility: SULZER METCO (US) INC.
1101 PROSPECT AVE

WESTBURY, NY 11590

SULZER METCO (US) INC.

JUL 09 2008

EHS DEPARTMENT

| TRI Chemical or Category | CAS | FORM | RY | Revision |
|---|---|---|---|---|
| Aluminum (fume or dust) | 7429905 | R | 2007 | N |
| Chromium | 7440473 | R | 2007 | N |
| Chromium Compounds (except for chromite ore mined in the Transvaal Reg | N090 | R | 2007 | N |
| Cobalt | 7440484 | R | 2007 | N |
| Copper | 7440508 | R | 2007 | N |
| Nickel | 7440020 | R | 2007 | N |

You are in an encrypted secure session.

Help Desk: (888) 890-1995
EPA Home | Privacy and Security Notice | Contact Us

Last updated on March 27, 2008.
URL: https://cdx.epa.gov/ssl/TRIMEweb/Certify/Receipt.aspx?transactionId=4f875162-3e50-4924-929b-12330b681ee4

## Rolli, Alfonso

**From:** Sharon Puryear [spuryear@csc.com] on behalf of EPA CDX HELPDESK [epacdx@csc.com]
**Sent:** Wednesday, July 09, 2008 11:32 AM
**To:** Rolli, Alfonso
**Subject:** Your ESA has been approved.

**Attachments:** How to Certify your TRIMEweb Submissions.doc

How to Certify your TRIMEweb S...

Your ESA has been approved. You can now log in to your account and approve your submission.

SULZER METCO (US) INC.
JUL 09 2008
EHS DEPARTMENT

U.S. EPA CDX Help Desk
Computer Sciences Corporation
Phone: 888-890-1995
Fax: 301-429-6550
Email: epacdx@csc.com
Hours: 8:00 am - 6:00 pm EST/EDT

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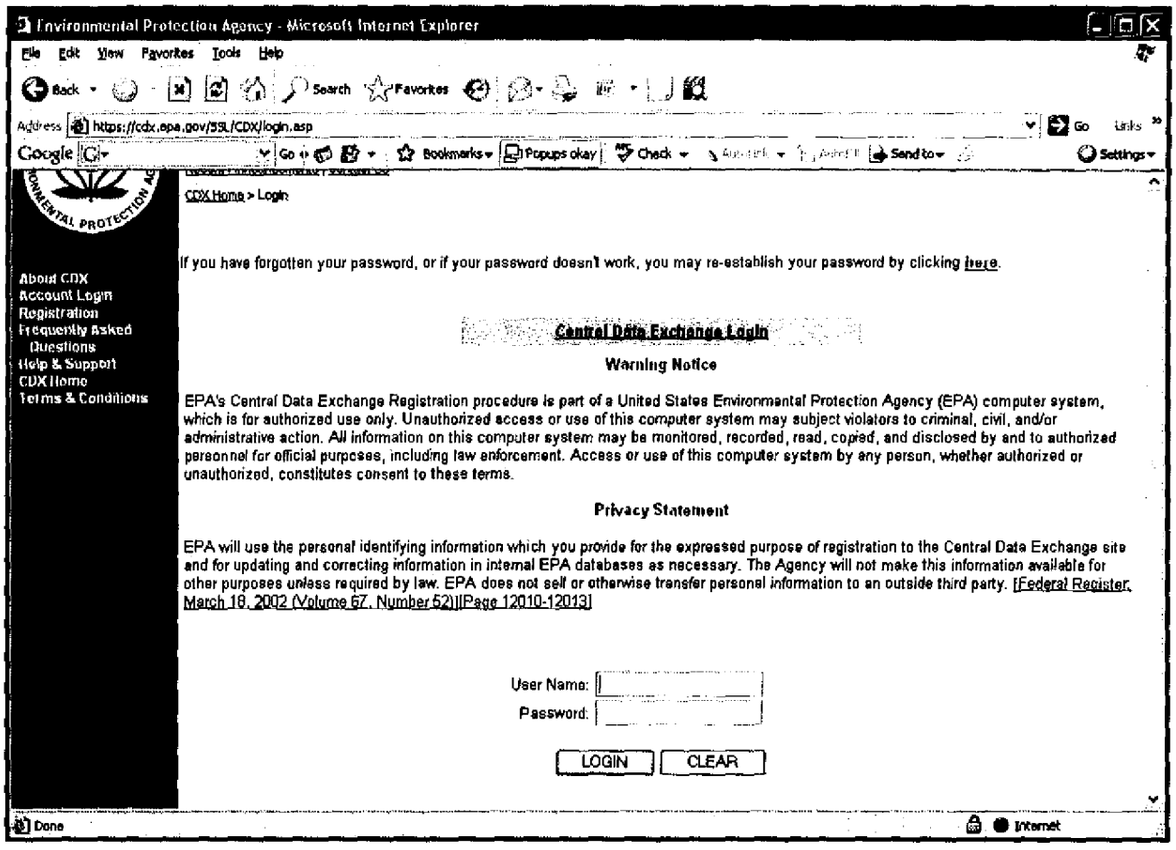
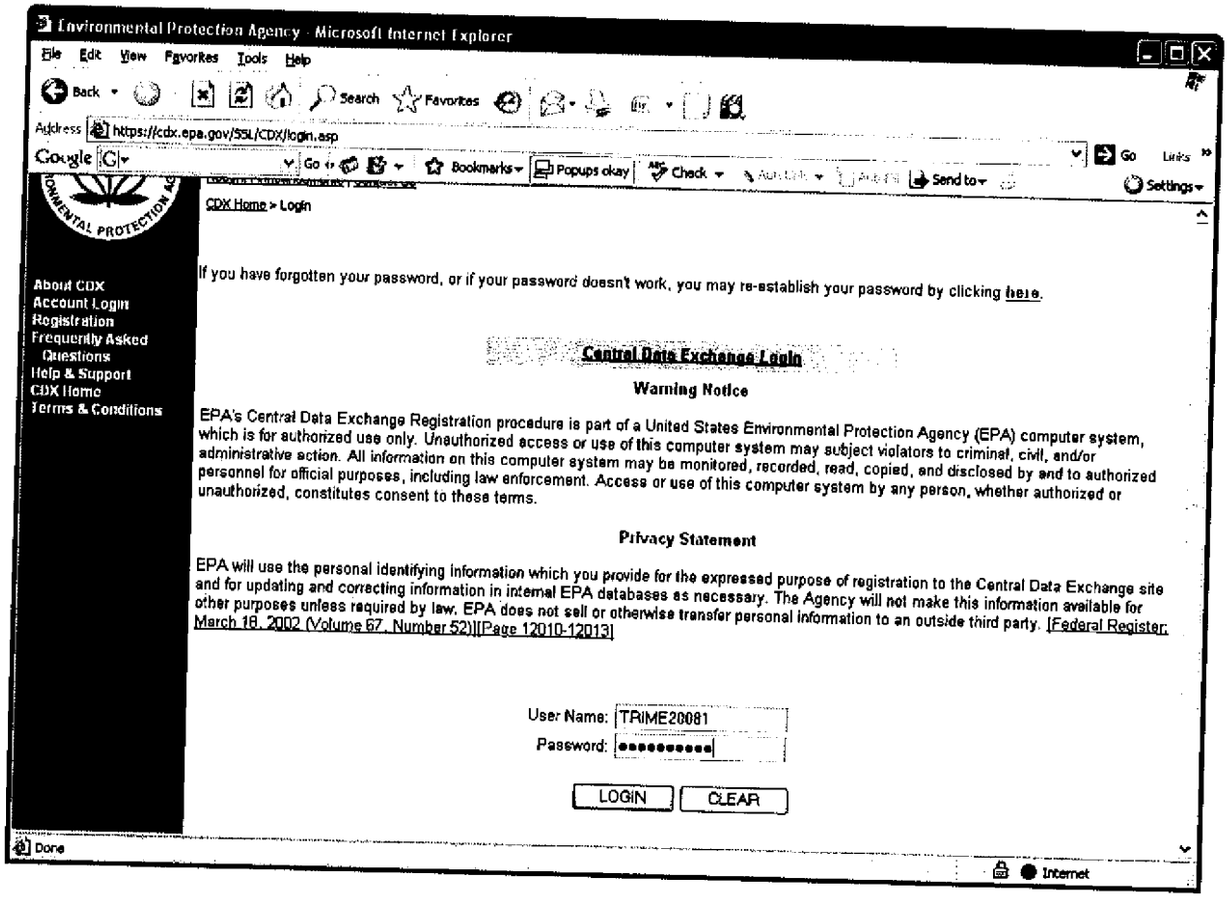
This is a PRIVATE message. If you are not the intended recipient, please delete without copying and kindly advise us by e-mail of the mistake in delivery. NOTE: Regardless of content, this e-mail shall not operate to bind CSC to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of e-mail for such purpose.
---

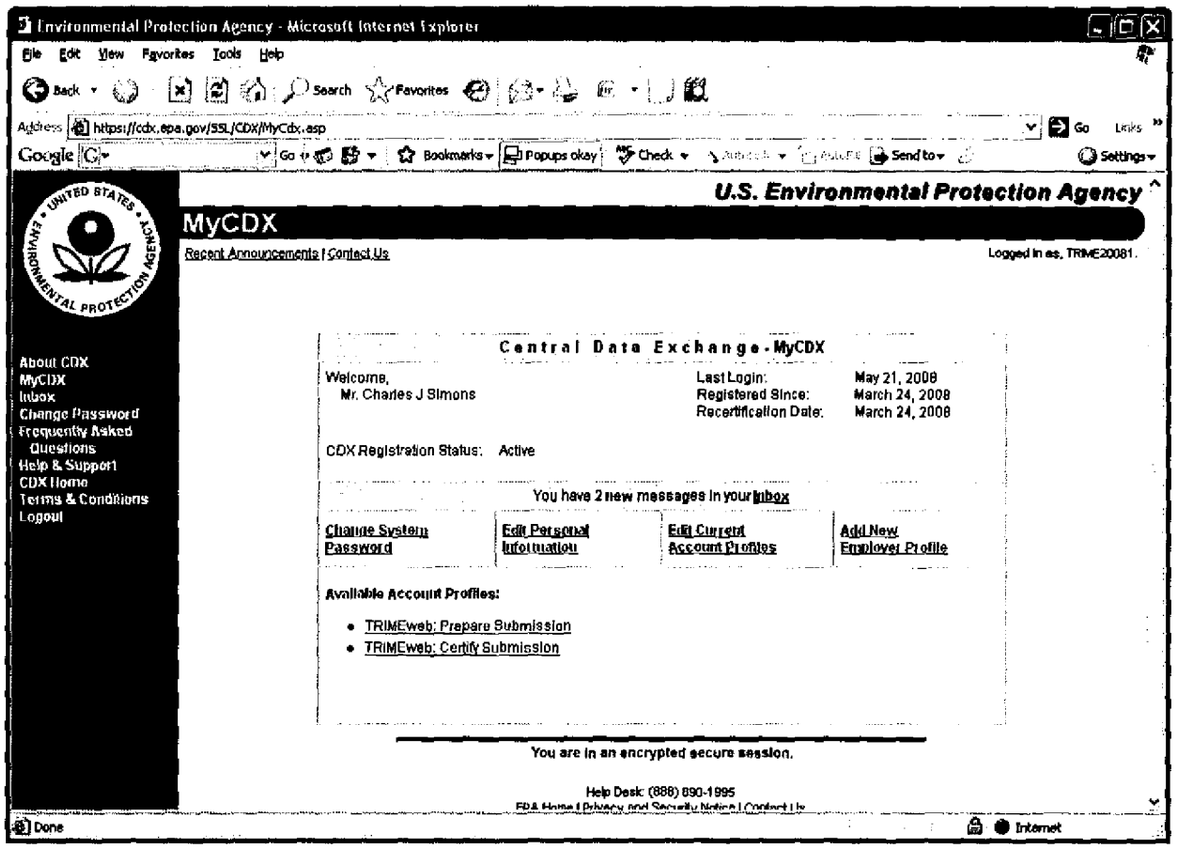



Log into your CDX account with the link https://cdx.epa.gov/SSL/CDX/login.asp

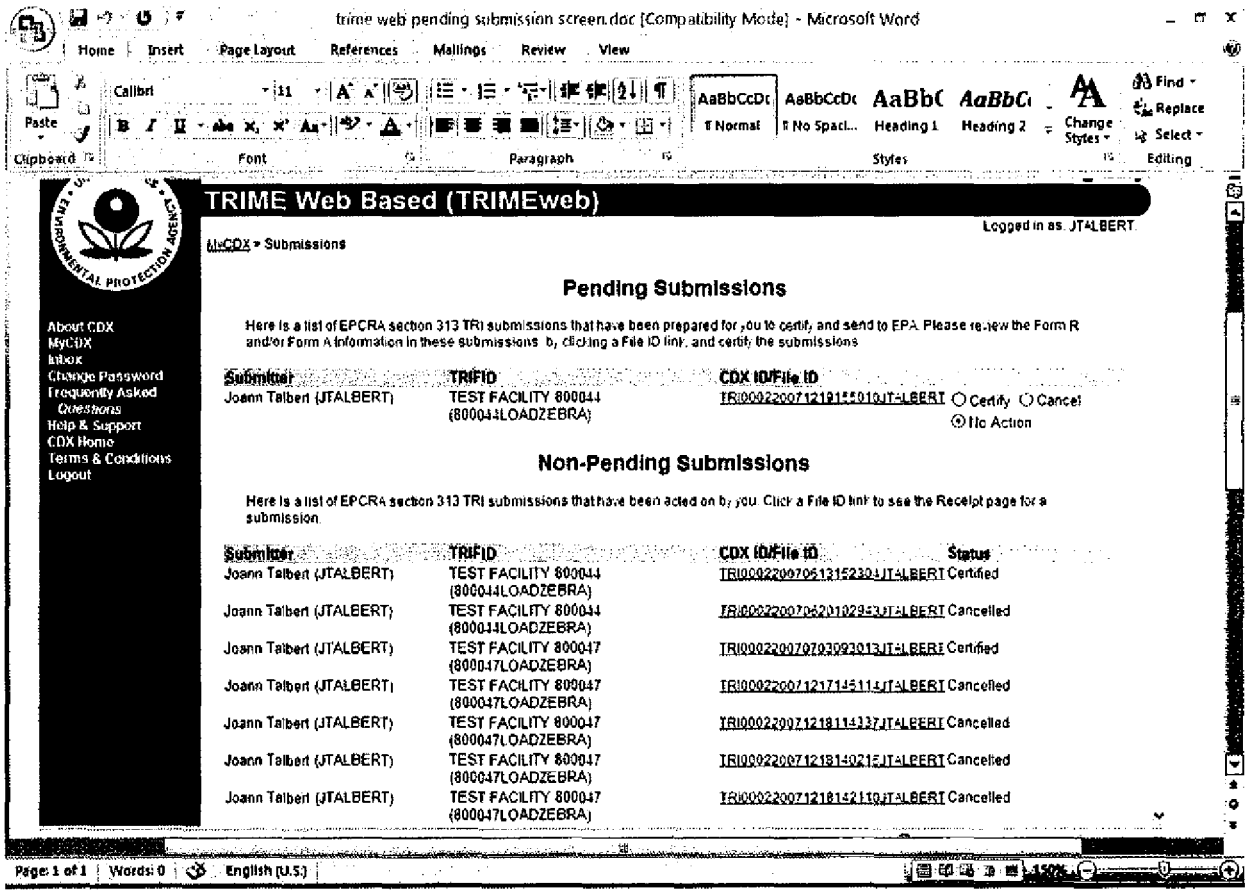
SULZER METCO (US) INC.
JUL 09 2008
EHS DEPARTMENT




Put in your use name and password and click login




Click on the link under Available Account Profiles which is TRIMEweb Certify Submission




This is where it will take you to Certify your Pending Submissionsm. Just read the instructions above.

SULZER METCO (US) ..

JUL 01 2008

EHS DEPARTMENT

## Toxics Release Inventory (TRI) Electronic Signature Agreement

In accepting the electronic signature credential issued by the United States Environmental Protection Agency (EPA) to sign electronic TRI forms submitted to EPA's Central Data Exchange (CDX), on behalf of:

| | |
|---|---|
| Company Name: | Sulzer Metco US Inc |
| Address: | 1101 Prospect Avenue |
| City/State/Zip Code | Westbury, NY 11590 |
| Phone Number: | 5163382337 |
| Site Name: | |
| TRIFID: | 11590PRKNL1101P |

I, Alfonso A. Rolli
(Name of authorized official)

(1) Agree to protect my TRI electronic signature credential, CDX user name (Login ID) and CDX password from use by anyone except me. I will not divulge or delegate my CDX user name and password to any other individual; I will not store my password in an unprotected location; and I will not allow my password to be written into computer scripts to achieve automated login;

(2) Agree to contact the Central Data Exchange (CDX) Help Desk at 1-888-890-1995 as soon as possible, but no later than 24 hours, after suspecting or determining that my CDX user name and password and/or electronic signature credential have become lost, stolen or otherwise compromised;

(3) Understand that I will be informed through my registered electronic mail (e-mail) address whenever my user identification or password have been modified;

(4) Understand that CDX reports the last date my CDX user name and password were used immediately after successfully logging into CDX;

(5) Agree that I will review the contents of all TRI electronic submissions prior to submission;

(6) Understand and agree that I will be held as legally bound, obligated, or responsible by my use of my electronic signature as I would be using my hand-written signature.

(7) Understand that whenever I successfully certify, electronically sign and submit an electronic TRI document to the US EPA's CDX, I will receive an e-mail notification at my registered e-mail address; This email will inform me that a submission has been made to CDX from my user account and will contain the name of the preparer, the certifier and the facility. In addition, it will also contain the date/time of certification and the name of the certified electronic document. Finally, the email will also contain a copy of record of my submission for my review.

(8) Agree that if I receive notification for a submission from my account that I do not believe that I submitted, I will notify the CDX Help Desk as soon as possible, but no later than 24 hours, after receipt.

(9) Agree to contact CDX Help Desk if I do not receive a notification receipt to either my CDX Inbox or registered email within 5 business days for any submission that I certified using my electronic signature credential.

Form R 04
ID: arl2765 PASS: angelant1

(10) I will notify CDX within 2 weeks in the event that I am no longer a certifying official for the company listed in this agreement so that my TRI electronic signature credential may be revoked for the said facility.

(11) Agree to retain a copy of this signed agreement as long as I continue to represent the regulated entity specified above as signatory of that organization's electronic submissions.

Shown below is the CDX UserID you created while registering for TRIMEweb. Your CDX UserID will serve as your electronic signature credential when you certify your TRI submissions. You will be asked your CDX UserID and Password each time you electronically sign a TRI form submission.

AROL2765

E-mail Address for CDX correspondence: alfonso.rolli@sulzer.com

Name of electronic signature holder: ALFONSO ROLLI

Signature of electronic signature holder:

Official Title: EHS MANAGER

Date: 1 JUL 2008

**Definitions**

1. Electronic signature means any information in digital form that is included in or logically associated with an electronic document for the purpose of expressing the same meaning and intention as would a handwritten signature if affixed to an equivalent paper document with the same reference to the same content. The electronic document bears or has on it an electronic signature where it includes or has logically associated with it such information.

2. Electronic signature credential refers to the token held by the an individual user that is used to electronically sign electronic submissions. In the case of TRI, the electronic signature credential consists of the CDX UserID and password that a TRI Certifier entered when they created their CDX account. The CDX UserID and password will be asked each time a user attempts to certify a TRI electronic submission through CDX and the correct answers will allow for the certification and submission of the TRI file to EPA.

PLEASE MAIL THIS DOCUMENT AS SOON AS POSSIBLE TO:

U.S. Environmental Protection Agency
Attention: TRI Data Processing Center
P. O. Box 1519
Lanham, MD 20703-1519

Electronic signature agreements sent by certified mail or overnight mail (i.e. Fed Ex, UPS, etc.) only, should be addressed to:

ATTN: TRI-MEweb ESA
TRI Data Processing Center
c/o Computer Sciences Corporation
Suite 150
8400 Corporate Drive
Landover, MD 20785-2294
Phone: 301-429-5005

Electronic Signature Agreement (ESA).
Complete the ESA, sign and mail it to the TRI Data Processing Center. This needs to be signed and returned before you will be able to certify submissions and the process is estimated to take a minimum of 5 business days.

If you require assistance please call the CDX Help Desk toll free at 888-890-1995. You may also view tutorials relating to registration and certification at www.epa.gov/tri

Please use the link below to log in to the Central Data Exchange, If the following URL is not a hyperlink, please cut and paste the address into your Internet browser.

https://cdx.epa.gov

Reference Transaction ID: 4f875162-3e50-4924-929b-12330b681ee4
Document Name: TRI00022008070100211 7HALEDOGG Prepared by: khale@csc.com Date Prepared: Jul 1, 2008 12:23:09 AM

TRI Facility ID: 11590PRKNL1101P

Facility: SULZER METCO (US) INC.
1101 PROSPECT AVE
WESTBURY NEW YORK, 11590

| Chemical Name | RY | CAS | Form | Revision |
|---|---|---|---|---|
| Aluminum (fume or dust) | 2007 | 7429905 | R | No |
| Chromium | 2007 | 7440473 | R | No |
| Chromium Compounds (except for chromite ore mined in the Transvaal Reg | 2007 | N090 | R | No |
| Cobalt | 2007 | 7440484 | R | No |
| Copper | 2007 | 7440508 | R | No |
| Nickel | 2007 | 7440020 | R | No |

United States Environmental Protection Agency Central Data Exchange

PM 4/12e RP

## Rolli, Alfonso

**From:** Kathy A Hale [khale@csc.com]
**Sent:** Tuesday, July 01, 2008 12:35 AM
**Cc:** Rolli, Alfonso; tri-me@csc.com
**Subject:** Re: EPCRA section 313 TRI submission waiting for certification

There was a problem with your original submission which resulted in it not showing on the your pending certification list. I have cancelled and resubmitted your data to assist you in meeting the reporting deadline.

Kathy Hale
TRI Data Processing Center Database Manager Computer Sciences Corporation 8400 Corporate Drive New Carrollton, MD 20785
(301) 306-6401 (office)
(301) 429-6550 (fax)
email: khale@csc.com

Computer Sciences Corporation
Registered Office: 3170 Fairview Park Drive, Falls Church, Virginia 22042, USA
Registered in Nevada, USA No: C-489-59

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This is a PRIVATE message. If you are not the intended recipient, please delete without copying and kindly advise us by e-mail of the mistake in delivery.
NOTE: Regardless of content, this e-mail shall not operate to bind CSC to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of e-mail for such purpose.

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epacdxnode@csc.com

07/01/2008 12:23 AM

To: ALFONSO.ROLLI@SULZER.COM, Kathy A Hale/CIV/CSC@CSC

cc:

Subject: EPCRA section 313 TRI submission waiting for certification

The individual listed below has prepared an EPCRA section 313 (TRI) for the facility and chemical(s) shown below and has identified you as the certifying official. Please log in to EPA's Central Data Exchange (CDX) and select, review and certify the Form R and/or Form A information in this submission. (To cancel this submission, follow the link and click Cancel).
CDX will not send this submission to EPA until you have certified it.

If you have not registered as a certifier for this facility, you may do so by logging into CDX, clicking on the "TRI-MEweb: Certify Submission" link, and following the instructions provided. As part of the Registration process, you will need to create an

## *** State Form Only: Do Not Submit to EPA ***

*(IMPORTANT: Type or print; read instructions before completing form)*

Form Approved OMB Number:**2070-0143**
Approval Expires:**03/31/2011** **Page 1 of 5**

| EPA United States Environmental Protection Agency | **FORM R** Section 313 of the Emergency Planning and Community Right-to-know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act. | TRI Facility ID Number: **11590PRKNL1101P**<br>Toxic Chemical, Category or Generic Name: **Copper** |
|---|---|---|

| WHERE TO SEND COMPLETED FORMS: | 1. TRI Data Processing Center<br>P.O.Box 1513<br>Lanham, MD 20703-1513<br>***** State Form Only: Do Not Submit to EPA ***** | 2. APPROPRIATE STATE OFFICE<br>(See instructions in Appendix F) |
|---|---|---|

| This section only applies if you are revising or withdrawing a previously submitted form, otherwise leave blank: | Revision (enter up to two code(s)) [ ][ ] | Withdrawal (enter up to two code(s)) [ ][ ] |
|---|---|---|

Important: See Instructions to determine when "Not Applicable (NA)" boxes should be checked.

Part I. FACILITY IDENTIFICATION INFORMATION

SECTION 1. REPORTING YEAR : **2007**

SECTION 2. TRADE SECRET INFORMATION

| 2.1 Are you claiming the toxic chemical identified on page 2 trade secret?<br>[ ] Yes (Answer question 2.2; Attach substantiation forms)<br>[ X ] NO (Do not answer 2.2; Go to Section 3) | 2.2 Is this copy<br>[ ] Sanitized [ ] Unsanitized<br>(Answer only if "YES" in 2.1) | |
|---|---|---|

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| **Alfonso Rolli : EHS Engineering Manager** | | |

SECTION 4. FACILITY IDENTIFICATION

| 4.1 | | TRI Facility ID Number | **11590PRKNL1101P** |
|---|---|---|---|
| Facility or Establishment Name<br>**SULZER METCO (US) INC.** | | Facility or Establishment Name or Mailing Address(if different from street address)<br>**NA** | |
| Street<br>**1101 PROSPECT AVE** | | Mailing Address | |
| City/County/State/Zip Code<br>**WESTBURY / Nassau / NY / 11590** | | City/State/Zip Code<br>/ / | Country (Non-US) |

| 4.2 | This report contains information for : (Important: check a or b; check c or d if applicable) | a. [ X ] An Entire facility | b. [ ] Part of a facility | c. [ ] A Federal facility | d. [ ] GOCO |
|---|---|---|---|---|---|

| 4.3 | Technical Contact name | **ALFONSO ROLLI** | Email Address<br>**ALFONSO.ROLLI@SULZER.COM** | Telephone Number (include area code)<br>**5163382337** |
|---|---|---|---|---|
| 4.4 | Public Contact name | **ALFONSO ROLLI** | Email Address | Telephone Number (include area code)<br>**5163382337** |

| 4.5 | NAICS Code (s) (6 digits) | a. **332117 (Primary)** | b. **333298** | c. | d. | e. | f. |
|---|---|---|---|---|---|---|---|

| 4.7 | Dun and Bradstreet Number(s) (9 digits) |
|---|---|
| a. | **152084398** |
| b. | |

SECTION 5. PARENT COMPANY INFORMATION

| 5.1 | Name of Parent Company | NA [ ] | **SULZER US INDUSTRIES HOLDING INC.** |
|---|---|---|---|
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | **001826957** |

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**EPA FORM R**
**PART II. CHEMICAL - SPECIFIC INFORMATION**

TRI Facility ID Number: **11590PRKNL1101P**

Toxic Chemical, Category or Generic Name: **Copper**

SECTION 1. TOXIC CHEMICAL IDENTITY (Important DO NOT complete this section if you completed Section 2 below.)

1.1 CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)

**7440508**

1.2 Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)

**Copper**

1.3 Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive).

**NA**

1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| NA [ ] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | |

SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

2.1 Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, spaces, and punctuation.)

**NA**

SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | 3.2 Process the toxic chemical: | 3.3 Otherwise use the toxic chemical: |
|---|---|---|
| a. [ ] Produce b. [ ] Import | | |
| If produce or import:<br>c. [ ] For on-site use/processing<br>d. [ ] For sale/distribution<br>e. [ ] As a byproduct<br>f. [ ] As an impurity | a. [ ] As a reactant<br>b. [ X ] As a formulation component<br>c. [ ] As an article component<br>d. [ X ] Repackaging<br>e. [ ] As an impurity | a. [ ] As a chemical processing aid<br>b. [ ] As a manufacturing aid<br>c. [ ] Ancillary or other use |

SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

4.1 [ **04** ] (Enter two-digit code from instruction package.)

SECTION 5.QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA [ ] | 0 | O | |
| 5.2 | Stack or point air emissions | NA [ ] | 0 | O | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |

*For Dioxin and Dioxin-like Compounds, report in grams/year
**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

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| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Copper |
|---|---|

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I wells | [ X ] | | |
| 5.4.2 | Underground Injection onsite to Class II-V wells | [ X ] | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA subtitle C landfills | [ X ] | | |
| 5.5.1.B | Other landfills | [ X ] | | |
| 5.5.2 | Land treatment/application farming | [ X ] | | |
| 5.5.3A | RCRA Subtitle C surface impoundments | [ X ] | | |
| 5.5.3B | Other surface impoundments | [ X ] | | |
| 5.5.4 | Other disposal | [ X ] | | |

SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

| 6.1.A.1 Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

*For Dioxin and Dioxin-like Compounds, report in grams/year

**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Copper |
|---|---|

| SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6.2.1 Off-Site EPA Identification Number (RCRA ID No.) | | | | | NA | | | | |
| Off-Site Location Name | | | | | PM RECOVERY | | | | |
| Off-Site Address | | | | | 420 S. CASCADE STREET | | | | |
| City | NEW CASTLE | State | PA | County | Lawrence | Zip | 16101 | Country (Non-US) | |
| Is location under control of reporting facility or parent company? | | | | | | [ ] Yes [ X ] No | | | |

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 28200 | 1. C | 1. M24 |

SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ X ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | d. Waste Treatment Efficiency Estimate |
|---|---|---|

*For Dioxin and Dioxin-like Compounds, report in grams/year

**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

**EPA FORM R**
**PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)**

TRI Facility ID Number: **11590PRKNL1101P**

Toxic Chemical, Category or Generic Name: **Copper**

SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

SECTION 7C. ON-SITE RECYCLING PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | 0 | 0 | NA | NA |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | NA | NA | NA | NA |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | 62915 | 28200 | 60000 | 60000 |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | 0 | | |
| 8.9 | Production ratio or activity index | | 1.05 | | |
| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | | |

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | | | |
| 8.11 | If you wish to submit additional optional information on source reduction, recycling, or pollution control activities, check "Yes." | Yes [ ] | | |

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*For Dioxin and Dioxin-like Compounds, report in grams/year

| TRI Facility ID Number |
| --- |
| **11590PRKNL1101P** |
| Toxic Chemical, Category or Generic Name |
| **Copper** |

| Additional optional information on source reduction, recycling, or pollution control activities. |
| --- |

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Form Approved OMB Number:2070-0143
*(IMPORTANT: Type or print; read instructions before completing form)* Approval Expires:03/31/2011 **Page 1 of 5**

| EPA United States Environmental Protection Agency | **FORM R** Section 313 of the Emergency Planning and Community Right-to-know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act. | TRI Facility ID Number: **11590PRKNL1101P**; Toxic Chemical, Category or Generic Name: **Chromium** |
|---|---|---|

| WHERE TO SEND COMPLETED FORMS: | 1. TRI Data Processing Center<br>P.O.Box 1513<br>Lanham, MD 20703-1513<br>***** State Form Only: Do Not Submit to EPA ***** | 2. APPROPRIATE STATE OFFICE<br>(See instructions in Appendix F) |
|---|---|---|

| This section only applies if you are revising or withdrawing a previously submitted form, otherwise leave blank: | Revision (enter up to two code(s)) [ ][ ] | Withdrawal (enter up to two code(s)) [ ][ ] |
|---|---|---|

Important: See Instructions to determine when "Not Applicable (NA)" boxes should be checked.

Part I. FACILITY IDENTIFICATION INFORMATION

SECTION 1. REPORTING YEAR : **2007**

SECTION 2. TRADE SECRET INFORMATION

| 2.1 Are you claiming the toxic chemical identified on page 2 trade secret?<br>[ ] Yes (Answer question 2.2; Attach substantiation forms)<br>[ **X** ] NO (Do not answer 2.2; Go to Section 3) | 2.2 Is this copy<br>[ ] Sanitized [ ] Unsanitized<br>(Answer only if "YES" in 2.1) | |
|---|---|---|

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| **Alfonso Rolli : EHS Engineering Manager** | | |

SECTION 4. FACILITY IDENTIFICATION

| 4.1 | | TRI Facility ID Number | **11590PRKNL1101P** |
|---|---|---|---|
| Facility or Establishment Name<br>**SULZER METCO (US) INC.** | | Facility or Establishment Name or Mailing Address(if different from street address)<br>**NA** | |
| Street<br>**1101 PROSPECT AVE** | | Mailing Address | |
| City/County/State/Zip Code<br>**WESTBURY / Nassau / NY / 11590** | | City/State/Zip Code<br>/ / | Country (Non-US) |

| 4.2 | This report contains information for : (Important: check a or b; check c or d if applicable) | a. [ **X** ] An Entire facility | b. [ ] Part of a facility | c. [ ] A Federal facility | d. [ ] GOCO |
|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.3 | Technical Contact name | **ALFONSO ROLLI** | Email Address<br>**ALFONSO.ROLLI@SULZER.COM** | | Telephone Number (include area code)<br>**5163382337** | | |
| 4.4 | Public Contact name | **ALFONSO ROLLI** | Email Address | | Telephone Number (include area code)<br>**5163382337** | | |
| 4.5 | NAICS Code (s) (6 digits) | a. **332117 (Primary)** | b. **333298** | c. | d. | e. | f. |

| 4.7 | Dun and Bradstreet Number(s) (9 digits) |
|---|---|
| a. | **152084398** |
| b. | |

SECTION 5. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| 5.1 | Name of Parent Company | NA [ ] | **SULZER US INDUSTRIES HOLDING INC.** |
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | **001826957** |

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| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Chromium |
|---|---|

SECTION 1. TOXIC CHEMICAL IDENTITY (Important DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)<br>7440473 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)<br>Chromium |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive).<br>NA |
| 1.4 | Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.<br>(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.) |

| NA [ ] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | |

SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, spaces, and punctuation.)<br>NA |

SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | 3.2 Process the toxic chemical: | 3.3 Otherwise use the toxic chemical: |
|---|---|---|
| a. [ ] Produce b. [ ] Import | | |
| If produce or import:<br>c. [ ] For on-site use/processing<br>d. [ ] For sale/distribution<br>e. [ ] As a byproduct<br>f. [ ] As an impurity | a. [ ] As a reactant<br>b. [ X ] As a formulation component<br>c. [ ] As an article component<br>d. [ X ] Repackaging<br>e. [ ] As an impurity | a. [ ] As a chemical processing aid<br>b. [ ] As a manufacturing aid<br>c. [ ] Ancillary or other use |

SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

| | |
|---|---|
| 4.1 | [ 05 ] (Enter two-digit code from instruction package.) |

SECTION 5.QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA [ ] | A | E1 | |
| 5.2 | Stack or point air emissions | NA [ ] | A | E1 | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |

*For Dioxin and Dioxin-like Compounds, report in grams/year
**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Chromium |
|---|---|

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I wells | [ X ] | | |
| 5.4.2 | Underground Injection onsite to Class II-V wells | [ X ] | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA subtitle C landfills | [ X ] | | |
| 5.5.1.B | Other landfills | [ X ] | | |
| 5.5.2 | Land treatment/application farming | [ X ] | | |
| 5.5.3A | RCRA Subtitle C surface impoundments | [ X ] | | |
| 5.5.3B | Other surface impoundments | [ X ] | | |
| 5.5.4 | Other disposal | [ X ] | | |

SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

| 6.1.A.1 Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

*For Dioxin and Dioxin-like Compounds, report in grams/year

**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Chromium |
|---|---|

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | |
|---|---|
| 6.2.1 Off-Site EPA Identification Number (RCRA ID No.) | OHD000816629 |
| Off-Site Location Name | CLEAN HARBORS SPRING GROVE RESOURCE RECOVERY |
| Off-Site Address | 4879 SPRING GROVE AVENUE |

| City | CINCINNATI | State | OH | County | Hamilton | Zip | 45232 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

| Is location under control of reporting facility or parent company? | [ ] Yes [ X ] No |
|---|---|

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 1700 | 1. C | 1. M94 |

| | |
|---|---|
| 6.2.2 Off-Site EPA Identification Number (RCRA ID No.) | NJD 980 536 |
| Off-Site Location Name | VEOLIA (FLANDERS NJ) |
| Off-Site Address | 1 EDEN LANE |

| City | FLANDERS | State | NJ | County | Morris | Zip | 07836 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

| Is location under control of reporting facility or parent company? | [ ] Yes [ X ] No |
|---|---|

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 2100 | 1. C | 1. M94 |

SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ X ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | d. Waste Treatment Efficiency Estimate |
|---|---|---|

*For Dioxin and Dioxin-like Compounds, report in grams/year

**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

**EPA FORM R**
**PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)**

TRI Facility ID Number: **11590PRKNL1101P**

Toxic Chemical, Category or Generic Name: **Chromium**

SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

SECTION 7C. ON-SITE RECYCLING PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | NA | 10 | NA | NA |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | 2000 | 3800 | 2000 | 2000 |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | NA | NA | NA | NA |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | NA | | |
| 8.9 | Production ratio or activity index | | 1.05 | | |
| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | | |

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | | | |
| 8.11 | If you wish to submit additional optional information on source reduction, recycling, or pollution control activities, check "Yes." | Yes [ ] | | |

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete. *For Dioxin and Dioxin-like Compounds, report in grams/year

| TRI Facility ID Number |
| --- |
| **11590PRKNL1101P** |
| Toxic Chemical, Category or Generic Name |
| **Chromium** |

| **Additional optional information on source reduction, recycling, or pollution control activities.** |
| --- |

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*(IMPORTANT: Type or print; read instructions before completing form)*

Form Approved OMB Number:2070-0143
Approval Expires:03/31/2011
Page 1 of 5

| EPA | FORM R | TRI Facility ID Number |
|---|---|---|
| United States Environmental Protection Agency | Section 313 of the Emergency Planning and Community Right-to-know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act. | 11590PRKNL1101P |
| | | Toxic Chemical, Category or Generic Name |
| | | Chromium Compounds (except for chromite ore mined in the Transvaal Reg |

| WHERE TO SEND COMPLETED FORMS: | 1. TRI Data Processing Center<br>P.O.Box 1513<br>Lanham, MD 20703-1513<br>*** State Form Only: Do Not Submit to EPA *** | 2. APPROPRIATE STATE OFFICE<br>(See instructions in Appendix F) |
|---|---|---|

| This section only applies if you are revising or withdrawing a previously submitted form, otherwise leave blank: | Revision (enter up to two code(s)) [ ][ ] | Withdrawal (enter up to two code(s)) [ ][ ] |
|---|---|---|

Important: See Instructions to determine when "Not Applicable (NA)" boxes should be checked.

Part I. FACILITY IDENTIFICATION INFORMATION

SECTION 1. REPORTING YEAR : **2007**

SECTION 2. TRADE SECRET INFORMATION

| 2.1 Are you claiming the toxic chemical identified on page 2 trade secret? | 2.2 Is this copy | |
|---|---|---|
| [ ] Yes (Answer question 2.2; Attach substantiation forms)<br>[X] NO (Do not answer 2.2; Go to Section 3) | [ ] Sanitized [ ] Unsanitized (Answer only if "YES" in 2.1) | |

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| **Alfonso Rolli : EHS Engineering Manager** | | |

SECTION 4. FACILITY IDENTIFICATION

| 4.1 | | TRI Facility ID Number | 11590PRKNL1101P |
|---|---|---|---|
| Facility or Establishment Name<br>**SULZER METCO (US) INC.** | | Facility or Establishment Name or Mailing Address(if different from street address)<br>**NA** | |
| Street<br>**1101 PROSPECT AVE** | | Mailing Address | |
| City/County/State/Zip Code<br>**WESTBURY / Nassau / NY / 11590** | | City/State/Zip Code<br>/ / | Country (Non-US) |

| 4.2 | This report contains information for : (Important: check a or b; check c or d if applicable) | a. [X] An Entire facility | b. [ ] Part of a facility | c. [ ] A Federal facility | d. [ ] GOCO |
|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.3 | Technical Contact name | ALFONSO ROLLI | Email Address<br>ALFONSO.ROLLI@SULZER.COM | | Telephone Number (include area code)<br>5163382337 | | |
| 4.4 | Public Contact name | ALFONSO ROLLI | Email Address | | Telephone Number (include area code)<br>5163382337 | | |
| 4.5 | NAICS Code (s) (6 digits) | a. 332117 (Primary) | b. 333298 | c. | d. | e. | f. |

| 4.7 | Dun and Bradstreet Number(s) (9 digits) |
|---|---|
| a. | **152084398** |
| b. | |

SECTION 5. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| 5.1 | Name of Parent Company | NA [ ] | **SULZER US INDUSTRIES HOLDING INC.** |
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | **001826957** |

**EPA FORM R**
**PART II. CHEMICAL - SPECIFIC INFORMATION**

TRI Facility ID Number: **11590PRKNL1101P**

Toxic Chemical, Category or Generic Name: **Chromium Compounds (except for chromite ore mined in the Transvaal Reg**

SECTION 1. TOXIC CHEMICAL IDENTITY (Important DO NOT complete this section if you completed Section 2 below.)

1.1 CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)
**N090**

1.2 Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)
**Chromium Compounds (except for chromite ore mined in the Transvaal Reg**

1.3 Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive).
**NA**

1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| NA [ ] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | |

SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

2.1 Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, spaces, and punctuation.)
**NA**

SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | 3.2 Process the toxic chemical: | 3.3 Otherwise use the toxic chemical: |
|---|---|---|
| a. [ ] Produce b. [ ] Import | | |
| If produce or import:<br>c. [ ] For on-site use/processing<br>d. [ ] For sale/distribution<br>e. [ ] As a byproduct<br>f. [ ] As an impurity | a. [ ] As a reactant<br>b. [ X ] As a formulation component<br>c. [ ] As an article component<br>d. [ X ] Repackaging<br>e. [ ] As an impurity | a. [ ] As a chemical processing aid<br>b. [ ] As a manufacturing aid<br>c. [ ] Ancillary or other use |

SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

4.1 [ **04** ] (Enter two-digit code from instruction package.)

SECTION 5.QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA [ ] | 0 | O | |
| 5.2 | Stack or point air emissions | NA [ ] | A | E1 | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |

*For Dioxin and Dioxin-like Compounds, report in grams/year
**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

**EPA FORM R**
**PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)**

TRI Facility ID Number: **11590PRKNL1101P**

Toxic Chemical, Category or Generic Name: **Chromium Compounds (except for chromite ore mined in the Transvaal Reg**

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I wells | [X] | | |
| 5.4.2 | Underground Injection onsite to Class II-V wells | [X] | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA subtitle C landfills | [X] | | |
| 5.5.1.B | Other landfills | [X] | | |
| 5.5.2 | Land treatment/application farming | [X] | | |
| 5.5.3A | RCRA Subtitle C surface impoundments | [X] | | |
| 5.5.3B | Other surface impoundments | [X] | | |
| 5.5.4 | Other disposal | [X] | | |

SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

| 6.1.A.1 Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| **NA** | |

*For Dioxin and Dioxin-like Compounds, report in grams/year

**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Chromium Compounds (except for chromite ore mined in the Transvaal Reg |
|---|---|

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | |
|---|---|
| 6.2.1 Off-Site EPA Identification Number (RCRA ID No.) | OHD000816629 |
| Off-Site Location Name | CLEAN HARBORS SPRING GROVE RESOURCE RECOVERY |
| Off-Site Address | 4879 SPRING GROVE AVENUE |

| City | CINCINNATI | State | OH | County | Hamilton | Zip | 45232 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

| Is location under control of reporting facility or parent company? | [ ] Yes [ X ] No |
|---|---|

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 200 | 1. C | 1. M94 |

| | |
|---|---|
| 6.2.2 Off-Site EPA Identification Number (RCRA ID No.) | NJD 980 536 |
| Off-Site Location Name | VEOLIA (FLANDERS NJ) |
| Off-Site Address | 1 EDEN LANE |

| City | FLANDERS | State | NJ | County | Morris | Zip | 07836 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

| Is location under control of reporting facility or parent company? | [ ] Yes [ X ] No |
|---|---|

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 3500 | 1. C | 1. M94 |

SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ X ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | d. Waste Treatment Efficiency Estimate |
|---|---|---|

*For Dioxin and Dioxin-like Compounds, report in grams/year

**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Chromium Compounds (except for chromite ore mined in the Transvaal Reg |
|---|---|

SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

SECTION 7C. ON-SITE RECYCLING PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | 1 | 5 | NA | NA |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | 3000 | 3700 | 3000 | 3000 |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | NA | NA | NA | NA |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | NA | | |
| 8.9 | Production ratio or activity index | | 1.05 | | |
| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | | |

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | | | |
| 8.11 | If you wish to submit additional optional information on source reduction, recycling, or pollution control activities, check "Yes." | Yes [ ] | | |

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

*For Dioxin and Dioxin-like Compounds, report in grams/year

| TRI Facility ID Number |
| --- |
| **11590PRKNL1101P** |
| Toxic Chemical, Category or Generic Name |
| **Chromium Compounds (except for chromite ore mined in the Transvaal Reg** |

| **Additional optional information on source reduction, recycling, or pollution control activities.** |
| --- |

## *** State Form Only: Do Not Submit to EPA ***

Form Approved OMB Number:**2070-0143**
*(IMPORTANT: Type or print; read instructions before completing form)* Approval Expires:**03/31/2011** **Page 1 of 5**

| EPA United States Environmental Protection Agency | **FORM R** Section 313 of the Emergency Planning and Community Right-to-know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act. | TRI Facility ID Number **11590PRKNL1101P** / Toxic Chemical, Category or Generic Name **Aluminum (fume or dust)** |
|---|---|---|

| WHERE TO SEND COMPLETED FORMS: | 1. TRI Data Processing Center<br>P.O.Box 1513<br>Lanham, MD 20703-1513<br>***** State Form Only: Do Not Submit to EPA ***** | 2. APPROPRIATE STATE OFFICE<br>(See instructions in Appendix F) |
|---|---|---|

| This section only applies if you are revising or withdrawing a previously submitted form, otherwise leave blank: | Revision (enter up to two code(s)) [ ] [ ] | Withdrawal (enter up to two code(s)) [ ] [ ] |
|---|---|---|

Important: See Instructions to determine when "Not Applicable (NA)" boxes should be checked.

Part I. FACILITY IDENTIFICATION INFORMATION

SECTION 1. REPORTING YEAR : **2007**

SECTION 2. TRADE SECRET INFORMATION

| 2.1 Are you claiming the toxic chemical identified on page 2 trade secret?<br>[ ] Yes (Answer question 2.2; Attach substantiation forms)<br>[ **X** ] NO (Do not answer 2.2; Go to Section 3) | 2.2 Is this copy<br>[ ] Sanitized [ ] Unsanitized<br>(Answer only if "YES" in 2.1) | |
|---|---|---|

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| **Alfonso Rolli : EHS Engineering Manager** | | |

SECTION 4. FACILITY IDENTIFICATION

| 4.1 | | TRI Facility ID Number | **11590PRKNL1101P** |
|---|---|---|---|
| Facility or Establishment Name<br>**SULZER METCO (US) INC.** | | Facility or Establishment Name or Mailing Address(if different from street address)<br>**NA** | |
| Street<br>**1101 PROSPECT AVE** | | Mailing Address | |
| City/County/State/Zip Code<br>**WESTBURY / Nassau / NY / 11590** | | City/State/Zip Code<br>/ / | Country (Non-US) |

| 4.2 | This report contains information for : (Important: check a or b; check c or d if applicable) | a. [ **X** ] An Entire facility | b. [ ] Part of a facility | c. [ ] A Federal facility | d. [ ] GOCO |
|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4.3 | Technical Contact name | **ALFONSO ROLLI** | Email Address<br>**ALFONSO.ROLLI@SULZER.COM** | | | Telephone Number (include area code)<br>**5163382337** | | |
| 4.4 | Public Contact name | **ALFONSO ROLLI** | Email Address | | | Telephone Number (include area code)<br>**5163382337** | | |
| 4.5 | NAICS Code (s) (6 digits) | a. **332117 (Primary)** | b. **333298** | c. | d. | e. | f. | |

| 4.7 | Dun and Bradstreet Number(s) (9 digits) |
|---|---|
| a. | **152084398** |
| b. | |

SECTION 5. PARENT COMPANY INFORMATION

| 5.1 | Name of Parent Company | NA [ ] | **SULZER US INDUSTRIES HOLDING INC.** |
|---|---|---|---|
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | **001826957** |

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete. Printed using TRIMEweb

**EPA FORM R**
**PART II. CHEMICAL - SPECIFIC INFORMATION**

TRI Facility ID Number: **11590PRKNL1101P**

Toxic Chemical, Category or Generic Name: **Aluminum (fume or dust)**

SECTION 1. TOXIC CHEMICAL IDENTITY (Important DO NOT complete this section if you completed Section 2 below.)

1.1 CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)

**7429905**

1.2 Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)

**Aluminum (fume or dust)**

1.3 Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive).

**NA**

1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| NA [ ] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | |

SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

2.1 Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, spaces, and punctuation.)

**NA**

SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | 3.2 Process the toxic chemical: | 3.3 Otherwise use the toxic chemical: |
|---|---|---|
| a. [ ] Produce b. [ ] Import | | |
| If produce or import:<br>c. [ ] For on-site use/processing<br>d. [ ] For sale/distribution<br>e. [ ] As a byproduct<br>f. [ ] As an impurity | a. [ ] As a reactant<br>b. [ **X** ] As a formulation component<br>c. [ ] As an article component<br>d. [ **X** ] Repackaging<br>e. [ ] As an impurity | a. [ ] As a chemical processing aid<br>b. [ ] As a manufacturing aid<br>c. [ ] Ancillary or other use |

SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

4.1 [ **05** ] (Enter two-digit code from instruction package.)

SECTION 5.QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA [ **X** ] | | | |
| 5.2 | Stack or point air emissions | NA [ **X** ] | | | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | **NA** | | | | |

*For Dioxin and Dioxin-like Compounds, report in grams/year
**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Aluminum (fume or dust) |
|---|---|

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I wells | [ X ] | | |
| 5.4.2 | Underground Injection onsite to Class II-V wells | [ X ] | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA subtitle C landfills | [ X ] | | |
| 5.5.1.B | Other landfills | [ X ] | | |
| 5.5.2 | Land treatment/application farming | [ X ] | | |
| 5.5.3A | RCRA Subtitle C surface impoundments | [ X ] | | |
| 5.5.3B | Other surface impoundments | [ X ] | | |
| 5.5.4 | Other disposal | [ X ] | | |

SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

| 6.1.A.1 Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

*For Dioxin and Dioxin-like Compounds, report in grams/year

**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Aluminum (fume or dust) |
|---|---|

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | |
|---|---|
| 6.2.1 Off-Site EPA Identification Number (RCRA ID No.) | NJD 980 536 |
| Off-Site Location Name | VEOLIA (FLANDERS NJ) |
| Off-Site Address | 1 EDEN LANE |

| City | FLANDERS | State | NJ | County | Morris | Zip | 07836 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? [ ] Yes [ X ] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 17100 | 1. C | 1. M94 |

SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ X ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | d. Waste Treatment Efficiency Estimate |
|---|---|---|

*For Dioxin and Dioxin-like Compounds, report in grams/year

**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

**EPA FORM R**
**PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)**

TRI Facility ID Number: **11590PRKNL1101P**

Toxic Chemical, Category or Generic Name: **Aluminum (fume or dust)**

SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

SECTION 7C. ON-SITE RECYCLING PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | NA | NA | NA | NA |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | 5000 | 17100 | 5000 | 5000 |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | NA | NA | NA | NA |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | NA | | |
| 8.9 | Production ratio or activity index | | 1.05 | | |
| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | | |

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | | | |
| 8.11 | If you wish to submit additional optional information on source reduction, recycling, or pollution control activities, check "Yes." | Yes [ ] | | |

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

*For Dioxin and Dioxin-like Compounds, report in grams/year

| TRI Facility ID Number |
| --- |
| **11590PRKNL1101P** |
| Toxic Chemical, Category or Generic Name |
| **Aluminum (fume or dust)** |

| **Additional optional information on source reduction, recycling, or pollution control activities.** |
| --- |

## *** State Form Only: Do Not Submit to EPA ***

(IMPORTANT: Type or print; read instructions before completing form)

Form Approved OMB Number:2070-0143
Approval Expires:03/31/2011 Page 1 of 5

| EPA United States Environmental Protection Agency | FORM R<br>Section 313 of the Emergency Planning and Community Right-to-know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act. | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Nickel |
|---|---|---|

| WHERE TO SEND COMPLETED FORMS: | 1. TRI Data Processing Center<br>P.O.Box 1513<br>Lanham, MD 20703-1513<br>*** State Form Only: Do Not Submit to EPA *** | 2. APPROPRIATE STATE OFFICE<br>(See instructions in Appendix F) |
|---|---|---|

| This section only applies if you are revising or withdrawing a previously submitted form, otherwise leave blank: | Revision (enter up to two code(s))<br>[ ] [ ] | Withdrawal (enter up to two code(s))<br>[ ] [ ] |
|---|---|---|

Important: See Instructions to determine when "Not Applicable (NA)" boxes should be checked.

Part I. FACILITY IDENTIFICATION INFORMATION

SECTION 1. REPORTING YEAR : **2007**

SECTION 2. TRADE SECRET INFORMATION

| 2.1 Are you claiming the toxic chemical identified on page 2 trade secret?<br>[ ] Yes (Answer question 2.2; Attach substantiation forms)<br>[ X ] NO (Do not answer 2.2; Go to Section 3) | 2.2 Is this copy<br>[ ] Sanitized [ ] Unsanitized<br>(Answer only if "YES" in 2.1) | |
|---|---|---|

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| **Alfonso Rolli : EHS Engineering Manager** | | |

SECTION 4. FACILITY IDENTIFICATION

| 4.1 | | TRI Facility ID Number | 11590PRKNL1101P |
|---|---|---|---|
| Facility or Establishment Name<br>**SULZER METCO (US) INC.** | | Facility or Establishment Name or Mailing Address(if different from street address)<br>**NA** | |
| Street<br>**1101 PROSPECT AVE** | | Mailing Address | |
| City/County/State/Zip Code<br>**WESTBURY / Nassau / NY / 11590** | | City/State/Zip Code<br>/ / | Country (Non-US) |

| 4.2 | This report contains information for : (Important: check a or b; check c or d if applicable) | a. [ X ] An Entire facility | b. [ ] Part of a facility | c. [ ] A Federal facility | d. [ ] GOCO |
|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4.3 | Technical Contact name | ALFONSO ROLLI | Email Address<br>ALFONSO.ROLLI@SULZER.COM | | Telephone Number (include area code)<br>5163382337 | | | |
| 4.4 | Public Contact name | ALFONSO ROLLI | Email Address | | Telephone Number (include area code)<br>5163382337 | | | |
| 4.5 | NAICS Code (s) (6 digits) | a. 332117 (Primary) | b. 333298 | c. | d. | e. | f. | |

| 4.7 | Dun and Bradstreet Number(s) (9 digits) |
|---|---|
| a. | **152084398** |
| b. | |

SECTION 5. PARENT COMPANY INFORMATION

| 5.1 | Name of Parent Company | NA [ ] | SULZER US INDUSTRIES HOLDING INC. |
|---|---|---|---|
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | 001826957 |

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**EPA FORM R**
**PART II. CHEMICAL - SPECIFIC INFORMATION**

TRI Facility ID Number: **11590PRKNL1101P**

Toxic Chemical, Category or Generic Name: **Nickel**

SECTION 1. TOXIC CHEMICAL IDENTITY (Important DO NOT complete this section if you completed Section 2 below.)

1.1 CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)

**7440020**

1.2 Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)

**Nickel**

1.3 Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive).

**NA**

1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| NA [ ] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | |

SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

2.1 Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, spaces, and punctuation.)

**NA**

SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | 3.2 Process the toxic chemical: | 3.3 Otherwise use the toxic chemical: |
|---|---|---|
| a. [ ] Produce b. [ ] Import | | |
| If produce or import:<br>c. [ ] For on-site use/processing<br>d. [ ] For sale/distribution<br>e. [ ] As a byproduct<br>f. [ ] As an impurity | a. [ ] As a reactant<br>b. [ X ] As a formulation component<br>c. [ ] As an article component<br>d. [ X ] Repackaging<br>e. [ ] As an impurity | a. [ ] As a chemical processing aid<br>b. [ ] As a manufacturing aid<br>c. [ ] Ancillary or other use |

SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

4.1 [ **05** ] (Enter two-digit code from instruction package.)

SECTION 5.QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA [ X ] | | | |
| 5.2 | Stack or point air emissions | NA [ X ] | | | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | **NA** | | | | |

*For Dioxin and Dioxin-like Compounds, report in grams/year
**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

**EPA FORM R**
**PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)**

TRI Facility ID Number: **11590PRKNL1101P**

Toxic Chemical, Category or Generic Name: **Nickel**

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I wells | [ X ] | | |
| 5.4.2 | Underground Injection onsite to Class II-V wells | [ X ] | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA subtitle C landfills | [ X ] | | |
| 5.5.1.B | Other landfills | [ X ] | | |
| 5.5.2 | Land treatment/application farming | [ X ] | | |
| 5.5.3A | RCRA Subtitle C surface impoundments | [ X ] | | |
| 5.5.3B | Other surface impoundments | [ X ] | | |
| 5.5.4 | Other disposal | [ X ] | | |

SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

| 6.1.A.1 Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

*For Dioxin and Dioxin-like Compounds, report in grams/year
**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Nickel |
|---|---|

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | |
|---|---|
| 6.2.1 Off-Site EPA Identification Number (RCRA ID No.) | NA |
| Off-Site Location Name | PM RECOVERY |
| Off-Site Address | 420 S. CASCADE STREET |

| City | NEW CASTLE | State | PA | County | Lawrence | Zip | 16101 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

Is location under control of reporting facility or parent company? [ ] Yes [ X ] No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 101776 | 1. C | 1. M24 |

SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ X ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | d. Waste Treatment Efficiency Estimate |
|---|---|---|

*For Dioxin and Dioxin-like Compounds, report in grams/year

**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

**EPA FORM R**
**PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)**

| TRI Facility ID Number |
|---|
| **11590PRKNL1101P** |
| Toxic Chemical, Category or Generic Name |
| **Nickel** |

SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

SECTION 7C. ON-SITE RECYCLING PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | NA | NA | NA | NA |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | NA | NA | NA | NA |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | 303110 | 101776 | 300000 | 300000 |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | 0 | | |
| 8.9 | Production ratio or activity index | | 1.3 | | |
| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | | |

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | | | |
| 8.11 | If you wish to submit additional optional information on source reduction, recycling, or pollution control activities, check "Yes." | Yes [ ] | | |

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete. *For Dioxin and Dioxin-like Compounds, report in grams/year

| TRI Facility ID Number |
| --- |
| **11590PRKNL1101P** |
| Toxic Chemical, Category or Generic Name |
| **Nickel** |

| Additional optional information on source reduction, recycling, or pollution control activities. |
| --- |

# *** State Form Only: Do Not Submit to EPA ***

Form Approved OMB Number:2070-0143
Approval Expires:03/31/2011

*(IMPORTANT: Type or print; read instructions before completing form)* Page 1 of 5

| EPA United States Environmental Protection Agency | FORM R<br>Section 313 of the Emergency Planning and Community Right-to-know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act. | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Cobalt |
|---|---|---|

| WHERE TO SEND COMPLETED FORMS: | 1. TRI Data Processing Center<br>P.O.Box 1513<br>Lanham, MD 20703-1513<br>*** State Form Only: Do Not Submit to EPA *** | 2. APPROPRIATE STATE OFFICE<br>(See instructions in Appendix F) |
|---|---|---|

| This section only applies if you are revising or withdrawing a previously submitted form, otherwise leave blank: | Revision (enter up to two code(s))<br>[ ] [ ] | Withdrawal (enter up to two code(s))<br>[ ] [ ] |
|---|---|---|

Important: See Instructions to determine when "Not Applicable (NA)" boxes should be checked.

## Part I. FACILITY IDENTIFICATION INFORMATION

SECTION 1. REPORTING YEAR : **2007**

SECTION 2. TRADE SECRET INFORMATION

| 2.1 Are you claiming the toxic chemical identified on page 2 trade secret?<br>[ ] Yes (Answer question 2.2; Attach substantiation forms)<br>[ X ] NO (Do not answer 2.2; Go to Section 3) | 2.2 Is this copy<br>[ ] Sanitized [ ] Unsanitized<br>(Answer only if "YES" in 2.1) | |
|---|---|---|

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| **Alfonso Rolli : EHS Engineering Manager** | | |

SECTION 4. FACILITY IDENTIFICATION

| 4.1 | | TRI Facility ID Number | 11590PRKNL1101P |
|---|---|---|---|
| Facility or Establishment Name<br>**SULZER METCO (US) INC.** | | Facility or Establishment Name or Mailing Address(if different from street address)<br>**NA** | |
| Street<br>**1101 PROSPECT AVE** | | Mailing Address | |
| City/County/State/Zip Code<br>**WESTBURY / Nassau / NY / 11590** | | City/State/Zip Code<br>/ / | Country (Non-US) |

| 4.2 | This report contains information for : (Important: check a or b; check c or d if applicable) | a. [ X ] An Entire facility | b. [ ] Part of a facility | c. [ ] A Federal facility | d. [ ] GOCO |
|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4.3 | Technical Contact name | ALFONSO ROLLI | | Email Address<br>ALFONSO.ROLLI@SULZER.COM | | Telephone Number (include area code)<br>5163382337 | | |
| 4.4 | Public Contact name | ALFONSO ROLLI | | Email Address | | Telephone Number (include area code)<br>5163382337 | | |
| 4.5 | NAICS Code (s) (6 digits) | a. 332117 (Primary) | b. 333298 | c. | d. | e. | f. | |

| 4.7 | Dun and Bradstreet Number(s) (9 digits) |
|---|---|
| a. | **152084398** |
| b. | |

SECTION 5. PARENT COMPANY INFORMATION

| 5.1 | Name of Parent Company | NA [ ] | SULZER US INDUSTRIES HOLDING INC. |
|---|---|---|---|
| 5.2 | Parent Company's Dun & Bradstreet Number | NA [ ] | 001826957 |

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Cobalt |
|---|---|

SECTION 1. TOXIC CHEMICAL IDENTITY (Important DO NOT complete this section if you completed Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)<br>**7440484** |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)<br>**Cobalt** |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive).<br>**NA** |
| 1.4 | Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.<br>(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.) |

| NA [ ] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | |

SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, spaces, and punctuation.)<br>**NA** |

SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

| 3.1 Manufacture the toxic chemical: | 3.2 Process the toxic chemical: | 3.3 Otherwise use the toxic chemical: |
|---|---|---|
| a. [ ] Produce b. [ ] Import | | |
| If produce or import:<br>c. [ ] For on-site use/processing<br>d. [ ] For sale/distribution<br>e. [ ] As a byproduct<br>f. [ ] As an impurity | a. [ ] As a reactant<br>b. [ X ] As a formulation component<br>c. [ ] As an article component<br>d. [ X ] Repackaging<br>e. [ ] As an impurity | a. [ ] As a chemical processing aid<br>b. [ ] As a manufacturing aid<br>c. [ ] Ancillary or other use |

SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

4.1 [ **04** ] (Enter two-digit code from instruction package.)

SECTION 5.QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA [ ] | **0** | **O** | |
| 5.2 | Stack or point air emissions | NA [ ] | **A** | **E1** | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | **NA** | | | | |

*For Dioxin and Dioxin-like Compounds, report in grams/year
**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

**EPA FORM R**
**PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)**

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category or Generic Name |
| Cobalt |

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground Injection onsite to Class I wells | [X] | | |
| 5.4.2 | Underground Injection onsite to Class II-V wells | [X] | | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1.A | RCRA subtitle C landfills | [X] | | |
| 5.5.1.B | Other landfills | [X] | | |
| 5.5.2 | Land treatment/application farming | [X] | | |
| 5.5.3A | RCRA Subtitle C surface impoundments | [X] | | |
| 5.5.3B | Other surface impoundments | [X] | | |
| 5.5.4 | Other disposal | [X] | | |

SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

| 6.1.A.1 Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

*For Dioxin and Dioxin-like Compounds, report in grams/year
**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Cobalt |
|---|---|

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| | |
|---|---|
| 6.2.1 Off-Site EPA Identification Number (RCRA ID No.) | OHD000816629 |
| Off-Site Location Name | CLEAN HARBORS SPRING GROVE RESOURCE RECOVERY |
| Off-Site Address | 4879 SPRING GROVE AVENUE |

| City | CINCINNATI | State | OH | County | Hamilton | Zip | 45232 | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

| Is location under control of reporting facility or parent company? | [ ] Yes [ X ] No |
|---|---|

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 350 | 1. C | 1. M94 |

SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

[ X ] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | d. Waste Treatment Efficiency Estimate |
|---|---|---|

*For Dioxin and Dioxin-like Compounds, report in grams/year

**Range Codes: A=1-10 pounds; B=11-499 pounds; C=500-999 pounds.

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete.

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>Cobalt |
|---|---|

SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

SECTION 7C. ON-SITE RECYCLING PROCESSES

[ X ] Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | | | | | |
| 8.1a | Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1b | Total other on-site disposal or other releases | 1 | 5 | NA | NA |
| 8.1c | Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills | NA | NA | NA | NA |
| 8.1d | Total other off-site disposal or other releases | 5000 | 350 | 1000 | 1000 |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | NA | NA | NA | NA |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | 0 | | |
| 8.9 | Production ratio or activity index | | 1.05 | | |
| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | | |

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | | | |
| 8.11 | If you wish to submit additional optional information on source reduction, recycling, or pollution control activities, check "Yes." | Yes [ ] | | |

EPA Form 9350-1 (Rev. 01/2008) - Previous editions are obsolete. *For Dioxin and Dioxin-like Compounds, report in grams/year

| TRI Facility ID Number |
| --- |
| **11590PRKNL1101P** |
| Toxic Chemical, Category or Generic Name |
| **Cobalt** |

| **Additional optional information on source reduction, recycling, or pollution control activities.** |
| --- |

**TRI Facility ID Number: 11590PRKNL1101P**
**Toxic Chemical, Category or Generic Name: Aluminum (fume or dust)**

**Submission Status: Available for Editing**
**Validation Status: Not Validated**

## FORM R

## Part I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR : 2007

### SECTION 2. TRADE SECRET INFORMATION

*2.1*
**Are you claiming the toxic chemical identified on page 2 trade secret?:** No

### SECTION 3. CERTIFICATION

**Name of owner/operator or senior management official:**
**Title:**

### SECTION 4. FACILITY IDENTIFICATION

*4.1*
**TRI Facility ID Number:** 11590PRKNL1101P
**Facility or Establishment Name:** SULZER METCO (US) INC.
**Address:** 1101 PROSPECT AVE
**City/State/Zip:** WESTBURY, NY, 11590
**County:** Nassau

**Facility or Establishment Name or Mailing Address:** NA

*4.2*
**This report contains information for:**

- An entire facility

*4.3*
**Technical Contact Name:** ALFONSO ROLLI
**Email Address:** ALFONSO.ROLLI@SULZER.COM
**Telephone Number:** 5163382337

*4.4*
**Public Contact Name:** ALFONSO ROLLI
**Email Address:**
**Telephone Number:** 5163382337

*4.5*
**NAICS Code (s) (6 digits):**

332117 (Primary)

333298

*4.7*
**Dun and Bradstreet Number:** 152084398,

**SECTION 5. PARENT COMPANY INFORMATION**

*5.1*
**Name of Parent Company:** SULZER US INDUSTRIES HOLDING INC.

*5.2*
**Parent Company's Dun & Bradstreet Number:** 001826957

## PART II. TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

**SECTION 1. TOXIC CHEMICAL IDENTITY**

*1.1*
**CAS Number:** 7429905

*1.2*
**Toxic Chemical or Chemical Category Name:** Aluminum (fume or dust)

*1.3*
**Generic Chemical Name:** NA

*1.4*
**Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category:**
NA

**SECTION 2. MIXTURE COMPONENT IDENTITY**

*2.1*
**Generic Chemical Name Provided by Supplier:** NA

**SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY**

*3.1*
**Manufacture the toxic chemical:**

*3.2*
**Process the toxic chemical:**

- As a formulation component
- Repackaging

*3.3*
**Otherwise use the toxic chemical:**

**SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR**

*4.1*
05

## SECTION 5.QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

**5.1 Fugitive or non-point air emissions**
NA

**5.2 Stack or point air emissions**
NA

**5.3 Discharges to receiving streams or water bodies**
NA

**5.4.1 Underground Injection onsite to Class I Wells**
NA

**5.4.2 Underground Injection onsite to Class II-V Wells**
NA

**5.5.1A RCRA Subtitle C landfills**
NA

**5.5.1B Other Landfills**
NA

**5.5.2 Land treatment/application farming**
NA

**5.5.3A RCRA Subtitle C surface impoundments**
NA

**5.5.3B Other surface impoundments**
NA

**5.5.4 Other disposal**
NA

## SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

*6.1*
**DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)**

*6.1.A*
**Total Quantity Transferred to POTWs and Basis of Estimate**

NA

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

*6.2.1*

**Off-Site EPA Identification Number (RCRA ID No.):** NJD 980 536
**Off-Site Location Name:** VEOLIA (FLANDERS NJ)
**Off-Site Address:** 1 EDEN LANE
**City:** FLANDERS
**State:** NJ
**County:** Morris
**Zip:** 07836
**Country (Non-US):**
**Is location under control of reporting facility or parent company?** No

**Total Transfers (pounds/year):** 17100
**Basis of Estimate:** C
**Type of Waste Treatment/Disposal/Recycling/Energy Recovery:** M94

## SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

No on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

No on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

## SECTION 7C. ON-SITE RECYCLING PROCESSES

No on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

*8.1a*

Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills

**Prior Year (pounds/year):** NA
**Current Reporting Year (pounds/year):** NA
**Following Year (pounds/year):** NA
**Second Following Year (pounds/year):** NA

*8.1b*

Total other on-site disposal or other releases

Prior Year (pounds/year): NA
Current Reporting Year (pounds/year): NA
Following Year (pounds/year): NA
Second Following Year (pounds/year): NA

*8.1c*

Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills

Prior Year (pounds/year): NA
Current Reporting Year (pounds/year): NA
Following Year (pounds/year): NA
Second Following Year (pounds/year): NA

*8.1d*

Total other off-site disposal or other releases

Prior Year (pounds/year): 5000
Current Reporting Year (pounds/year): 17100
Following Reporting Year (pounds/year): 5000
SecondFollowing Reporting Year (pounds/year): 5000

*8.2*

Quantity used for energy recovery onsite

Prior Year (pounds/year): NA
Current Reporting Year (pounds/year): NA
Following Year (pounds/year): NA
Second Following Year (pounds/year): NA

*8.3*

Quantity used for energy recovery offsite

Prior Year (pounds/year): NA
Current Reporting Year (pounds/year): NA
Following Year (pounds/year): NA
Second Following Year (pounds/year): NA

*8.4*

Quantity recycled onsite

Prior Year (pounds/year): NA
Current Reporting Year (pounds/year): NA
Following Year (pounds/year): NA
Second Following Year (pounds/year): NA

*8.5*

Quantity recycled offsite

**Prior Year (pounds/year):** NA
**Current Reporting Year (pounds/year):** NA
**Following Year (pounds/year):** NA
**Second Following Year (pounds/year):** NA

*8.6*

Quantity treated onsite

**Prior Year (pounds/year):** NA
**Current Reporting Year (pounds/year):** NA
**Following Year (pounds/year):** NA
**Second Following Year (pounds/year):** NA

*8.7*

Quantity treated offsite:

**Prior Year (pounds/year):** NA
**Current Reporting Year (pounds/year):** NA
**Following Year (pounds/year):** NA
**Second Following Year (pounds/year):** NA

*8.8*

NA

*8.9*

**Production ratio or activity index:** 1.05

*8.10.1*

**Source Reduction Activity Code:** NA
**Methods to Identify Activities:**

*8.11*

**Wish to submit additional optional information on source reduction, recycling, or pollution control activities?:**

**Additional optional information on source reduction, recycling, or pollution control activities:**

**Trend Analysis: Facility Summary Report**
Releases, Disposal, and Other Waste Transfers

SULZER METCO (US) INC. WESTBURY, NY
Reporting Year **2007**

## On-Site and Off-Site Releases, Disposal and Other Waste Transfers (Form R, Part II, Sections 5 & 6)

### Facility Summary
### SULZER METCO (US) INC.; WESTBURY, NY (TRIFID: 11590PRKNL1101P)

| TRI Chemical or Chemical Category | RY2006 Quantity[1,2] | RY2007 Quantity[1,2] | Difference[1,2] | % Change[3,4] |
|---|---|---|---|---|
| Aluminum (fume or dust) | 16,896 | 17,100 | 204 | 1.2% |
| Chromium | 3,822 | 3,822 | 0 | 0% |
| Chromium Compounds (except for chromite ore mined in the Transvaal Reg | 3,701 | 3,701 | 0 | 0% |
| Cobalt | 5,451 | 5,451 | 0 | 0% |
| Copper | 63,915 | 63,915 | 0 | 0% |
| Nickel | 303,120 | 303,120 | 0 | 0% |
| ***TOTAL RELEASES, DISPOSAL, AND OTHER WASTE TRANSFERS*** | ***396,905*** | ***397,109*** | ***204*** | ***0.1%*** |

Notes:

1. All quantities are in units of pounds, except reports for Dioxin and Dioxin-like Compounds, which are in units of grams (g).
2. The numeric basis for a range code is used in the trend analysis. The numeric basis is equal to the midpoint of the range code, unless you have specified a different numeric basis when reviewing Section 8 calculations.
3. ⓧ - No percent change calculation performed because no form exists for the prior year, or the prior year form is a Form A.
4. ⓘ - No percent change calculation performed because the prior year's total quantity is equal to zero.

**SULZER**

**Sulzer Metco (US) Inc.**

1101 Prospect Avenue
Westbury, NY 11590-0201
United States of America

SULZER METCO (US) INC.
JUN 19 2008
EHS DEPARTMENT

File Copy

19 June 2008

Ms. Susanne Wither
NY State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, NY 12233-8010

Dear Ms. Wither:

In accordance with § 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), enclosed please find the completed Sulzer Metco (US) Inc., Form R with Certification Statements for Reporting Year 2007.

Sulzer Metco (US) Inc. is committed to excellence in environment, health and safety (EHS) through continual improvement of our awareness, understanding and performance. Our goal is to protect and promote the environment and the health and safety of our employees, the communities where we reside, customers, suppliers and shareholders.

If further information or assistance is needed regarding the enclosed documents, please do not hesitate to contact me at alfonso.rolli@sulzer.com or call me at 516-338-2337 (office) or 914-393-2564 (cell phone).

Sincerely,

Alfonso Rolli – Manager
Environmental and Safety Engineering

## Submission Details

SULZER METCO (US) INC. WESTBURY, NY
Reporting Year **2007**

In addition to the information on this page, you can print or download other important information related to this submission for your records. After this submission has been certified, return to the Submission Summary page, select this submission, and use the "Recordkeeping" button.

**Submission ID:** d8743fd2-b270-434a-967e-7d02f77a2294

**U.S. EPA Submission Status**

**Submit Status:** **CDX Processing submission request...**

**Submitted by:** Mr. Alfonso A. Rolli alfonso.rolli@sulzer.com on 06/19/2008

**State Submission Status**

**State:** New York

**SDX?:** **No**

**Certifying Official(s) Notified**

**Primary Certifier:** Mr. Alfonso A. Rolli alfonso.rolli@sulzer.com

**Alternate Certifier:** *No Alternate Certifier Identified*

**Facility Information**

**TRIFID:** 11590PRKNL1101P

**Name:** SULZER METCO (US) INC.

**Address:** 1101 PROSPECT AVE
WESTBURY, NY 11590

**Forms Submitted (click on a chemical name to view the form)**

| CAS No. | Chemical Name | Year | Form | Revision? |
|---|---|---|---|---|
| 007440484 | Cobalt | 2007 | Form R | No |
| 007440020 | Nickel | 2007 | Form R | No |
| 007429905 | Aluminum (fume or dust) | 2007 | Form R | No |
| N090 | Chromium Compounds (except for chromite ore mined in the Transvaal Reg | 2007 | Form R | No |
| 007440473 | Chromium | 2007 | Form R | No |
| 007440508 | Copper | 2007 | Form R | No |

R4/2007
ID: AKOL2765
PASSWORD SULZEREHS1

SULZER METCO (US) INC.
JUN 19 2008
EHS DEPARTMENT

## Rolli, Alfonso

**From:** Lopez.Nora@epamail.epa.gov
**Sent:** Tuesday, June 17, 2008 7:50 AM
**To:** Rolli, Alfonso
**Subject:** Re: TRIMe

Your access code is
320148

If you are going to use the TRIMe Web tool you will need to register and the certifier needs to register. Please view the tutorials so that you can get trained. They can be viewed at:
http://www.epa.gov/tri/report/software/index.htm#dataset

any questions please give me a call

Nora Lopez, MPH
USEPA Region 2
Toxic Release Inventory Coordinator
lopez.nora@epa.gov
732-906-6890

-----"Rolli, Alfonso" <Alfonso.Rolli@sulzer.com> wrote: -----

To: Nora Lopez/R2/USEPA/US@EPA
From: "Rolli, Alfonso" <Alfonso.Rolli@sulzer.com>
Date: 06/16/2008 05:39PM
Subject: TRIMe

Dear Ms. Lopez:

Please provide the access code for my facility. Please see company name and address below.

Questions? Please call me at the number(s) below.

Thank you,

SULZER METCO (US) INC.
JUN 19 2008
EHS DEPARTMENT

Alfonso Rolli - Manager

Environmental & Safety Engineering

Sulzer Metco US Inc.

1101 Prospect Avenue

Westbury , NY 11590

p: 516.338.2337

f: 516.338.2303

c: 914.393.2564

e: alfonso.rolli@sulzer.com

**THINK BEFORE YOU PRINT: before printing this e-mail think whether it is really necessary**

CONFIDENTIALITY NOTICE
The information in this email may be confidential and/or privileged. This email is intended to be reviewed by only the addressee(s) named above. If you are not the intended recipient, you are hereby notified that any review, dissemination, copying, use or storage of this email and its attachments, if any, or the information contained herein is prohibited. If you have received this email in error, please immediately notify the sender by return email and delete this email from your system. Thank you.

**From:** TRI Data Processing Center [TRIDPC@CSC.COM]
**Sent:** Friday, March 21, 2008 4:32 PM
**To:** Rolli, Alfonso
**Subject:** TRI-MEweb Invitation

SULZER METCO (US) INC.
MAR 24 2008
EHS DEPARTMENT

ALFONSO ROLLI
SULZER METCO (US) INC.
11590PRKNL1101P
1101 PROSPECT AVE
WESTBURY, NY 11590

Subject: TRI-MEweb Invitation

TRI Reporting Facility,

The United States Environmental Protection Agency and the Toxics Release Inventory (TRI) Program are proud to announce the release of TRI-MEweb to all TRI reporting facilities for Reporting Year 2007 (RY07). This letter provides you with information about this Web-based application and includes a unique facility access key that will allow you to use TRI-MEweb.

You are receiving this letter because you were identified as the technical contact for the facility listed above on its RY2006 TRI Forms. If you are no longer involved with TRI reporting for this facility, please reply to epacdx@csc.com to be removed from the distribution. Any information on the individual currently identified as the technical contact would be appreciated.

This exciting new online application allows you to submit your RY07 TRI forms via the Internet through EPA's Central Data Exchange (CDX). You can also submit or revise RY05 and RY06 TRI forms, if necessary. If you reside in a state participating in the TRI State Data Exchange, using TRI-MEweb for RY07 reporting will eliminate the need to send reports separately to your state official - TRI-MEweb will send them for you! Your TRI-MEweb submission will satisfy both federal and state reporting requirements. Facilities located in a state not participating in the TRI State Data Exchange will be able to print forms to submit to their states. The application will notify you whether or not you are in a state that is participating in the TRI State Data Exchange. To find out if your state is participating in the State Exchange, Visit http://www.exchangenetwork.net/progress/index.htm, select "Data Exchange Status" in the "Select a View" area, and then select "TRI - Toxics Release Inventory" from the list provided.

Advantages of TRI-MEweb

TRI-MEweb has several advantages over the TRI-MEdesktop software, here are just a few:

1. TRI-MEweb is web-based, there is no software to download, and can be accessed anywhere
2. TRI-MEweb calculates Section 8 column B automatically based on entries in sections 5 and 6
3. RY2007 forms will be pre-populated with data from RY2006 in order to save time and data entry
4. Facility and Chemical Quicklists to allow facilities to selectively choose which sections of the form are applicable to them, and
5. You can compare current year data against last year's filings to see if there are large percentage changes in reported values that might indicate a possible data entry error

Requirements to submit using TRI-MEweb for RY07:

1. You must have Internet access
2. The individuals who will use TRI-MEweb to prepare and submit data to CDX ("preparers") and individuals who will use CDX to certify forms submitted by TRI-MEweb ("certifying officials") must have CDX accounts. You may register for an account or access your existing account at http://cdx.epa.gov

a. For assistance with how to register or use TRI-MEweb, visit the on-line tutorials and registration assistance at www.epa.gov/tri/report/software/index.htm

3. To meet the government wide initiative to increase security of electronic reporting, the certifying official must sign an Electronic Signature Agreement (ESA) and mail this to the TRI Data Processing Center (TRIDPC) prior to being able to certify a TRI submission prepared by TRI-MEweb. This process is expected to take up to five business days, so please plan accordingly. The TRI program STRONGLY recommends that a facility get a certifying official registered in TRI-MEweb as soon as they access the application

4. You must have a pre-existing TRI Facility Identification number (TRIFID) to submit using the RY07 version of TRI-MEweb. New facilities cannot use TRI-MEweb

5. Preparers must gain access to their facility's TRI data in TRI-MEweb with the unique facility access code provided in this letter

Your facility Access Key: 320148

This access key is a unique numeric code for the facility identified in this letter. Please keep it in a safe place and do not share it with anyone who you do not want to have access to your facility's data.

Non web-based TRI-ME (TRI-MEdesktop)
The non-web based version of TRI-ME is also available for download at www.epa.gov/tri/report/software/index.htm . Please be aware that a CD containing the TRI-MEdesktop software WILL NOT be mailed out to facilities this year. If you need assistance in getting a copy of the TRI-MEdesktop mailed to you, please send an email to TRIDOCS@epa.gov.

Questions
We look forward to your participation and hope that TRI-MEweb will make your TRI reporting easier and more efficient. If you have questions about registering for CDX or accessing TRI-MEweb, please call the CDX Help Desk at 888-890-1995, M - F 8:00 am to 6:00 pm EST, or email at: epacdx@csc.com.

Sincerely,
/s/
Dipti Singh
U.S. Environmental Protection Agency
Toxics Release Inventory Program

PLEASE SAVE THIS DOCUMENT. IT CONTAINS YOUR FACILITY'S UNIQUE TRI-MEweb ACCESS INFORMATION.

3/21/2008 4:31:46 PM

SULZER METCO (US) INC.
JUN 20 2008
EHS DEPARTMENT

Form R Materials
2007

| | Material Description | Quantity | % Co | Co (lb) | % Ni | Ni (lb) | % Al | Al (lb) | % Cr | Cr (lb) | % CrC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1042885 MATRIX | | 0.0% | 0 | 5.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | 1058249 MATRIX | | 0.0% | 0 | 5.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | 1058251 MATRIX | | 0.0% | 0 | 5.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | 1058252 MATRIX | | 0.0% | 0 | 5.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | 1058266 MATRIX | | 0.0% | 0 | 5.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | 1058271 MATRIX | | 0.0% | 0 | 5.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | 1058272 MATRIX | | 0.0% | 0 | 5.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | 4221 | | 10.0% | 0 | 16.0% | 0 | 0.0% | 0 | 72.0% | 0 | 0.0% |
| | 1058273 MATRIX | | 0.0% | 0 | 5.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | 1824 RZR BRAZE POWDER | | 18.0% | 0 | 60.0% | 0 | 3.0% | 0 | 11.0% | 0 | 0.0% |
| | **34FP/15F BLEND** | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 100 POWDER 5# | | 0.0% | 0 | 70.0% | 0 | 0.1% | 0 | 19.0% | 0 | 0.0% |
| | AMDRY 100C POWDER 5# | | 0.0% | 0 | 70.0% | 0 | 0.1% | 0 | 19.0% | 0 | 0.0% |
| | Amdry 103 powder 5# | | 0.0% | 0 | 70.0% | 0 | 0.1% | 0 | 19.0% | 0 | 0.0% |
| | AMDRY 1371 POWDER 10# | | 25.0% | 0 | 19.0% | 0 | 0.0% | 0 | 3.5% | 0 | 0.0% |
| | AMDRY 1718 POWDER 5# | | 1.0% | 0 | 53.0% | 0 | 0.0% | 0 | 19.0% | 0 | 0.0% |
| 1001074 | AMDRY 187 POWDER | 2,000.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001064 | AMDRY 2000 POWDER 5# | 1,460.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001065 | AMDRY 2010 POWDER 5# | | 0.0% | 0 | 0.0% | 0 | 53.0% | 0 | 0.0% | 0 | 0.0% |
| 1001585 | AMDRY 204NS-1 POWDER 12.5# | 100,950.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001035 | AMDRY 301 POWDER (3010) 5# | 395.00 | 11.0% | 43 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 302 POWDER 5# | | 11.5% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 303 | 190.00 | 0.0% | 0 | 0.0% | 0 | 99.0% | 188 | 0.0% | 0 | 0.0% |
| 1001037 | AMDRY 313X POWDER 5# | 8,910.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001038 | AMDRY 333 POWDER (3330) 5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 345 | | 65.0% | 0 | 0.0% | 0 | 10.0% | 0 | 25.0% | 0 | 0.0% |
| | AMDRY 353 POWDER (3330) 5# | | 46.0% | 0 | 50.0% | 0 | 53.5% | 0 | 0.0% | 0 | 0.0% |
| 1000585 | AMDRY 355 POWDER 5# | 7,980.00 | 0.0% | 0 | 0.0% | 0 | 55.0% | 4,389 | 0.0% | 0 | 0.0% |
| | AMDRY 356 ALUM OXIDE PWA 1356 / 5# | 12,460.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 365-1 | | 24.0% | 0 | 45.0% | 0 | 12.0% | 0 | 17.0% | 0 | 0.0% |
| | AMDRY 365-2 POWDER (3330) 5# | | 24.0% | 0 | 45.0% | 0 | 12.0% | 0 | 17.0% | 0 | 0.0% |
| | AMDRY 367 POWDER / 5# | 3,930.00 | 0.0% | 0 | 10.5% | 413 | 0.0% | 0 | 78.5% | 3,085 | 0.0% |
| | AMDRY 386 POWDER 5# | | 22.0% | 0 | 48.0% | 0 | 13.0% | 0 | 17.0% | 0 | 0.0% |
| | AMDRY 387 POWDER 5# | | 0.0% | 0 | 86.0% | 0 | 6.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 400 POWDER 5# | | 51.0% | 0 | 17.0% | 0 | 0.0% | 0 | 19.0% | 0 | 0.0% |
| | AMDRY 482 POWDER | | 8.0% | 0 | 73.0% | 0 | 2.0% | 0 | 9.0% | 0 | 0.0% |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | AMDRY 485 PWA 1185-1 | | 33.0% | 0 | 40.0% | 0 | 0.0% | 0 | 24.0% | 0 | 0.0% |
| | AMDRY 500C POWDER 5# | | 0.0% | 0 | 36.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 500F POWDER 5# | | 0.0% | 0 | 36.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001067 | AMDRY 5260 POWDER 5# | 3,040.00 | 20.0% | 608 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001068 | AMDRY 5670 POWDER 5# | 2,620.00 | 20.0% | 524 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001069 | AMDRY 5843 POWDER 10# | 21,470.00 | 10.0% | 2,147 | 0.0% | 0 | 0.0% | 0 | 4.0% | 859 | 0.0% |
| | AMDRY 625 POWDER 5# | | 50.0% | 0 | 63.0% | 0 | 0.0% | 0 | 21.5% | 0 | 0.0% |
| | AMDRY 6415 | 1,480.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 10.0% | 148 | 0.0% |
| | AMDRY 6417 POWDER / 10# | | 0.0% | 0 | 0.0% | 0 | 0.2% | 0 | 0.1% | 0 | 0.0% |
| 1001070 | AMDRY 6420 POWDER 10# | 11,700.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000079 | AMDRY 6505 | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 713C | | 1.0% | 0 | 70.0% | 0 | 6.0% | 0 | 16.0% | 0 | 0.0% |
| | AMDRY 718 CLASS B POWDER 5# | | 1.0% | 0 | 53.0% | 0 | 0.0% | 0 | 19.0% | 0 | 0.0% |
| | AMDRY 718 POWDER 5# | | 1.0% | 0 | 53.0% | 0 | 0.0% | 0 | 19.0% | 0 | 0.0% |
| | AMDRY 718B POWDER 5# | | 1.0% | 0 | 53.0% | 0 | 0.0% | 0 | 19.0% | 0 | 0.0% |
| | AMDRY 738 | | 8.5% | 0 | 62.0% | 0 | 3.5% | 0 | 16.0% | 0 | 0.0% |
| | AMDRY 770 POWDER (7701) 5# | | 0.1% | 0 | 80.0% | 0 | 0.0% | 0 | 20.0% | 0 | 0.0% |
| | AMDRY 770 POWDER (7703) | | 0.1% | 0 | 80.0% | 0 | 0.0% | 0 | 20.0% | 0 | 0.0% |
| | AMDRY 770 POWDER 5# | | 0.1% | 0 | 80.0% | 0 | 0.0% | 0 | 20.0% | 0 | 0.0% |
| | AMDRY 770 POWDER/XPT 711 | | 0.0% | 0 | 83.0% | 0 | 0.0% | 0 | 7.0% | 0 | 0.0% |
| | AMDRY 775 POWDER | | 0.1% | 0 | 80.0% | 0 | 0.0% | 0 | 20.0% | 0 | 0.0% |
| | AMDRY 780 POWDER (7801) | | 0.1% | 0 | 92.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 780 POWDER 5# | | 0.1% | 0 | 92.0% | 0 | 0.0% | 0 | 15.0% | 0 | 0.0% |
| | AMDRY 788 | | 39.0% | 0 | 21.0% | 0 | 0.0% | 0 | 22.0% | 0 | 0.0% |
| | Amdry 790.0 powder 5# | | 0.1% | 0 | 92.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 790.1 POWDER 5# | | 0.1% | 0 | 92.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 8670 / PWA 36117-2 / 5# | | 10.0% | 0 | 14.0% | 0 | 5.5% | 0 | 8.0% | 0 | 0.0% |
| | AMDRY 914 / NICOSI (9143) | | 20.0% | 0 | 72.5% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 915 POWDER | | 1.0% | 0 | 75.0% | 0 | 0.0% | 0 | 13.0% | 0 | 0.0% |
| | AMDRY 9150 | | 1.0% | 0 | 75.5% | 0 | 0.0% | 0 | 13.0% | 0 | 0.0% |
| | AMDRY 917F | | 0.0% | 0 | 100.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 920 | | 64.0% | 0 | 0.5% | 0 | 6.0% | 0 | 29.0% | 0 | 0.0% |
| | AMDRY 930 | | 0.0% | 0 | 65.5% | 0 | 0.0% | 0 | 0.1% | 0 | 0.0% |
| | AMDRY 9300B | | 0.0% | 0 | 65.5% | 0 | 0.0% | 0 | 0.1% | 0 | 0.0% |
| | AMDRY 936 | | 0.0% | 0 | 68.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 942-3 POWDER | 430.00 | 0.0% | 0 | 38.0% | 163 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY 949 POWDER | 3,085.00 | 0.0% | 0 | 0.0% | 0 | 55.0% | 1,697 | 0.0% | 0 | 0.0% |

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| | AMDRY 9500 | 300.00 | 0.0% | 0 | 0.0% | 0 | 53.0% | 159 | 0.0% | 0 | 0.0% |
| 1015614 | AMDRY 955 | | 0.5% | 0 | 83.0% | 0 | 0.0% | 0 | 10.0% | 0 | 0.0% |
| 1030090 | AMDRY 951 (Ni-50 Gr) | 480.00 | 0.5% | 2 | 60.0% | 288 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001049 | AMDRY 956 POWDER (9560) 5# | 30,900.00 | 0.0% | 0 | 93.5% | 28,892 | 5.0% | 1,545 | 0.0% | 0 | 0.0% |
| 1001050 | AMDRY 959 POWDER 5# | 2,520.00 | 0.0% | 0 | 38.0% | 958 | 7.0% | 176 | 0.0% | 0 | 0.0% |
| 1001051 | AMDRY 960 POWDER (9600) 5# | 14,550.00 | 0.0% | 0 | 73.0% | 10,622 | 5.0% | 728 | 18.0% | 2,619 | 0.0% |
| | AMDRY 961 | | 0.0% | 0 | 77.0% | 0 | 6.0% | 0 | 17.0% | 0 | 0.0% |
| 1001052 | AMDRY 962 (9624) | | 0.0% | 0 | 67.0% | 0 | 10.0% | 0 | 22.0% | 0 | 0.0% |
| | AMDRY 962 POWDER (9620) 5# | | 0.0% | 0 | 67.0% | 0 | 10.0% | 0 | 22.0% | 0 | 0.0% |
| | AMDRY 962 POWDER (9625) 5# | | 0.0% | 0 | 67.0% | 0 | 10.0% | 0 | 22.0% | 0 | 0.0% |
| | AMDRY 9621 POWDER | | 0.0% | 0 | 77.0% | 0 | 6.0% | 0 | 17.0% | 0 | 0.0% |
| | AMDRY 963 POWDER 5# | | 0.0% | 0 | 68.0% | 0 | 6.0% | 0 | 26.0% | 0 | 0.0% |
| | AMDRY 964 (9640) | | 0.0% | 0 | 57.0% | 0 | 11.0% | 0 | 31.0% | 0 | 0.0% |
| | AMDRY 964 POWDER 5# | | 0.0% | 0 | 57.0% | 0 | 11.0% | 0 | 31.0% | 0 | 0.0% |
| | AMDRY 9830 POWDER 5# | | 17.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001057 | AMDRY 9831 POWDER 5# | 4,830.00 | 17.0% | 821 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001058 | AMDRY 993 POWDER (9930) 50# | 11,800.00 | 0.0% | 0 | 1.0% | 118 | 35.0% | 4,130 | 1.0% | 118 | 0.0% |
| 1030098 | AMDRY 9951 POWDER | 11,442.00 | 35.0% | 4,005 | 30.0% | 3,433 | 8.0% | 915 | 25.0% | 2,861 | 0.0% |
| | AMDRY 9954 POWDER | | 35.0% | 0 | 30.0% | 0 | 8.0% | 0 | 25.0% | 0 | 0.0% |
| | AMDRY 995C POWDER 5# | | 35.0% | 0 | 30.0% | 0 | 8.0% | 0 | 26.0% | 0 | 0.0% |
| | AMDRY 997 POWDER 5# | | 23.0% | 0 | 44.0% | 0 | 8.0% | 0 | 20.0% | 0 | 0.0% |
| | AMDRY AlCo | | 30.0% | 0 | 50.0% | 0 | 69.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY B-93 | | 12.0% | 0 | 55.0% | 0 | 3.0% | 0 | 14.0% | 0 | 0.0% |
| | AMDRY BRB / XPT 612 | | 9.0% | 0 | 70.0% | 0 | 3.5% | 0 | 14.0% | 0 | 0.0% |
| | AMDRY BRB POWDER (-325) | | 9.5% | 0 | 68.5% | 0 | 6.0% | 0 | 13.5% | 0 | 0.0% |
| | AMDRY BRB POWDER 5# | | 9.5% | 0 | 68.5% | 0 | 6.0% | 0 | 13.5% | 0 | 0.0% |
| | AMDRY CHROME POWDER 30# | 1,020.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 99.5% | 1,015 | 0.0% |
| 1001071 | AMDRY CHROME POWDER 5# | 4,570.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 100.0% | 4,570 | 0.0% |
| | AMDRY D-15 POWDER | | 10.0% | 0 | 65.0% | 0 | 3.5% | 0 | 15.0% | 0 | 0.0% |
| | AMDRY DF-3 POWDER | | 20.0% | 0 | 54.0% | 0 | 2.0% | 0 | 20.0% | 0 | 0.0% |
| | AMDRY DF-3 POWDER | | 20.0% | 0 | 54.0% | 0 | 2.0% | 0 | 20.0% | 0 | 0.0% |
| | AMDRY DF-4B | | 10.0% | 0 | 67.0% | 0 | 3.5% | 0 | 14.0% | 0 | 0.0% |
| | AMDRY DF-5 | | 0.0% | 0 | 74.0% | 0 | 2.0% | 0 | 18.0% | 0 | 0.0% |
| | AMDRY DF-6A POWDER | | 0.0% | 0 | 74.0% | 0 | 2.0% | 0 | 18.0% | 0 | 0.0% |
| | AMDRY MM509 POWDER 5# | | 54.0% | 0 | 10.0% | 0 | 0.0% | 0 | 23.0% | 0 | 0.0% |
| | AMDRY RENE 80 / 5 LBS | | 9.5% | 0 | 54.0% | 0 | 3.0% | 0 | 14.0% | 0 | 0.0% |
| | AMDRY S-57B | | 54.0% | 0 | 10.0% | 0 | 0.0% | 0 | 23.5% | 0 | 0.0% |

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| | AMDRY SV 20 POWDER | | 0.0% | 0 | 65.0% | 0 | 5.5% | 0 | 25.0% | 0 | 0.0% |
| | AMDRY TD-55 | | 2.0% | 0 | 41.0% | 0 | 0.0% | 0 | 21.5% | 0 | 0.0% |
| | AMDRY X-40 POWDER | | 54.0% | 0 | 10.0% | 0 | 0.0% | 0 | 23.0% | 0 | 0.0% |
| | AMDRY XPT 395 POWDER 5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | AMDRY XPT 434 BLEND | | 8.0% | 0 | 68.0% | 0 | 4.3% | 0 | 15.0% | 0 | 0.0% |
| | AMDRY XPT 449/SPM 4-2591 | | 24.0% | 0 | 48.0% | 0 | 12.0% | 0 | | 0 | 0.0% |
| | BORON NITRIDE POWDER/0157 | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000782 | DIAMALLOY 1003 POWDER 5# | 2,595.00 | 0.0% | 0 | 12.0% | 311 | 0.0% | 0 | 17.0% | 441 | 0.0% |
| 1000783 | DIAMALLOY 1004 POWDER 5# | 2,915.00 | 0.0% | 0 | 0.0% | 0 | 10.0% | 292 | 0.0% | 0 | 0.0% |
| 1000784 | DIAMALLOY 1005 POWDER 5# | 2,345.00 | 0.5% | 12 | 63.0% | 1,477 | 0.0% | 0 | 21.5% | 504 | 0.0% |
| 1000785 | DIAMALLOY 1006 POWDER 5# | 575.00 | 1.0% | 6 | 53.0% | 305 | 0.0% | 0 | 19.0% | 109 | 0.0% |
| 1000786 | DIAMALLOY 1007 POWDER 5# | 6,225.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000802 | DIAMALLOY 1008 POWDER 5# | 1,270.00 | 0.0% | 0 | 4.0% | 51 | 0.0% | 0 | 18.0% | 229 | 0.0% |
| | DIAMALLOY 131PAB / 10# | | 0.0% | 0 | 20.0% | 0 | 0.0% | 0 | 67.0% | 0 | 0.0% |
| 1000787 | DIAMALLOY 2001 POWDER 5# | 12,225.00 | 1.0% | 122 | 70.0% | 8,558 | 0.0% | 0 | 17.0% | 2,078 | 0.0% |
| 1000788 | DIAMALLOY 2002 POWDER 5# | 3,795.00 | 6.0% | 228 | 36.0% | 1,366 | 0.0% | 0 | 8.5% | 323 | 0.0% |
| 1000789 | DIAMALLOY 2003 POWDER 5# | 1,085.00 | 11.5% | 125 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000790 | DIAMALLOY 2004 POWDER 5# | 15,040.00 | 12.0% | 1,805 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000807 | DIAMALLOY 2005NS POWDER 5# | 27,395.00 | 17.0% | 4,657 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DIAMALLOY 2006 POWDER 5# | | 17.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000792 | DIAMALLOY 3001 POWDER 5# | 1,985.00 | 49.0% | 973 | 1.0% | 20 | 0.0% | 0 | 17.5% | 347 | 0.0% |
| 1000806 | DIAMALLOY 3002NS POWDER 5# | | 59.5% | 0 | 1.0% | 0 | 0.0% | 0 | 8.5% | 0 | 0.0% |
| 1000442 | DIAMALLOY 3002-1 | | 59.5% | 0 | 1.0% | 0 | 0.0% | 0 | 8.5% | 0 | 0.0% |
| 1000793 | DIAMALLOY 3004 POWDER 5# | 2,960.00 | 0.0% | 0 | 20.0% | 592 | 0.0% | 0 | 0.0% | 0 | 80.0% |
| 1000794 | DIAMALLOY 3005 POWDER 5# | 200.00 | 0.0% | 0 | 10.0% | 20 | 0.0% | 0 | 0.0% | 0 | 90.0% |
| | DIAMALLOY 3006 POWDER 5# | | 0.0% | 0 | 40.0% | 0 | 0.0% | 0 | 52.0% | 0 | 0.0% |
| | DIAMALLOY 3007 - 12.5# | | 0.0% | 0 | 16.0% | 0 | 0.0% | 0 | 73.0% | 0 | 0.0% |
| 1000796 | DIAMALLOY 3007 POWDER 5# | 17,410.00 | 0.0% | 0 | 10.0% | 1,741 | 0.0% | 0 | 0.0% | 0 | 90.0% |
| 1000797 | DIAMALLOY 4006 POWDER 5# | 1,215.00 | 0.0% | 0 | 55.0% | 668 | 0.0% | 0 | 20.5% | 249 | 0.0% |
| 1000801 | DIAMALLOY 4008NS POWDER 5# | 6,250.00 | 0.0% | 0 | 95.5% | 5,969 | 4.5% | 281 | 0.0% | 0 | 0.0% |
| 1000805 | DIAMALLOY 4010 POWDER 5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DIAMALLOY 4454 | | 35.0% | 0 | 30.0% | 0 | 8.0% | 0 | 25.0% | 0 | 0.0% |
| | DIAMALLOY 4700 POWDER 10# | | 38.0% | 0 | 32.0% | 0 | 8.0% | 0 | 21.0% | 0 | 0.0% |
| | DIAMALLOY 5815 PWDR 5# | | 12.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DIAMALLOY 5826 PWDR 5# | | 17.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DIAMALLOY 5847-1 5# | | 10.0% | 0 | 0.0% | 0 | 0.0% | 0 | 4.0% | 0 | 0.0% |
| | DIAMALLOY 5848 PWDR 5# | | 10.0% | 0 | 0.0% | 0 | 0.0% | 0 | 4.0% | 0 | 0.0% |

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| | DIAMALLOY 5849 POWDER 5# | 590.00 | 10.0% | 59 | 0.0% | 0 | 0.0% | 0 | 4.0% | 24 | 0.0% |
| | DIAMALLOY 5872 NS 5# POWDER | | 12.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DIAMALLOY W914 - 10lb | 18,760.00 | 0.0% | 0 | 20.0% | 3,752 | 0.0% | 0 | 67.0% | 12,569 | 0.0% |
| | DU2221 | 9,566.00 | 1.0% | 96 | 74.0% | 7,079 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DU2222 | 25,298.00 | 1.0% | 253 | 75.0% | 18,974 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DU2223 | 11,243.00 | 1.0% | 112 | 75.0% | 8,432 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DU2231 | 661.00 | 1.0% | 7 | 80.0% | 529 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DU2241 | 11,023.00 | 1.0% | 110 | 85.0% | 9,370 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DU2242 | 7,207.00 | 1.0% | 72 | 85.0% | 6,126 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DU2244 | 2,425.00 | 0.0% | 0 | 85.0% | 2,061 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | DU2311PB | 7,826.00 | 0.0% | 0 | 68.0% | 5,322 | 4.0% | 313 | 4.0% | 313 | 0.0% |
| | DU2313 | 44,313.00 | 0.0% | 0 | 68.0% | 30,133 | 4.0% | 1,773 | 4.0% | 1,773 | 0.0% |
| | FVA-5-B/XPT 271/SPM4-2623 | | | | | | | | | | |
| | GT-50 GE Proprietary Material | 2,135.00 | 25.0% | 534 | 18.3% | 390 | 0.0% | 0 | 3.5% | 75 | 0.0% |
| 1029026 | GT54 | | 26.0% | 0 | 25.0% | 0 | 6.0% | 0 | 16.5% | 0 | 0.0% |
| | GT56 | 7,827.00 | 0.0% | 0 | 65.0% | 5,088 | 3.5% | 274 | 14.0% | 1,096 | 0.0% |
| | METCO 101B-NS POWDER 12.5# | 35,337.00 | 0.0% | 0 | 80.0% | 28,270 | 4.0% | 1,413 | 0.0% | 0 | 0.0% |
| 1000087 | METCO 101NS POWDER 5# | 25,440.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000062 | METCO 101SF POWDER 5# | 3,685.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000329 | METCO 102 POWDER 12.5# | 29,412.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000328 | METCO 102 POWDER 5# | 3,830.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000079 | METCO 105NS POWDER 12.5# | 1,437.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000603 | METCO 105NS POWDER 5# | 19,100.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000063 | METCO 105SFP POWDER 5# | 19,545.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000441 | METCO 106 POWDER 5# | 3,655.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000306 | METCO 106F POWDER 5# | 4,615.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO1101 | 12,161.00 | 0.0% | 0 | 82.0% | 9,972 | 18.0% | 2,189 | 0.0% | 0 | 0.0% |
| | METCO 1102 | 459.00 | 0.0% | 0 | 82.0% | 376 | 18.0% | 83 | 0.0% | 0 | 0.0% |
| 1000307 | METCO 111 POWDER 5# | 680.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000080 | METCO 1123 POWDER 5# | 500.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000572 | METCO 12C POWDER | | 9.0% | 0 | 18.0% | 0 | 0.0% | 0 | 4.0% | 0 | 0.0% |
| 1015393 | METCO 130 POWDER 12.5# | 1,000.00 | 0.5% | 5 | 83.0% | 830 | 0.0% | 0 | 10.0% | 100 | 0.0% |
| 1000126 | METCO 130 POWDER 5# | 7,575.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000125 | METCO 130SF POWDER 5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO 131VF POWDER 5# | 2,070.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000241 | METCO 136CP / 5 LBS | 2,465.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1004631 | METCO 136F POWDER 12.5# | 1,750.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |

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| 1000417 | METCO 136F POWDER 5# | 6,010.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000369 | METCO 143 POWDER 5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001058 | METCO 15E (US) POWDER 5# -106+45µ / 5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1020646 | METCO 15E POWDER / 25# | | 1.0% | 0 | 70.5% | 0 | 0.0% | 0 | 17.0% | 0 | 0.0% |
| | METCO 15F PWDR 5# | 255.00 | 1.0% | 3 | 70.5% | 180 | 0.0% | 0 | 17.0% | 43 | 0.0% |
| 1030519 | METCO 16C POWDER 5# | 100.00 | 1.0% | 1 | 70.5% | 71 | 0.0% | 0 | 17.0% | 17 | 0.0% |
| 1000023 | METCO 18C POWDER 5# | 1,005.00 | 0.5% | 5 | 69.0% | 693 | 0.0% | 0 | 16.0% | 161 | 0.0% |
| 1000053 | METCO 19E POWDER 5# | | 40.0% | 0 | 27.0% | 0 | 0.0% | 0 | 18.0% | 0 | 0.0% |
| 1001067 | METCO 201B-NS POWDER 12.5# | | 0.0% | 0 | 64.0% | 0 | 0.0% | 0 | 16.0% | 0 | 0.0% |
| 1000064 | METCO 201B-NS POWDER 5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001069 | METCO 201NS POWDER 12.5# | 4,075.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000055 | METCO 202NS POWDER 12.5# | 25,325.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000587 | METCO 202NS POWDER 5# | 22,640.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000354 | METCO 203NS POWDER 12.5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO 204BNS POWDER 12.5# | 2,960.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO 204B-NS POWDER 5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000590 | METCO 204C-NS POWDER 12.5# | 1,595.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001593 | METCO 204F 12.5# | 615.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO 204AF 12.5# | 4,775.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO 204NS POWDER 12.5# | 1,474.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000591 | METCO 204NS POWDER 5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000577 | METCO 204NS-AP POWDER 12.5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001425 | METCO 204NS-G POWDER 12.5# | 3,818.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1031343 | METCO 205NS POWDER 12.5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000599 | METCO 210 POWDER 5# | 2,945.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000077 | METCO 210NS-1 POWDER 12.5# | 2,136.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000578 | METCO 210NS-1 POWDER 5# | 9,260.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000575 | METCO 210NS-1G POWDER 12.5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO 2602 | 23,407.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000600 | METCO 301C-NS POWDER 5# | 3,335.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000325 | METCO 301NS POWDER 5# | 10,680.00 | 0.0% | 0 | 65.0% | 6,942 | 3.5% | 374 | 14.0% | 1,495 | 0.0% |
| 1001592 | METCO 303NS-1 POWDER 5# | 200.00 | 0.0% | 0 | 65.0% | 130 | 3.5% | 7 | 14.0% | 28 | 0.0% |
| 1000583 | METCO 307NS POWDER 5# | 24,890.00 | 0.0% | 0 | 27.0% | 6,720 | 0.0% | 0 | 7.0% | 1,742 | 0.0% |
| 1000299 | METCO 307NS-2 POWDER 5# | 9,725.00 | 0.5% | 49 | 74.5% | 7,245 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000370 | METCO 307NS-3 POWDER 5# | 9,425.00 | 0.5% | 47 | 74.5% | 7,022 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000356 | METCO 308NS POWDER 25# | 7,075.00 | 0.5% | 35 | 74.5% | 5,271 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000302 | METCO 308NS-1 POWDER 5# | 2,690.00 | 5.0% | 135 | 84.5% | 2,273 | 0.0% | 0 | 0.0% | 0 | 0.0% |

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| 1000448 | METCO 308NS1 PWDR 25# | | 0.5% | 0 | 84.5% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO 308NS-3 POWDER 5# | 10,845.00 | 0.5% | 54 | 84.5% | 9,164 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000357 | METCO 309NS-3 POWDER 5# | 645.00 | 0.5% | 3 | 84.5% | 545 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000444 | METCO 310NS POWDER 5# | | 0.5% | 0 | 79.5% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001763 | METCO 311NS POWDER 5# | 5.00 | 0.0% | 0 | 0.0% | 0 | 61.0% | 3 | 0.0% | 0 | 0.0% |
| | METCO 312NS POWDER 12.5# | 7,762.00 | 0.0% | 0 | 0.0% | 0 | 55.0% | 4,269 | 0.0% | 0 | 0.0% |
| 1000447 | METCO 312NS PWDR 10# | | 0.0% | 0 | 71.0% | 0 | 4.0% | 0 | 4.0% | 0 | 0.0% |
| | METCO 313NS POWDER 5# | 5.00 | 0.0% | 0 | 71.0% | 4 | 4.0% | 0 | 4.0% | 0 | 0.0% |
| 1002099 | METCO 314NS POWDER 12.5# | 43,975.00 | 0.0% | 0 | 0.0% | 0 | 40.0% | 17,590 | 0.0% | 0 | 0.0% |
| 1000592 | METCO 31C-NS POWDER 5# | 40,745.00 | 0.0% | 0 | 71.0% | 28,929 | 4.0% | 1,630 | 4.0% | 1,630 | 0.0% |
| 1000443 | METCO 320NS POWDER 5# | 27,290.00 | 4.0% | 1,092 | 55.0% | 15,010 | 0.0% | 0 | 4.5% | 1,228 | 0.0% |
| 1001587 | METCO 32C POWDER 5# | 6,400.00 | 0.0% | 0 | 0.0% | 0 | 62.0% | 3,968 | 0.0% | 0 | 0.0% |
| 1000050 | METCO 34F POWDER 5# | 10,190.00 | 10.0% | 1,019 | 14.0% | 1,427 | 0.0% | 0 | 3.5% | 357 | 0.0% |
| 1000086 | METCO 34FP POWDER 5# | 1,470.00 | 6.0% | 88 | 36.0% | 529 | 0.0% | 0 | 8.5% | 125 | 0.0% |
| 1000057 | METCO 350NS POWDER 25# | 59,181.00 | 6.0% | 3,551 | 36.0% | 21,305 | 0.0% | 0 | 8.5% | 5,030 | 0.0% |
| 1000589 | METCO 36C POWDER 5# | 19,040.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000305 | METCO 404NS POWDER 25# | 9,845.00 | 0.0% | 0 | 45.0% | 4,430 | 0.0% | 0 | 12.0% | 1,181 | 0.0% |
| 1015614 | METCO 404NS POWDER 5# | | 0.5% | 0 | 83.0% | 0 | 0.0% | 0 | 10.0% | 0 | 0.0% |
| 1000060 | METCO 410NS POWDER 5# | 5,125.00 | 0.0% | 0 | 80.0% | 4,100 | 20.0% | 1,025 | 0.0% | 0 | 0.0% |
| 1000303 | METCO 412NS | | 0.0% | 0 | 6.0% | 0 | 24.0% | 0 | 0.0% | 0 | 0.0% |
| 1002402 | METCO 41C POWDER 5# | 4,065.00 | 0.0% | 0 | 28.0% | 1,138 | 17.0% | 691 | 0.0% | 0 | 0.0% |
| 1000024 | METCO 41C PWDR 50# PAILS | 10,400.00 | 0.0% | 0 | 12.0% | 1,248 | 0.0% | 0 | 17.0% | 1,768 | 0.0% |
| 1002433 | METCO 421NS-2 | | 0.0% | 0 | 12.0% | 0 | 0.0% | 0 | 17.0% | 0 | 0.0% |
| 1004631 | METCO 42C POWDER 5# | 13,275.00 | 0.0% | 0 | 33.0% | 4,381 | 2.0% | 266 | 0.0% | 0 | 0.0% |
| 1000025 | METCO 42C PWDR 20# | 5,500.00 | 0.0% | 0 | 2.0% | 110 | 0.0% | 0 | 16.0% | 880 | 0.0% |
| 1005578 | METCO 42C PWDR 50# PAILS | 10,700.00 | 0.0% | 0 | 2.0% | 214 | 0.0% | 0 | 16.0% | 1,712 | 0.0% |
| 1006131 | METCO 430NS POWDER 5# | 2,845.00 | 0.0% | 0 | 2.0% | 57 | 0.0% | 0 | 16.0% | 455 | 0.0% |
| 1000069 | METCO 439NS POWDER 5# | 1,115.00 | 12.5% | 139 | 27.0% | 301 | 2.0% | 22 | 0.0% | 0 | 55.0% |
| 1000061 | METCO 439NS-2 POWDER 5# | 3,965.00 | 12.5% | 496 | 27.0% | 1,071 | 2.0% | 79 | 48.0% | 1,903 | 0.0% |
| 1000128 | METCO 43C-NS POWDER 5# | 10,450.00 | 12.5% | 1,306 | 27.0% | 2,822 | 2.0% | 209 | 48.0% | 5,016 | 0.0% |
| | METCO 43F-NS POWDER 5# | 9,995.00 | 0.0% | 0 | 78.0% | 7,796 | 0.0% | 0 | 19.0% | 1,899 | 0.0% |
| 1000068 | METCO 43VF-NS POWDER 5# | 2,990.00 | 0.0% | 0 | 78.0% | 2,332 | 0.0% | 0 | 19.0% | 568 | 0.0% |
| 1000438 | METCO 44 POWDER 5# | 285.00 | 0.0% | 0 | 78.0% | 222 | 0.0% | 0 | 19.0% | 54 | 0.0% |
| 1000066 | METCO 441NS-1 POWDER 5# | 305.00 | 0.0% | 0 | 74.0% | 226 | 0.0% | 0 | 16.0% | 49 | 0.0% |
| 1000604 | METCO 442 POWDER 5# | 3,855.00 | 0.0% | 0 | 26.0% | 1,002 | 2.0% | 77 | 6.0% | 231 | 0.0% |
| 1000445 | METCO 443NS POWDER 25# | 2,000.00 | 0.0% | 0 | 68.0% | 1,360 | 7.0% | 140 | 8.5% | 170 | 0.0% |
| 1000596 | METCO 443NS POWDER 5# | 57,065.00 | 0.0% | 0 | 73.0% | 41,657 | 5.0% | 2,853 | 18.0% | 10,272 | 0.0% |

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| 1000300 | METCO 443NS SPECIAL / XPT 585 / 5# | 9,842.00 | 0.0% | 0 | 73.0% | 7,185 | 5.0% | 492 | 18.0% | 1,772 | 0.0% |
| 1002402 | METCO 444 POWDER 5# | 16,825.00 | 0.0% | 0 | 70.0% | 11,778 | 5.0% | 841 | 18.5% | 3,113 | 0.0% |
| 1000326 | METCO 445 POWDER 5# | 4,460.00 | 0.0% | 0 | 72.0% | 3,211 | 7.0% | 312 | 9.0% | 401 | 0.0% |
| 1000437 | METCO 447NS POWDER 5# | 30,135.00 | 0.0% | 0 | 0.0% | 0 | 10.0% | 3,014 | 0.0% | 0 | 0.0% |
| 1000397 | METCO 449P POWDER 5# | | 0.0% | 0 | 86.0% | 0 | 6.0% | 0 | 0.0% | 0 | 0.0% |
| 1000597 | METCO 450NS POWDER 25# | 35,599.00 | 0.0% | 0 | 0.0% | 0 | 3.0% | 1,068 | 0.0% | 0 | 0.0% |
| | METCO 450NS POWDER 5# | 195,545.00 | 0.0% | 0 | 94.0% | 183,812 | 5.0% | 9,777 | 0.0% | 0 | 0.0% |
| 1000089 | METCO 450P POWDER 5# | 710.00 | 0.0% | 0 | 94.0% | 667 | 5.0% | 36 | 0.0% | 0 | 0.0% |
| 1000439 | METCO 451 POWDER 5# | 1,110.00 | 0.0% | 0 | 94.0% | 1,043 | 4.0% | 44 | 0.0% | 0 | 0.0% |
| 1000078 | METCO 452 POWDER 5# | 15,105.00 | 0.0% | 0 | 81.0% | 12,235 | 1.0% | 151 | 9.0% | 1,359 | 0.0% |
| 1000584 | METCO 453 POWDER 5# | 13,135.00 | 0.0% | 0 | 38.0% | 4,991 | 7.0% | 919 | 0.0% | 0 | 0.0% |
| 1000594 | METCO 45C-NS POWDER 5# | 12,390.00 | 55.0% | 6,815 | 31.0% | 3,841 | 6.0% | 743 | 0.0% | 0 | 0.0% |
| 1000081 | METCO 45VF-NS POWDER 5# | 9,345.00 | 55.0% | 5,140 | 10.0% | 935 | 0.0% | 0 | 24.0% | 2,243 | 0.0% |
| 1000083 | METCO 461NS POWDER 5# | 2,455.00 | 55.0% | 1,350 | 10.0% | 246 | 0.0% | 0 | 24.0% | 589 | 0.0% |
| 1000601 | METCO 480NS POWDER 5# | 27,465.00 | 2.5% | 687 | 67.0% | 18,402 | 5.5% | 1,511 | 17.5% | 4,806 | 0.0% |
| 1000576 | METCO 51F-NS POWDER 25# | | 0.0% | 0 | 95.5% | 0 | 4.5% | 0 | 0.0% | 0 | 0.0% |
| 1000243 | METCO 51F-NS POWDER 5# | 26,145.00 | 0.0% | 0 | 0.0% | 0 | 10.0% | 2,615 | 0.0% | 0 | 0.0% |
| 1000129 | METCO 51NS POWDER 5# | 16,505.00 | 0.0% | 0 | 0.0% | 0 | 10.0% | 1,651 | 0.0% | 0 | 0.0% |
| 1000330 | METCO 52C-NS POWDER 5# | 22,335.00 | 0.0% | 0 | 0.0% | 0 | 10.0% | 2,234 | 0.0% | 0 | 0.0% |
| 1000239 | METCO 54NS POWDER 5# | 10,265.00 | 0.0% | 0 | 0.0% | 0 | 88.0% | 9,033 | 0.0% | 0 | 0.0% |
| 1000422 | METCO 54NS-1 PWDR 10# | 20.00 | 0.0% | 0 | 0.0% | 0 | 99.0% | 20 | 0.0% | 0 | 0.0% |
| 1031593 | METCO 54NS-1 POWDER 5# | 12,600.00 | 0.0% | 0 | 0.0% | 0 | 99.0% | 12,474 | 0.0% | 0 | 0.0% |
| 1000435 | METCO 55 POWDER 5# | 2,975.00 | 0.0% | 0 | 0.0% | 0 | 99.0% | 2,945 | 0.0% | 0 | 0.0% |
| 1000056 | METCO 56C-NS POWDER 5# | 1,535.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000364 | METCO 56F-NS POWDER 5# | 4,920.00 | 0.0% | 0 | 99.5% | 4,895 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000067 | METCO 57NS POWDER | | 0.0% | 0 | 99.5% | 0 | 0.0% | 0 | 16.0% | 0 | 0.0% |
| | METCO 57NS POWDER 5# | 5.00 | 0.0% | 0 | 38.0% | 2 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1029976 | METCO 58NS POWDER | | 0.0% | 0 | 38.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO 58NS POWDER 5# | | 0.0% | 0 | 36.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO 600NS POWDER 5# | 1,235.00 | 0.0% | 0 | 38.0% | 469 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000571 | METCO 600NS-1 PWDR 5# | 3,870.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1030090 | METCO 601NS POWDER 5# | 149,625.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000298 | METCO 605NS POWDER 5# | 2,545.00 | 0.0% | 0 | 0.0% | 0 | 53.0% | 1,349 | 0.0% | 0 | 0.0% |
| 1000331 | METCO 610NS POWDER 12.5# | 1,162.00 | 0.0% | 0 | 0.0% | 0 | 9.0% | 105 | 0.0% | 0 | 0.0% |
| 1000586 | METCO 63NS POWDER 5# | 6,685.00 | 0.0% | 0 | 0.0% | 0 | 7.5% | 501 | 0.0% | 0 | 0.0% |
| 1000058 | METCO 64 POWDER 5# | 490.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000352 | METCO 66F-NS POWDER 5# | 3,670.00 | 59.0% | 2,165 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |

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| 1000442 | METCO 68F-NS-1 POWDER 5# | 7,830.00 | 59.5% | 4,659 | 1.0% | 78 | 0.0% | 0 | 8.5% | 666 | 0.0% |
| 1000568 | METCO 700 POWDER 5# | 1,210.00 | 49.0% | 593 | 1.0% | 12 | 0.0% | 0 | 17.5% | 212 | 0.0% |
| 1000593 | METCO 70C-NS POWDER 12.5# | 1,812.00 | 0.0% | 0 | 55.0% | 997 | 0.0% | 0 | 20.0% | 362 | 0.0% |
| 1000588 | METCO 70F-NS POWDER 10# | 160.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 100.0% | 160 | 0.0% |
| 1001592 | METCO 71NS POWDER 5# | 4,600.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 100.0% |
| 1000075 | METCO 71VF-NS POWDER 5# | 10,540.00 | 11.5% | 1,212 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000084 | METCO 71VF-NS-1 POWDER 5# | 8,980.00 | 11.5% | 1,033 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000434 | METCO 71VFNS-5 POWDER | 5,385.00 | 11.5% | 619 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO 72F-NS POWDER 5# | 15,600.00 | 11.5% | 1,794 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | METCO 73SF POWDER | 1,352.00 | 11.5% | 155 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000088 | METCO 73F POWDER | | 12.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1031953 | METCO 73F-NS-1 POWDER 5# | 25,296.00 | 17.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000304 | METCO 73F-NS-2 POWDER 5# | 15,412.00 | 17.0% | 2,620 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000449 | METCO 73SF-NS POWDER 5# | 1,310.00 | 17.0% | 223 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000308 | METCO 76F-NS POWDER 5# | 3,850.00 | 17.0% | 655 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000799 | METCO 81NS POWDER 5# | 11,060.00 | 21.0% | 2,323 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1000065 | METCO 81VF-NS POWDER 5# | 57,580.00 | 0.0% | 0 | 20.0% | 11,516 | 0.0% | 0 | 4.0% | 2,303 | 76.0% |
| 1000065 | METCO 81VF-NS-1 POWDER 5# | 1,540.00 | 0.0% | 0 | 20.0% | 308 | 0.0% | 0 | 4.0% | 62 | 76.0% |
| 1000085 | METCO 82VF-NS POWDER 5# | 875.00 | 0.0% | 0 | 20.0% | 175 | 0.0% | 0 | 0.0% | 0 | 76.0% |
| 1000573 | RAW MATERIAL FOR XPT 395 / XPT 394 | | 0.0% | 0 | 12.0% | 0 | 0.0% | 0 | 0.0% | 0 | 88.0% |
| | SP 86/70NS POWDER NIC ALUM 5# | 1,085.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1002375 | SP8847 Metco 604NS 5# | 575.00 | 0.1% | 0 | 84.0% | 483 | 16.0% | 92 | 0.0% | 0 | 0.0% |
| 1006131 | SPEC METCO 52C (DJ CUT) 5# | 245.00 | 0.0% | 0 | 0.0% | 0 | 9.0% | 22 | 0.0% | 0 | 0.0% |
| 1029066 | SPECIAL SIZE METCO 307NS / 5# | | 0.0% | 0 | 0.0% | 0 | 87.0% | 0 | 0.0% | 0 | 0.0% |
| | SPM 2-2590 POWDER | | 0.5% | 0 | 74.5% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | SPM 2-2644 (312NS-1) | | 0.0% | 0 | 85.0% | 0 | 15.0% | 0 | 0.0% | 0 | 0.0% |
| | SPM 4-2231 POWDER 10# | | 0.0% | 0 | 71.0% | 0 | 4.0% | 0 | 4.0% | 0 | 0.0% |
| 1002379 | SPM 4-2443 POWDER 51F-NS-1 5 LBS | 1,380.00 | 2.5% | 35 | 67.0% | 925 | 5.5% | 76 | 17.5% | 242 | 0.0% |
| 1006319 | SPM 4-2507 | 23,020.00 | 0.0% | 0 | 0.0% | 0 | 10.0% | 2,302 | 0.0% | 0 | 0.0% |
| | SPM 5-2599 | | 0.0% | 0 | 0.0% | 0 | 6.0% | 0 | 0.0% | 0 | 0.0% |
| | SPM 6-2255 POWDER 5# | 1,575.00 | 11.5% | 181 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1002383 | SPM 6-2309 AE7443 SPINEL POWDER 12.5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1002384 | SPM 6-2710 | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | SPM2000 POWDER 12.5# | 20,162.00 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1019245 | SPM2-2638 / GT56 (B50A978) #5 | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | SPM4-2506 Ti 6Al 4Vanadium Metal Powder | | 0.0% | 0 | 63.0% | 0 | 3.5% | 0 | 13.5% | 0 | 0.0% |
| | SPM5-2219 (AE7609) 18.7# | | 0.0% | 0 | 0.0% | 0 | 6.0% | 0 | 0.0% | 0 | 0.0% |

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| | SPM5-2657 POWDER 5# | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 85.5% | 0 | 0.0% |
| | SULZER METCO 2042 POWDER 5# | 4,340.00 | 12.0% | 521 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001610 | SULZER METCO 2043 POWDER 5# | 6,638.00 | 26.0% | 1,726 | 26.0% | 1,726 | 6.0% | 398 | 16.5% | 1,095 | 0.0% |
| 1001595 | SULZER METCO 2460NS POWDER 5# | 2,505.00 | 26.0% | 651 | 25.0% | 626 | 6.0% | 150 | 16.5% | 413 | 0.0% |
| 1002385 | SULZER METCO 4198 | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | **SULZER METCO 4451** | | 36.0% | 0 | 32.0% | 0 | 10.0% | 0 | 22.0% | 0 | 0.0% |
| | SULZER METCO 5241 POWDER 10# | 1,130.00 | | 0 | | 0 | | 0 | | 0 | |
| 1001603 | SULZER METCO 5803 POWDER 5# | 1,930.00 | 0.0% | 0 | 31.0% | 598 | 0.0% | 0 | 60.0% | 1,158 | 0.0% |
| 1001586 | SULZER METCO 5803-1 | | 8.0% | 0 | 11.5% | 0 | 0.0% | 0 | 11.0% | 0 | 0.0% |
| | SULZER METCO 5810 POWDER 5# | 1,430.00 | 9.0% | 129 | 13.0% | 186 | 0.0% | 0 | 5.0% | 72 | 0.0% |
| 1001588 | SULZER METCO 5812 POWDER 5# | | 12.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 1001600 | SULZER METCO 5847 POWDER 5# | 18,625.00 | 12.0% | 2,235 | 0.0% | 0 | 0.0% | 0 | | 0 | 0.0% |
| 1001601 | SULZER METCO 5860 POWDER 5# | | 10.0% | 0 | 0.0% | 0 | 0.0% | 0 | 4.0% | 0 | 0.0% |
| | SULZER METCO 6600 POWDER | 2,550.00 | 8.0% | 204 | 6.0% | 153 | 0.0% | 0 | 0.0% | 0 | 29.0% |
| 1001604 | SULZER METCO 7372 POWDER #15 | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | SULZER METCO SPM2000-1 12.5# | | 4.0% | 0 | 50.0% | 0 | 0.0% | 0 | 8.0% | 0 | 0.0% |
| 1029027 | SUME 9013 | | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | SXH-70 / 10 LBS | 2,310.00 | 10.0% | 231 | 0.0% | 0 | 0.0% | 0 | 4.0% | 92 | 0.0% |
| 1002433 | UCP Riken -SPM-5-2702 10# | | 10.0% | 0 | 0.0% | 0 | 0.0% | 0 | 4.0% | 0 | 0.0% |
| | WOKA - RTP 2 | | 0.0% | 0 | 40.0% | 0 | 0.0% | 0 | 53.0% | 0 | 0.0% |
| | WOKA - RTP 2 | | 0.0% | 0 | 5.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | WOKA 3102 | | 0.0% | 0 | 5.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | WOKA 3105 | | 12.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | XPT 448 AMDRY DF4B POWDER | | 12.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| | XPT 459 | | 10.0% | 0 | 67.0% | 0 | 3.5% | 0 | 14.0% | 0 | 0.0% |
| | XPT 470 / SPM 7-2622 | | 0.0% | 0 | 94.0% | 0 | 4.0% | 0 | 0.0% | 0 | 0.0% |
| | XPT 595 | | 1.0% | 0 | 75.0% | 0 | 0.0% | 0 | 15.0% | 0 | 0.0% |
| | | | 50.0% | 0 | 83.0% | 0 | 0.0% | 0 | 10.0% | 0 | 0.0% |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| **Totals:** | **Totals** | 2,159,935 | | **Co** | | **Ni** | | **Al** | | **Cr** | |
| | | | | **63,302** | | **662,086** | | **108,623** | | **94,639** | |

| CrC (lb) | % Cr2O3 | Cr2O3 (lb | % Cu | Cu (lb) |
|---|---|---|---|---|
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |

P2SUL003810

| | | | | |
|---|---|---|---|---|
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 59.0% | 0 |
| 0 | 0.0% | 0 | 59.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 98.8% | 1,462 | 0.0% | 0 |
| 0 | 99.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.1% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 4.5% | 0 |
| 0 | 0.0% | 0 | 4.5% | 0 |
| 0 | 0.0% | 0 | 5.0% | 0 |
| 0 | 0.0% | 0 | 62.0% | 267 |
| 0 | 0.0% | 0 | 0.0% | 0 |

P2SUL003811

Form R Materials
2007

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|---|---|---|---|---|
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |

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|---|---|---|---|---|
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 89.0% | 2,594 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 100.0% | 6,225 |
| 0 | 0.0% | 0 | 2.0% | 25 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 2,368 | 0.0% | 0 | 0.0% | 0 |
| 180 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 15,669 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 4.0% | 49 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |

P2SUL003813

| | | | | |
|---|---|---|---|---|
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| | | | | |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 97.0% | 4,477 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 97.0% | 660 | 0.0% | 0 |
| 0 | 45.0% | 225 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 91.0% | 1,593 | 0.0% | 0 |

P2SUL003814

| | | | | |
|---|---|---|---|---|
| 0 | 91.0% | 5,469 | 0.0% | 0 |
| 0 | 91.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 2.0% | 20 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 2.4% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |

P2SUL003815

| | | | | |
|---|---|---|---|---|
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
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| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 613 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |

P2SUL003816

| | | | | |
|---|---|---|---|---|
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 89.0% | 26,820 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 89.0% | 23,269 |
| 0 | 0.0% | 0 | 89.0% | 14,689 |
| 0 | 0.0% | 0 | 89.0% | 19,878 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 62.0% | 3 |
| 0 | 0.0% | 0 | 62.0% | 0 |
| 0 | 0.0% | 0 | 59.0% | 0 |
| 0 | 0.0% | 0 | 62.0% | 766 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 80.0% | 930 |
| 0 | 0.0% | 0 | 72.0% | 4,813 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |

P2SUL003817

| | | | | |
|---|---|---|---|---|
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 4.0% | 72 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 4,600 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 43,761 | 0.0% | 0 | 0.0% | 0 |
| 1,170 | 0.0% | 0 | 0.0% | 0 |
| 665 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 85.0% | 208 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 89.0% | 20,488 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |

P2SUL003818

| | | | | |
|---|---|---|---|---|
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | | 0 | | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 1.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 740 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |
| 0 | 0.0% | 0 | 0.0% | 0 |

| | | |
|---|---|---|
| **CrC** | **Cr2O** | **Cu** |
| **69,766** | **13,884** | **121,117** |

P2SUL003819

NOVA ISLAND MESSENGER SERVICE CORP.

# Nova- Island Messenger Corp.

224 Gerard Rd. Yaphank, N.Y. 11980
631-286-3900 Fax: 631-286-7563

127214

DATE 10/11/07

| FROM | TO |
|---|---|
| Eco Test | Sulzer Metzger |
| N Babylon | 1101 Prospect Ave |
| | Westbury |
| | Att: Marian F. |

| AT | | DT | | ☐ REG ☐ SPECIAL ☐ RUSH ☐ EXCLUSIVE |
|---|---|---|---|---|

SPECIAL INSTRUCTIONS

CUSTOMER JOB NUMBER

| PICK-UP DRIVER | DELIVERY DRIVER |
|---|---|
| 13 | 13 |

Residential Deliveries: **Shipper sign here if consignee signature required.**

If consignee signature is not required, Nova-Island Messenger Corp. will deliver this shipment without obtaining a signature and the shipper agrees to indemnify and hold harmless Nova-Island Messenger Corp. from any resulting claims.

| DESCRIPTION AND NO. OF PIECES | ENVELOPES | SKIDS | CARTONS | PACKAGES | OTHER |
|---|---|---|---|---|---|
| | | | | | 1 Cooler |

CONSIGNEE SIGN FULL NAME X [signature] ABOVE GOODS RECEIVED IN GOOD CONDITION AM PM

Please print last name:

| CHARGES | |
|---|---|
| RE-DELIVER | |
| RE-PICK-UP | |
| WAITING TIME | |
| WEIGHT | |
| BULK | |
| PICK-UP CHARGE | |
| CHECK NO. | |
| CASH | |
| TOTAL | |

**The shipper hereby releases the property to a value not exceeding 100.00 per shipment for theft only.**

NOVA ISLAND
MESSENGER SERVICE CORP.

# Nova- Island Messenger Corp.

224 Gerard Rd. Yaphank, N.Y. 11980
631-286-3900 Fax: 631-286-7563

127217

DATE 10/11/07

| FROM | TO |
|---|---|
| Solger Metzen | Eco Test |
| Westbury | Babylon |
| | |
| | |

| AT | | DT | | ☐ REG ☐ SPECIAL ☐ RUSH ☐ EXCLUSIVE |
|---|---|---|---|---|

SPECIAL INSTRUCTIONS

CUSTOMER JOB NUMBER

| PICK-UP DRIVER | DELIVERY DRIVER |
|---|---|
| 13 | 13 |

**Residential Deliveries: Shipper sign here if consignee signature required.**

If consignee signature is not required, Nova-Island Messenger Corp. will deliver this shipment without obtaining a signature and the shipper agrees to indemnify and hold harmless Nova-Island Messenger Corp. from any resulting claims.

| DESCRIPTION AND NO. OF PIECES | ENVELOPES | SKIDS | CARTONS | PACKAGES | OTHER |
|---|---|---|---|---|---|
| | | | | | Sample. |

| CONSIGNEE SIGN FULL NAME | ABOVE GOODS RECEIVED IN GOOD CONDITION | AM | PM |
|---|---|---|---|
| X | | | |

Please print last name:

| CHARGES | |
|---|---|
| RE-DELIVER | |
| RE-PICK-UP | |
| WAITING TIME | |
| WEIGHT | |
| BULK | |
| PICK-UP CHARGE | |
| CHECK NO. | |
| CASH | |
| TOTAL | |

**The shipper hereby releases the property to a value not exceeding 100.00 per shipment for theft only.**

NOVA ISLAND MESSENGER SERVICE CORP.

# Nova- Island Messenger Corp.

224 Gerard Rd. Yaphank, N.Y. 11980

631-286-3900 Fax: 631-286-7563

127293

DATE 10/8/02

| FROM | TO |
|---|---|
| Solgar Metzer | Eco Test |
| Westbury | MBaldwin |
| | |
| | |

AT | DT | ☐ REG ☐ SPECIAL ☐ RUSH ☐ EXCLUSIVE

SPECIAL INSTRUCTIONS

CUSTOMER JOB NUMBER

PICK-UP DRIVER: 13

DELIVERY DRIVER: 13

Residential Deliveries: **Shipper sign here if consignee signature required.**

If consignee signature is not required, Nova-Island Messenger Corp. will deliver this shipment without obtaining a signature and the shipper agrees to indemnify and hold harmless Nova-Island Messenger Corp. from any resulting claims.

| DESCRIPTION AND NO. OF PIECES | ENVELOPES | SKIDS | CARTONS | PACKAGES | OTHER |
|---|---|---|---|---|---|
| | | | | | samples |

CONSIGNEE SIGN FULL NAME X

ABOVE GOODS RECEIVED IN GOOD CONDITION | AM | PM

Please print last name:

| CHARGES | |
|---|---|
| RE-DELIVER | |
| RE-PICK-UP | |
| WAITING TIME | |
| WEIGHT | |
| BULK | |
| PICK-UP CHARGE | |
| CHECK NO. | |
| CASH | |
| TOTAL | |

**The shipper hereby releases the property to a value not exceeding 100.00 per shipment for theft only.**

126314

# Nova- Island Messenger Corp.

224 Gerard Rd. Yaphank, N.Y. 11980

631-286-3900 Fax: 631-286-7563

NOVA ISLAND MESSENGER SERVICE CORP.

DATE 8/30/07

| FROM | TO |
|---|---|
| Sulzer | Eco Test |
| Westbury | N Babylon |
| | |
| | |

| AT | | DT | | ☐ REG ☐ SPECIAL ☐ RUSH ☐ EXCLUSIVE |
|---|---|---|---|---|

SPECIAL INSTRUCTIONS

CUSTOMER JOB NUMBER

| PICK-UP DRIVER | DELIVERY DRIVER |
|---|---|
| 13 | 13 |

Residential Deliveries: Shipper sign here if consignee signature required.

If consignee signature is not required, Nova-Island Messenger Corp. will deliver this shipment without obtaining a signature and the shipper agrees to indemnify and hold harmless Nova-Island Messenger Corp. from any resulting claims.

| DESCRIPTION AND NO. OF PIECES | ENVELOPES | SKIDS | CARTONS | PACKAGES | OTHER |
|---|---|---|---|---|---|
| | | | | | Samples |

CONSIGNEE SIGN FULL NAME X

ABOVE GOODS RECEIVED IN GOOD CONDITION

AM

PM

Please print last name:

| CHARGES | |
|---|---|
| RE-DELIVER | |
| RE-PICK-UP | |
| WAITING TIME | |
| WEIGHT | |
| BULK | |
| PICK-UP CHARGE | |
| CHECK NO. | |
| CASH | |
| TOTAL | |

**The shipper hereby releases the property to a value not exceeding 100.00 per shipment for theft only.**

NOVA ISLAND
MESSENGER SERVICE CORP.

# Nova- Island Messenger Corp.

## 224 Gerard Rd. Yaphank, N.Y. 11980

## 631-286-3900 Fax: 631-286-7563

126642

DATE 10/4/07

| FROM | TO |
|---|---|
| Sulzer | Eco Test |
| Westbury | N Babylon |
| | |
| | |

| AT | | DT | | ☐ REG ☐ SPECIAL ☐ RUSH ☐ EXCLUSIVE |
|---|---|---|---|---|

SPECIAL INSTRUCTIONS

CUSTOMER JOB NUMBER

| PICK-UP DRIVER | DELIVERY DRIVER |
|---|---|
| 13 | 13 |

Residential Deliveries: **Shipper sign here if consignee signature required.**

If consignee signature is not required, Nova-Island Messenger Corp. will deliver this shipment without obtaining a signature and the shipper agrees to indemnify and hold harmless Nova-Island Messenger Corp. from any resulting claims.

| DESCRIPTION AND NO. OF PIECES | ENVELOPES | SKIDS | CARTONS | PACKAGES | OTHER |
|---|---|---|---|---|---|
| | | | | | Samples |

CONSIGNEE SIGN FULL NAME X

ABOVE GOODS RECEIVED IN GOOD CONDITION | AM | PM

Please print last name:

| CHARGES | |
|---|---|
| RE-DELIVER | |
| RE-PICK-UP | |
| WAITING TIME | |
| WEIGHT | |
| BULK | |
| PICK-UP CHARGE | |
| CHECK NO. | |
| CASH | |
| TOTAL | |

**The shipper hereby releases the property to a value not exceeding 100.00 per shipment for theft only.**

Marion F

# SULZER METCO

December 7, 1998

**Sulzer Metco (U.S.) Inc.**
1101 Prospect Avenue
Westbury, NY 11590
Phone: (516) 334-1300
Fax: (516) 338-2296

Mr. Sitansu Ghosh
New York Emergency Response Commission
New York State Department of Environmental Conservation
Bureau of Spill Prevention and Response
50 Wolf Road / Room 340
Albany, NY 12233-3510

**Subject: TRI Identification Number, Special Notice of Significant Error, Facility Identification Number**

Dear Mr. Ghosh:

Enclosed please find the correct Dun and Bradstreet numbers for the TRI facilities 11590-PRKNL-1101P, and 11801-PRKNL-220MI.

Sulzer Metco (US), Inc.
220 Miller Place
Hicksville, NY 11801
TRI Fac. I.D. # 11801PRKNL220 MI
D&B # 15-208-4398

Sulzer Metco (US), Inc.
1101 Prospect Ave.
Westbury, NY 11590
TRI Fac. I.D. # 11590PRKNL1101P
D&B # 01-127-2254

This information is submitted as required under section 313, Title III of the Superfund Amendments and Reauthorization Act of 1986, and the Pollution Prevention Act of 1990.

Thank you.

**Michael S. Lydon**
Environment, Health & Safety
Phone #: (516) 338-2337
FAX #: (516) 338-2336

FILE: 1207982.DOC

METCO AMDRY

U.S. Environmental Protection Agency
Office of Enforcement and Compliance Assurance
Office of Compliance

TRI ID #: 11801-PRKNL-220MI 11/23/98
ATTN: Toxic Release Inventory Technical Contact
Facility: SULZER METCO U.S. INC.
Address: 220 MILLER PL.
HICKSVILLE, NY 11801

T O X I C R E L E A S E I N V E N T O R Y (T R I)

I D E N T I F I C A T I O N N U M B E R

S P E C I A L N O T I C E O F S I G N I F I C A N T E R R O R

F A C I L I T Y I D E N T I F I C A T I O N N U M B E R

The Resource Conservation and Recovery Act(RCRA),National Pollutant Discharge Elimination System (NPDES) and/or Dun and Bradstreet (D&B) identification number(s) you reported on your 1997 Toxic Release Inventory (TRI) Form R or Form A appears to be incorrect. The identification (ID) number(s) you reported is not found in EPA databases, and we are seeking corrections and/or clarifications regarding the information you submitted.

Please review the error message(s) in the attachment(s) and provide one of the following responses:

1) the attachment with an ammended RCRA, NPDES and/or D & B number(s) written on it; or
2) the attachment with documentation from EPA or a State Agency which shows that the ID number(s) you reported is correct.

Please mail your response, along with a complete photocopy of this Notice within 21 calendar days to:

The EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
ATTN: TRI Special NOSE-Facility ID Number

FAILURE TO RESPOND WITHIN 21 CALENDAR DAYS OF THE DATE OF THIS NOTICE MAY RESULT IN THE ISSUANCE OF A NOTICE OF VIOLATION. For Federal Facilities covered by Executive Order 12856, failure to respond to this Notice may result in issuance of additional error notifications.)

Send a copy of this Notice and a copy of your response to the same State organization to which you sent a copy of your original submission. EPA recommends that Government-Owned Contractor-Operated (GOCO) facilities send copies of their responses to their associated Federal Facilities.

If you have any questions about the information on this report, please call the Emergency Planning and Community Right-to-Know Act (EPRCA) Reporting Center at (703) 816-4434. Tell the operator that you are calling about the TRI Special NOSE-Facility ID Number.

Thank you in advance for your prompt response to this Notice.

Sincerely,

/s/ Elaine Stanley

Elaine Stanley, Director
Office of Compliance

Attachment (s)

TRI ID #: 11801-PRKNL-220MI 11/23/98
ATTN: Toxic Release Inventory Technical Contact
Facility: SULZER METCO U.S. INC.
Address: 220 MILLER PL.
HICKSVILLE, NY 11801

Reporting Year: 1997

| Record | Submitted D&B Number(s) | Corrected D&B Number(s) |
|---|---|---|
| 1 | 938768630 | 15-208-4398 |

The Dun and Bradstreet (D&B) Identification number(s)* listed above were submitted by your facility on Part I, Section 4.7 of the TRI Form R. This number(s) was not found to be valid in the D&B Database. Please submit a correction. In order to determine your facility's correct D&B Identification number(s), below are two suggestions:

1) Contact staff at your facility responsible for D&B information to obtain the correct number.

2) Contact Dun & Bradstreet at 1-800-333-0505 to determine the correct number for your facility or to obtain a number.

*Note that this is the facility-level D&B number and not the Parent- or Corporate-level D&B number.

**Feldhusen, Marian**

**From:** FedEx [donotreply@fedex.com]
**Sent:** Monday, February 28, 2005 8:59 AM
**To:** Feldhusen, Marian
**Subject:** FedEx shipment 792215278847

Our records indicate that the shipment sent from Marian Feldhusen/SULZER METCO US INC
to Ms. Alyse Peterson Radioactive/Waste Pol has been delivered.
The package was delivered on 02/28/2005 at 8:55 AM and signed for
or released by R.ABBOTT.

The ship date of the shipment was 02/25/2005.

The tracking number of this shipment was 792215278847.

FedEx appreciates your business. For more information about FedEx services,
please visit our web site at http://www.fedex.com

To track the status of this shipment online please use the following:
http://www.fedex.com/cgi-bin/tracking?tracknumbers=792215278847
&action=track&language=english&cntry_code=us

Disclaimer
---
FedEx has not validated the authenticity of any email address.

SULZER

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
Westbury, NY 11590
United States of America
www.sulzermetco.com
(516) 334-1300

February 24, 2005

Ms. Alyse Peterson, Project Manager
Radioactive Waste Policy and Nuclear Coordination
New York State Energy Research and Development Authority
17 Columbia Circle
Albany, NY 12203-6399

**Subject: 2004 Low-Level Radioactive Waste Reports**

Dear Ms. Peterson:

Enclosed are the completed 2004 Low-Level Radioactive Waste Reports for Sulzer Metco's facilities located at 1101 Prospect Avenue in Westbury, New York and 220 Miller Place in Hicksville, New York.

During 2004, the Hicksville facility was sold and is no longer owned or operated by Sulzer Metco. The manufacturing process that generates the LLRW has been moved to our Westbury site.

Please feel free to contact us with any questions.

Sincerely,
Sulzer Metco (US) Inc.

Peter DiPietrantonio
Environmental, Health & Safety Specialist

TRI FACILITY ID: 11801-PRKNL-220MI
DATE: 11/15/94

PERKIN-ELMER CORP. METCO DIV.
220 MILLER PL.
HICKSVILLE, NY 11801

# R E L E A S E  V A L U E  R E P O R T

| Document Control Nbr. | Chemical Name | CAS Number |
|---|---|---|
| 13-93-07524994-4-NY | NICKEL | 007440-02-0 |

| | | |
|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA |
| 5.2 | Stack or point air emissions | 1 - 10 |
| 5.3.A | Discharges to water bodies NA | NA |
| 5.4 | Underground injections on-site | NA |
| 5.5.1 | Releases to landfill | NA |
| 5.5.2 | Releases to land treatment/application farming | NA |
| 5.5.3 | Releases to surface impoundment | NA |
| 5.5.4 | Releases to other land disposal | NA |
| 6.2.01 | Transfer to other off-site LONI-JO METAL CORP. | 31,000 |
| 6.2.02 | Transfer to other off-site | NA |
| 6.1.A | Total quantity transferred to POTWs | NA |
| 8.1.A | Quantity released | 0 |
| 8.1.B | Quantity released | 0 |
| 8.1.C | quantity released | 0 |
| 8.1.D | Quantity released | 0 |
| 8.2.A | Quantity used for energy recovery on-site | 0 |
| 8.2.B | Quantity used for energy recovery on-site | 0 |
| 8.2.C | Quantity used for energy recovery on-site | 0 |
| 8.2.D | Quantity used for energy recovery on-site | 0 |
| 8.3.A | Quantity used for energy recovery off-site | 0 |
| 8.3.B | Quantity used for energy recovery off-site | 0 |
| 8.3.C | Quantity used for energy recovery off-site | 0 |
| 8.3.D | Quantity used for energy recovery off-site | 0 |
| 8.4.A | Quantity recycled on-site | 0 |
| 8.4.B | Quantity recycled on-site | 0 |
| 8.4.C | Quantity recycled on-site | 0 |
| 8.4.D | Quantity recycled on-site | 0 |
| 8.5.A | Quantity recycled off-site | 11,900 |
| 8.5.B | Quantity recycled off-site | 31,000 |
| 8.5.C | Quantity recycled off-site | 31,000 |
| 8.5.D | Quantity recycled off-site | 31,000 |
| 8.6.A | Quantity treated on-site | 0 |
| 8.6.B | Quantity treated on-site | 0 |
| 8.6.C | Quantity treated on-site | 0 |
| 8.6.D | Quantity treated on-site | 0 |
| 8.7.A | Quantity treated off-site | 0 |
| 8.7.B | Quantity treated off-site | 0 |
| 8.7.C | Quantity treated off-site | 0 |
| 8.7.D | Quantity treated off-site | 0 |
| 8.8 | Quantity released from catastrophic/remedial action | NA |
| 8.9 | Production ratio or activity index | .89 |

## Section I (Continued)

**Box H:** Form Code

Review the Form Codes on page 87 and enter the code that best corresponds to the physical/chemical state of the hazardous waste stream reported in Box A. Blanks are not permitted, you must assign a form code.

**Box I:** RCRA-radioactive mixed

Is the waste reported in Box A a hazardous waste that is mixed with nuclear source, special nuclear, or by-product material?

| Code | RCRA-radioactive mixed |
|---|---|
| 1 | Yes |
| 2 | No |
| 8 | Don't know |

> **NOTE:** If nuclear source, special nuclear, or by-product material (see Definitions section, page 50) as defined by the Atomic Energy Act of 1954, as amended 42 U. S. C. 2011 et seq. from the Atomic Energy Act, is mixed with a RCRA hazardous waste stream, the material is controlled under RCRA regulation, as well as under the Atomic Energy Act (DOE, NRC, and EPA) regulations, and is to be reported in the 1992 Hazardous Waste Report.

**Box J:** Reported TRI constituents

Enter the code that best describes the relationship of the waste stream and the site's requirement to submit the Toxic Chemical Release Inventory (TRI) Report Form in 1991 (Form R). (Refer to the Definitions section, page 50, for a description of the TRI and Form R.)

| Code | Reported TRI constituents |
|---|---|
| 1 | The site did not file a TRI report. |
| 2 | The site filed a TRI report but the waste described in Section I, Box A contains no TRI constituents for which a Form R was filed. |
| 3 | The site filed a TRI report and the waste described in Section I contains one or more TRI constituents for which a Form R was completed. |
| 8 | Don't know |

> **Skip to Section II** if you entered code 1, 2, or 8.
> **Continue to Box K** if you entered code 3.

**Box K:** CAS numbers

Complete Box K only if you entered code 3 in Box J. Enter the Chemical Abstract System (CAS) numbers, exactly as they appear on your 1991 Form R submission, for up to five TRI constituents present in the waste. Enter the CAS numbers representing the TRI constituents in

TRANSMISSION REPORT

**********

:ENV COMP & CTRL/FACL ( JAN 23 '95 04:51PM )

| DATE | START TIME | REMOTE TERMINAL IDENTIFICATION | MODE | TIME | RESULTS | TOTAL PAGES | DEPT. CODE | FILE NO. |
|---|---|---|---|---|---|---|---|---|
| JAN 23 | 04:49PM | 5162497610 | G3ST | 01'50" | OK | 03 | 0569 | |

**SULZER METCO**

**Sulzer Metco (Westbury) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone:(516) 334-1300
Fax: (516) 338-2477

# Telefax

**Place, date:** Westbury, January 23, 1995

**To:** Tom Eng
Fax: (516) 249-7610

**From:** Constance Conroy

**Total pgs:** 3

**Copy to:**

**Re:**

METCO®
PERKIN ELMER™

Metc
The
West

# METCO CLEANING SOLVENT

**A NON-FLAMMABLE SOLVENT FOR DEGREASING AND CLEANING METAL SURFACES PRIOR TO THERMAL SPRAYING.**

**INSTRUCTIONS:**
Use cold. Do not use for vapor phase degreasing.

Wipe or brush, using rags or brush.

Do not pour used solvent back in can.

Do not use on rubber or plastics.

Do not use in oxygen systems.

Do not contaminate with water.

Do not vaporize in presence of ignition sources.

**CONTENTS 1 GALLON U.S.**

Label Q5036. Iss. h

ID

,vision
:in-Elmer Corporation
y, NY 11590-0201

NO. 05035

**HAZARD NOTICE:** This material is for the thermal spraying process. Consult the METCO Instruction Manual, the Material Safety Data Sheet, and applicable Federal and local jurisdiction safety and health regulations before utilizing this product. This product should not be ingested; inhalation and skin contact should be avoided. Local ventilation, skin and respiratory protection should be used during handling. Good housekeeping and personal hygiene should be practiced. Some individuals may show unusual sensitivity to exposure. Failure to observe proper practices may result in health hazards.

**FOR EMERGENCY ASSISTANCE CALL**
**CHEMTREC – DAY OR NIGHT**
**1-800-424-9300**

**HARMFUL OR FATAL IF INHALED. HARMFUL OR FATAL IF SWALLOWED.**
**CONTAINS 1, 1, 1 - TRICHLOROETHANE.**
**USE ONLY WITH ADEQUATE VENTILATION. FOR INDUSTRIAL USE ONLY.**

**Specific Effects Of Overexposure:**
**1, 1, 1 - Trichloroethane:** Hazard by inhalation, ingestion, skin and eye contact. Inhalation may cause an anesthetic effect and has been shown to cause pathological changes in the liver and lungs of some animal species. Inhalation or ingestion may produce symptoms of dizziness, drowsiness, distorted perceptions, motor activity changes, irritability, aggression, diarrhea, nausea, vomiting or other gastrointestinal tract changes. Narcotic in high concentrations. Cardiac sensitization can occur in high exposures. Long term overexposure may cause liver/kidney damage. Skin contact may cause irritation, defatting of the skin causing redness and scaliness. Eye contact may produce severe irritation.
**Target Organs:** Cardiovascular system, Central nervous system, gastrointestinal tract, liver, kidney, skin, eyes.

**In Case of Fire:**
Extinguishing Media: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or foam).
Unusual Fire and Explosion Hazards: 1, 1, 1 - Trichloroethane is moderately flammable at higher temperatures; no flash point when tested in conventional closed tester at ordinary room temperatures.
Special Fire Fighting Procedures: Fire fighters should wear a NIOSH/MSHA approved pressure-demand, self-contained breathing apparatus for possible exposure to hydrogen chloride and possible traces of phosgene. When heated to decomposition can emit highly toxic phosgene, hydrogen chloride and chlorine. May also be decomposed slowly by contact with water to hydrogen chloride.

**In Case of Spill or Leak:**
Immediately evacuate the area Unprotected personnel should move upwind of spill. Only personnel equipped with proper respirator and skin/eye protection should be permitted in area. Take precautions as necessary to prevent contamination of ground and surface waters.

**Special Protection Information:**
Adequate local/general ventilation should be provided when using this product. Appropriate respiratory, skin, eye and hand protection should be utilized when using this product.

**Special Precautions:**
Precautions to be Taken in Handling and Storing: Store away from incompatibles. Keep containers closed when not in use Do not store in open, unlabeled or mislabeled containers. Do not transfer contents to bottles or other unlabeled containers. Store in a cool and dry area. Do not use in poorly ventilated or confined areas
Other Precautions Avoid oral ingestion and excessive skin contact. Clean hands thoroughly after using especially before eating DO NOT FLAME CUT, BRAZE OR WELD EMPTY CONTAINERS. KEEP CONTAINERS CLOSED WHEN NOT IN USE.
Waste Disposal Method Dispose of the chemical materials and/or their containers in accordance with federal, state or local laws/regulations regarding disposal.

**USING THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD CLASSIFICATIONS. THIS PRODUCT'S HAZARD CLASSIFICATION IS:**

| | |
|---|---|
| HEALTH | 3 |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | See the MSDS for proper personal protective equipment. |

Flash Point None at ordinary room temperatures.

UN2831, ORM-A

**WARNING:** Contains Methyl Chloroform, a substance that harms public health and environment by destroying ozone in the upper atmosphere.

*While this information is furnished in good faith, no guaranty is made as to accuracy. This material is for the Thermal Spraying Process, and relevant instructions should be consulted before use. The user assumes all risks in connection with the use of this material. METCO PERKIN-ELMER shall in no event be liable for special, incidental or consequential damages in connection with this information, or for any damage or injury caused by this material if used for any other purpose than the Thermal Spray Process, or if proper safety and health practices are not followed.*

Form Approved OMB No.: 2070-0093

Approval Expires: 01'94

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

**EPA FORM R**

**PART I. FACILITY IDENTIFICATION INFORMATION**

(This space for your optional use.)

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [X] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [ ] Unsanitized

1.3 Reporting Year 19 90

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe — Superintendent, Facilities Coordination

Signature: Patrick A. Tighe

Date signed: June 28, 1991

**3. FACILITY IDENTIFICATION**

3.1 Facility or Establishment Name: Metco Division Perkin-Elmer Corporation

Street Address: 220 Miller Place

City: Hicksville | County: Nassau

State: New York | Zip Code: 11801

TRI Facility Identification Number: 11801PRKNL220MI

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe — Telephone Number (include area code): (516) 334-1300 Ext. 495

3.4 Public Contact: Same as 3.3 — Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3399 b. c. d. e. f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 086 | 13 | 00 | 003 | 47 | 00 |

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NYD981558570 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company: Perkin-Elmer Corporation

4.2 Parent Company's Dun & Bradstreet Number: 00-118-4480

EPA

# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

### 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

### 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) 7429-90-5 |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) Aluminum Powder |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

2. Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution; f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | d. [X] Repackaging only | b. [ ] As a formulation component | | c. [X] As an article component |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | | b. [ ] As a manufacturing aid | | c. [ ] Ancillary or other use |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][4] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2)

| | | A. Total Release (pounds/year) A.1 Reporting Ranges 1-10 / 11-499 / 500-999 | A. Total Release A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [ ] [ ] [ ] | NA | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [ ] [ ] [ ] | 1700 | 5.2b [C] | |
| 5.3 Discharges to receiving streams or water bodies (Enter letter code from Part I Section 3.10 for stream(s) in the box provided.) 5.3.1 [ ] | 5.3.1a | [ ] [ ] [ ] | NA | 5.3.1b [ ] | 5.3.1c % |
| 5.3.2 [ ] | 5.3.2a | [ ] [ ] [ ] | NA | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [ ] [ ] [ ] | NA | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection | 5.4a | [ ] [ ] [ ] | NA | 5.4b [ ] | |
| 5.5 Releases to land 5.5.1 On-site landfill | 5.5.1a | [ ] [ ] [ ] | NA | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [ ] [ ] [ ] | NA | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [ ] [ ] [ ] | NA | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [ ] [ ] [ ] | NA | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

EPA

EPA FORM R

PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

## 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/yr) A.1 Reporting Ranges 1-10 / 11-499 / 500-999 | A. Total Transfers (pounds/yr) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 | [ ] [ ] [ ] | NA | 6.1.1b | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | NA | 6.2.1b | 6.2.1c M |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | NA | 6.2.2b | 6.2.2c M |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | NA | 6.2.3b | 6.2.3c M |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

## 7. WASTE TREATMENT METHODS AND EFFICIENCY

NA Not Applicable (NA) - Check if no on-site treatment is applied to any waste stream containing the chemical or chemical catagory

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a | 7.1b | 7.1c | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a | 7.2b | 7.2c | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a | 7.3b | 7.3c | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a | 7.4b | 7.4c | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a | 7.5b | 7.5c | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a | 7.6b | 7.6c | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a | 7.7b | 7.7c | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a | 7.8b | 7.8c | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a | 7.9b | 7.9c | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a | 7.10b | 7.10c | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

## 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal: Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| M 7 | _____ | _____ | [ ] + [ ] - _____ % | [ ] . [ ] | R |

*(Important: Type or print; read instructions before completing form.)*



**EPA**

# EPA FORM R
## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

## ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | | A. Total Release (pounds/yr) | | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|---|---|
| | | | A.1 Reporting Ranges 1-10 11-499 500-999 | A.2 Enter Estimate | | |
| 5.3 Discharges to receiving streams or water bodies | 5.3.___ ☐ | 5.3.___a | [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| (Enter letter code from Part I Section 3.10 for stream(s) in the box provided.) | 5.3.___ ☐ | 5.3.___a | [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| | 5.3.___ ☐ | 5.3.___a | [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

## ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/yr) | | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| | A.1 Reporting Ranges 1-10 11-499 500-999 | A.2 Enter Estimate | | |
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 ☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |

## ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

**2500 Broening Highway Baltimore, Maryland 21224**
**(410) 631-3344 1-800-633-6101 (within Maryland) http://www.mde.state.md.us**

## HAZARDOUS WASTE PROGRAM
## HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039.

In case of an emergency or spill, immediately call the National Response Center at (800) 424-8802 and the MDE at (410) 631-3400. Nights and Holidays at (410) 974-3551.

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No. [illegible] Manifest Document No. [illegible]
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Quizer Metro US Inc, 1101 Prospect Avenue, Westbury, NY 11590
4. Generator's Phone ( 516 358-2337

A. State Manifest Document Number: MDC 0942504
B. State Generator's ID: [illegible]
C. State Transporter's ID: HWH [illegible] DC [illegible]
D. Transporter's Phone: [illegible]
E. State Transporter's ID: HWH DC
F. Transporter's Phone
G. State Facility ID
H. Facility's Phone: [illegible]

5. Transporter 1 Company Name: Clean Harbors Env Services Inc
6. US EPA ID Number: [illegible]
7. Transporter 2 Company Name
8. US EPA ID Number
9. Designated Facility Name and Site Address: Clean Harbors of Baltimore Inc, 1910 Russell Street, Baltimore, MD 21230
10. US EPA ID Number: [illegible]

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|
| a. NON DOT REGULATED MATERIAL (NYLON TURNINGS) NON DOT HAZARDOUS. NONE, NONE | 006 | DM | C1500 | P | NONE |
| b. | | | | | |
| c. | | | | | |
| d. | | | | | |

J. Additional Descriptions for Materials Listed Above

| | Haz. Code | Physical State | Specific Gravity | Percentage | | Haz. Code | Physical State | Specific Gravity | Percentage |
|---|---|---|---|---|---|---|---|---|---|
| a. | | | | | c. | | | | |
| b. | | | | | d. | | | | |

K. Handling Codes for Wastes Listed Above: a. c. b. d.

15. Special Handling Instructions and Additional Information: [illegible] 6 x 55 IN EMERGENCY, CALL [illegible]

16. GENERATORS CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Maryland Statutes or Regulation.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] Signature: [illegible] Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name: Frank Ricciardelli Signature: [illegible] Month Day

18. Transporter 2 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name Signature Month Day

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. — Date
Printed/Typed Name Signature Month Day

MDC 0942504

EPA Form 8700-22 (9-99)
Previous editions are obsolete.

COPY 6 - GENERATOR: DETACH & MAIL TO DISPOSER STATE

P2SUL007134

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

**2500 Broening Highway Baltimore, Maryland 21224**
**(410) 631-3344 1-800-633-6101 (within Maryland) http://www.mde.state.md.us**

## HAZARDOUS WASTE PROGRAM
## HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039.

In case of an emergency or spill, immediately call the National Response Center at (800) 424-8802 and the MDE at (410) 631-3400. Nights and Holidays at (410) 974-3551.

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No. [illegible] Manifest Document No. [illegible]
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: [illegible]
4. Generator's Phone ( [illegible]

A. State Manifest Document Number: MDC 0942504
B. State Generator's ID: [illegible]
C. State Transporter's ID: HWH [illegible] DC [illegible]
D. Transporter's Phone: [illegible]
E. State Transporter's ID: HWH DC
F. Transporter's Phone
G. State Facility ID
H. Facility's Phone: [illegible]

5. Transporter 1 Company Name: [illegible] Harbors Way Services Inc
6. US EPA ID Number: [illegible]
7. Transporter 2 Company Name
8. US EPA ID Number
9. Designated Facility Name and Site Address: [illegible] Harbors of Baltimore Inc [illegible] Street Baltimore, MD 21230
10. US EPA ID Number: [illegible]

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|
| a. NON DOT REGULATED MATERIAL (NYLON TURNINGS). NON DOT HAZARDOUS. NONE. NONE | 006 | DM | [illegible] | [illegible] | NONE |
| b. | | | | | |
| c. | | | | | |
| d. | | | | | |

J. Additional Descriptions for Materials Listed Above

| | Haz. Code | Physical State | Specific Gravity | Percentage | | Haz. Code | Physical State | Specific Gravity | Percentage |
|---|---|---|---|---|---|---|---|---|---|
| a. | | S | | | c. | | | | |
| b. | | | | | d. | | | | |

K. Handling Codes for Wastes Listed Above: a. c. b. d.

15. Special Handling Instructions and Additional Information: [illegible] 6 x 55 [illegible]

16. GENERATORS CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Maryland Statutes or Regulation.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] Signature: Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name: [illegible] Signature: [illegible] Month Day

18. Transporter 2 Acknowledgement of Receipt of Materials — Date
Printed/Typed Name Signature Month Day

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. — Date
Printed/Typed Name Signature Month Day

MDC 0942504

EPA Form 8700-22 (9-99)
Previous editions are obsolete.

COPY 7 - GENERATOR: DETACH & MAIL TO GENERATOR STATE

P2SH1007135

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

2500 Broening Highway Baltimore, Maryland 21224
(410) 631-3344 1-800-633-6101 (within Maryland) http://www.mde.state.md.us

## HAZARDOUS WASTE PROGRAM
## HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039.

In case of an emergency or spill, immediately call the National Response Center at (800) 424-8802 and the MDE at (410) 631-3400. Nights and Holidays at (410) 974-3551.

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number
MDC 0942504

B. State Generator's ID

C. State Transporter's ID
HWH DC

5. Transporter 1 Company Name | 6. US EPA ID Number

D. Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID
HWH DC

9. Designated Facility Name and Site Address | 10. US EPA ID Number

F. Transporter's Phone

G. State Facility ID

H. Facility's Phone

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|
| a. | | | | | |
| b. | | | | | |
| c. | | | | | |
| d. | | | | | |

J. Additional Descriptions for Materials Listed Above

| | Haz. Code | Physical State | Specific Gravity | Percentage | | Haz. Code | Physical State | Specific Gravity | Percentage |
|---|---|---|---|---|---|---|---|---|---|
| a. | | | | | c. | | | | |
| b. | | | | | d. | | | | |

K. Handling Codes for Wastes Listed Above

a. c.

b. d.

15. Special Handling Instructions and Additional Information

16. GENERATORS CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Maryland Statutes or Regulation.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Month Day Year

GENERATOR

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day

TRANSPORTER

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day

FACILITY

MDC 0942504

EPA Form 8700-22 (9-99)
Previous editions are obsolete.

P2SUL007136

COPY 8 - GENERATOR: DETACH & RETAIN THIS COPY

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

2500 Broening Highway Baltimore, Maryland 21224
(410) 631-3344 1-800-633-6101 (within Maryland) http://www.mde.state.md.us

## HAZARDOUS WASTE PROGRAM
## HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039.

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Sherwin Williams Co Inc
1191 Pennsylvania Avenue
Hagerstown, MD 21740

A. State Manifest Document Number
MDC 0942503

B. State Generator's ID SAME

4. Generator's Phone ( 301 ) 733-2337

C. State Transporter's ID
HWH [illegible] DC [illegible]

5. Transporter 1 Company Name | 6. US EPA ID Number
Clean Harbors Env Services Inc | MAD 9 8 5 2 2 4 0 4 0

D. Transporter's Phone 781 821 1500

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID
HWH DC

9. Designated Facility Name and Site Address | 10. US EPA ID Number
Clean Harbors of Baltimore Inc
1910 Russell Street
Baltimore, MD 21230 | MDD 9 8 2 5 1 0 9

F. Transporter's Phone

G. State Facility ID

H. Facility's Phone 410 281 0999

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|
| a. WASTE PAINT RELATED MATERIAL, 3, UN1263, II | 001 | DM | 00502 | P | D001 |
| b. NON DOT REGULATED MATERIAL (MAY BE RESIDUE), NON DOT HAZARDOUS, NONE, NONE | 014 | DM | 01400 | P | NONE |
| c. NON DOT REGULATED MATERIAL NON DOT HAZARDOUS, NONE | 007 | DM | 02402 | P | NONE |
| d. NON DOT REGULATED MATERIAL, NON DOT HAZARDOUS, NONE | 003 | DM | 01320 | P | NONE |

J. Additional Descriptions for Materials Listed Above

| | Haz. Code | Physical State | Specific Gravity | Percentage | Haz. Code | Physical State | Specific Gravity | Percentage |
|---|---|---|---|---|---|---|---|---|
| a. | | L | | | c. | | | |
| b. | | L | | | d. | | | |

K. Handling Codes for Wastes Listed Above
a. c.
b. d.

15. Special Handling Instructions and Additional Information
[illegible] 1X55
14X55
6X56 - 1X85
IN EMERGENCY, CALL CHEM TREC 800 424 9300.

16. GENERATORS CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Maryland Statutes or Regulation.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Month Day Year

**TRANSPORTER**

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Paul Kirkpatrick | Signature | Date: Month 05 Day 21

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day

**FACILITY**

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name | Signature | Date: Month Day

MDC 0942503

In case of an emergency or spill, immediately call the National Response Center at (800) 424-8802 and the MDE at (410) 631-3400. Nights and Holidays at (410) 974-3551.

EPA Form 8700-22 (9-99) Previous editions are obsolete.

COPY 6 - GENERATOR'S FILE COPY & MAIL TO DISPOSER STATE [illegible]

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

2500 Broening Highway Baltimore, Maryland 21224
(410) 631-3344 1-800-633-6101 (within Maryland) http://www.mde.state.md.us
HAZARDOUS WASTE PROGRAM
HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039.

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number MDC 0942503
B. State Generator's ID
C. State Transporter's ID HWH DC
D. Transporter's Phone
E. State Transporter's ID HWH DC
F. Transporter's Phone
G. State Facility ID
H. Facility's Phone

5. Transporter 1 Company Name | 6. US EPA ID Number

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address | 10. US EPA ID Number

Clean Harbors Baltimore Inc
1610 Russell Street
Baltimore MD 21230

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|
| a. WASTE PAINT RELATED MATERIAL, 3, UN1263, II | 001 | DM | 00455 | P | |
| b. NON DOT REGULATED MATERIAL ONLY UNDER NON DOT HAZARDOUS, NON, NONE | 014 | DM | 01400 | P | NONE |
| c. NON DOT REGULATED MATERIAL, NON DOT HAZARDOUS, NONE | 001 | DM | 00055 | P | NONE |
| d. NON DOT REGULATED MATERIAL, NON DOT HAZARDOUS, NONE | 003 | DM | 00330 | P | NONE |

J. Additional Descriptions for Materials Listed Above

| | Haz. Code | Physical State | Specific Gravity | Percentage | | Haz. Code | Physical State | Specific Gravity | Percentage |
|---|---|---|---|---|---|---|---|---|---|
| a. | | | | | c. | | | | |
| b. | | | | | d. | | | | |

K. Handling Codes for Wastes Listed Above
a. c.
b. d.

15. Special Handling Instructions and Additional Information
1 x 55
14 x 55
6 x 55 - 1 x 85

16. GENERATORS CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and national government regulations, and Maryland Statutes or Regulation.

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Printed/Typed Name | Signature | Month Day Year

**TRANSPORTER**

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date Month Day

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date Month Day

**FACILITY**

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name | Signature | Date Month Day

In case of an emergency or spill, immediately call the National Response Center at (800) 424-8802 and the MDE at (410) 631-3400. Nights and Holidays at (410) 974-3551

MDC 0942503

EPA Form 8700-22 (9-99)
Previous editions are obsolete.

COPY 7 - GENERATOR: DETACH & MAIL TO GENERATOR STATE

P2SUL007108

# MARYLAND DEPARTMENT OF THE ENVIRONMENT
## 2500 Broening Highway Baltimore, Maryland 21224
## (410) 631-3344 1-800-633-6101 (within Maryland) http://www.mde.state.md.us
## HAZARDOUS WASTE PROGRAM
## HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039.

In case of an emergency or spill, immediately call the National Response Center at (800) 424-8802 and the MDE at (410) 631-3400. Nights and Holidays at (410) 974-3551.

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number: MDC 0942503

B. State Generator's ID

C. State Transporter's ID: HWH DC

5. Transporter 1 Company Name | 6. US EPA ID Number

D. Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID: HWH DC

9. Designated Facility Name and Site Address | 10. US EPA ID Number

F. Transporter's Phone

G. State Facility ID

H. Facility's Phone

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|
| a. | | | | | |
| b. | | | | | |
| c. | | | | | |
| d. | | | | | |

J. Additional Descriptions for Materials Listed Above

| | Haz. Code | Physical State | Specific Gravity | Percentage | | Haz. Code | Physical State | Specific Gravity | Percentage |
|---|---|---|---|---|---|---|---|---|---|
| a. | | | | | c. | | | | |
| b. | | | | | d. | | | | |

K. Handling Codes for Wastes Listed Above

a. c.

b. d.

15. Special Handling Instructions and Additional Information

1 x 55
11 x 55
6 x 55 - 1 x 85
7 x 55

16. GENERATORS CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Maryland Statutes or Regulation.

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GENERATOR

Printed/Typed Name | Signature | Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day

TRANSPORTER

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day

FACILITY

MDC 0942503

EPA Form 8700-22 (9-99)
Previous editions are obsolete.

P2SUL007139

COPY A - GENERATOR: DETACH & RETAIN THIS COPY

REMIT TO:

Clean Harbors
ENVIRONMENTAL SERVICES COMPANIES

P.O. Box 3442, Boston, MA 02241-3442

# INVOICE

OFFICE



Clean Harbors Env. Services
1501 Washington Street
P.O. Box 859048
Braintree, MA 02185-9048
(800) 444-4244

*If you have any questions regarding this invoice, please contact your customer service representative at the telephone # listed above.*

SOLD TO
Joseph Reardon
Sulzer Metco US Inc
Attn: Accounts Payable
1101 Prospect Avenue
Westbury, NY 11590

JOB SITE
Sulzer Metco US Inc
1101 Prospect Avenue
Westbury, NY 11590

Job Description: WATER SOLUBLE OIL

| CUSTOMER | JOB NO. | PURCHASE ORDER NO. | SALESMAN | TERMS | INVOICE DATE | INVOICE NO. |
|---|---|---|---|---|---|---|
| SUL025 | D3389596 | 318975 | Marazitl | NET 15 DAYS | 01/08/02 | D30222717 |

| QUANTITY | ITEM I.D. | DESCRIPTION | PRICE | U/M | | AMOUNT |
|---|---|---|---|---|---|---|
| | | ~~08-Jan-2002~~ | | | | |
| 1.00 | STOP | Stop Fee | 125.000 | EA | T | 125.00 |
| 3.00 | CH189141 | WATER SOLUBLE OIL<br>Offspec. Oil water mix.<br>BOL66520 / 11A | 95.000 | 55DM | T | 285.00 |
| 3.00 | CH189102 | OIL SPILL CLEANUP/FILTERS<br>BOL66520 / 11B | 65.000 | 55DM | T | 195.00 |
| 8.00 | CH189144 | NYLON TURNINGS<br>BOL66520 / 11C | 65.000 | 55DM | T | 520.00 |
| 4.00 | CH189111 | WASTE COMPRESSOR OIL<br>BOL66520 / 11D | 45.000 | 55DM | T | 180.00 |
| 1.00 | CH189108 | RCRA METAL & CERAMIC POWDER 952<br>CTF1002587 / 11A | 125.000 | 55DM | T | 125.00 |
| 19.00 | TRANSPOR | TRANSPORTATION | 10.000 | EA | T | 190.00 |

20% 8520
8531
8540
8541
8550

SCANNED
JAN 25 2002

| | |
|---|---|
| | $1,620.00 |
| SUBTOTAL | |
| SALES TAX | $139.08 |
| INVOICE TOTAL | $1,759.08 |

* TERMS:
NET 15 DAYS FROM INVOICE DATE
T indicates SALES TAXABLE ITEM

CHI-INV (2/99)

PLEASE RETURN COPY OF INVOICE WITH PAYMENT – THANK YOU

*** END OF INVOICE D30222717 ***

REMIT TO:

**Clean Harbors**

ENVIRONMENTAL SERVICES COMPANIES

P.O. BOX 510, BOSTON, MA 02102

# INVOICE

OFFICE



Clean Harbors Env. Services
1501 Washington Street
P.O. Box 859048
Braintree, MA 02185-9048
(800) 444-4244

*If you have any questions regarding this invoice, please contact your customer service representative at the telephone # listed above.*

SOLD TO
Joseph Reardon
Sulzer Metco US Inc
Attn: Accounts Payable
1101 Prospect Avenue
Westbury, NY 11590

JOB SITE
Sulzer Metco US Inc
1101 Prospect Avenue
Westbury, NY 11590

Job Description: Drum Shipment

| CUSTOMER | JOB NO. | PURCHASE ORDER NO. | SALESMAN | TERMS | INVOICE DATE | INVOICE NO. |
|---|---|---|---|---|---|---|
| SUL025 | D3378413 | 318975 | Maraziti | NET 15 DAYS | 11/29/01 | D30113823 |

| QUANTITY | ITEM I.D. | DESCRIPTION | PRICE | U/M | | AMOUNT |
|---|---|---|---|---|---|---|
| | | 29 Nov 2001 | | | | |
| 1.00 | STOP | Stop Fee | 125.000 | EA | T | 125.00 |
| 2.00 | CH189111 | WASTE COMPRESSOR OIL * | 95.000 | $5DM | T | 190.00 |
| | | Offspec. >40% water | | | | |
| | | BOL66191 / 11A | | | | |
| 1.00 | CH189107 | METAL & CERAMIC POWDERS 952 | 75.000 | $5DM | T | 75.00 |
| | | Offspec due to excessive free liquid | | | | |
| | | BOL66191 / 11B | | | | |
| 3.00 | CH189144 | NYLON TURNINGS * | 65.000 | $5DM | T | 195.00 |
| | | BOL66191 / 11C | | | | |
| 5.00 | CH189142 | COPPER CLEANER/CHROMIC ACID 8590 | 165.000 | $5DM | T | 825.00 |
| | | CTF1002535 / 11A | | | | |
| 1.00 | TRANSPOR | TRANSPORTATION * | 250.000 | EA | T | 250.00 |

20%
8520
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Please note our new remit to address:

P.O. Box 3442
Boston, MA 02241-3442

| | |
|---|---|
| | $1,660.00 |
| SUBTOTAL | |
| SALES TAX | $269.70 |
| INVOICE TOTAL | $1,929.70 |

TERMS:
ET 15 DAYS FROM INVOICE DATE
indicates SALES TAXABLE ITEM

4-INV (2/99)

**PLEASE RETURN COPY OF INVOICE WITH PAYMENT – THANK YOU**

*** END OF INVOICE D30113823 ***

REMIT TO:

**CleanHarbors**

ENVIRONMENTAL SERVICES COMPANIES

Please note our new remit to address:

P.O. Box 3442
Boston, MA 02241-3442

OFFICE



Clean Harbors Env. Services
1501 Washington Street
P.O. Box 859048
Braintree, MA 02185-9048
(800) 444-4244

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Sulzer Metco US Inc
Attn: Accounts Payable
1101 Prospect Avenue
Westbury, NY 11590

JOB SITE
Sulzer Metco US Inc
1101 Prospect Avenue
Westbury, NY 11590

Job Description: Drum Shipment

| CUSTOMER | JOB NO. | PURCHASE ORDER NO. | SALESMAN | TERMS | INVOICE DATE | INVOICE NO. |
|---|---|---|---|---|---|---|
| SUL025 | D3369199 | 318975 | Maraziti | NET 15 DAYS | 10/30/01 | D3018499 |

| QUANTITY | ITEM I.D. | DESCRIPTION | PRICE | U/M | | AMOUNT |
|---|---|---|---|---|---|---|
| | | 30-Oct-2001 | | | | |
| 1.00 | STOP | Stop Fee | 125.000 | EA | T | 125.00 |
| 6.00 | CH189102 | OIL SPILL CLEANUP/FILTERS<br>BOL66030 / 11A | 65.000 | $5DM | T | 390.00 |
| 5.00 | CH189107 | METAL & CERAMIC POWDERS 952<br>BOL66030 / 11B | 65.000 | $5DM | T | 325.00 |
| 1.00 | CH189110 | GRIT BLAST MATERIAL<br>BOL66030 / 11C | 65.000 | $5DM | T | 65.00 |
| 4.00 | CH189111 | WASTE COMPRESSOR OIL<br>Offspec due to 20% water<br>BOL66030 / 11D | 95.000 | $5DM | T | 380.00 |
| 1.00 | CH189141 | WATER SOLUBLE OIL<br>BOL66030 / 11E | 65.000 | $5DM | T | 65.00 |
| 6.00 | CH189144 | NYLON TURNINGS<br>BOL66030 / 11F | 65.000 | $5DM | T | 390.00 |
| 2.00 | CH189142 | COPPER CLEANER/CHROMIC ACID > 8590<br>CTF1002484 / 11A | 165.000 | $5DM | T | 330.00 |
| 3.00 | CH189108 | RCRA METAL & CERAMIC POWDER<br>CTF1002484 / 11B | 125.000 | $5DM | T | 375.00 |
| 28.00 | TRANSPOR | TRANSPORTATION | 10.000 | MA | T | 280.00 |

20%

8520
8531
8540
8541

8550

| | |
|---|---|
| SUBTOTAL | $2,725.00 |
| SALES TAX | $231.63 |
| INVOICE TOTAL | $2,956.63 |

* TERMS:
NET 15 DAYS FROM INVOICE DATE
T indicates SALES TAXABLE ITEM

P2SUL007142

CHI-INV (2/99)

**PLEASE RETURN COPY OF INVOICE WITH PAYMENT – THANK YOU**

P2SUL0071431

WASTE DRUM INVENTORY DATE: _____

| | DRUM # | PROFILE # | DESCRIPTION | DEPARTMENT | CHARGE # | |
|---|---|---|---|---|---|---|
| H | 0460 | CH189142 | Copper cleaner / chromic acid / 500 lbs | shop | | PL |
| H | 0461 | CH189142 | Copper cleaner / chromic Acid / 496 lbs | Shop | | PL |
| H | 0462 | CH189142 | Copper cleaner / chromic Acid / 408 lbs | Shop | | PL |
| H | 0463 | CH189142 | Copper cleaner / chromic Acid / 371 lbs | Shop | | PL |
| 1/4 | 0464 | CH189107 ✓ | Ceramic Powder | APPL LAB | | |
| 1/4 | 0465 | CH189144 | NYLON TURNINGS | Shop | | |
| 1/4 | 0466 | CH189144 | NYLON TURNINGS | Shop | | |
| 1/4 | 0467 | CH189144 | NYLON TURNINGS | model shop | | |
| 1/4 | 0468 | CH189111 | WASTE mixed OIL | Shop | | PL |
| 1/4 | 0469 | CH189111 | WASTE mixed OIL | Shop | | PL |

K54474-R5732 SAFETY-KLEEN 09/29/01 PAGE: 1
LOCATION: 211808 LDR NOTIFICATION FORM 09:04:47

GENERATOR NAME: SULZER METCO INC MANIFEST NO.: NYC G54185
OR SALES SERVICE NO.: 19059016

CUST#: 0002-1604-17

PURSUANT TO 40 CFR 268.7(A), I HEREBY NOTIFY THAT THIS SHIPMENT CONTAINS WASTE RESTRICTED UNDER 40 CFR PART 268 LAND DISPOSAL RESTRICTIONS (LDR).

A. GENERAL WASTE NOTIFICATION

LDR FORM LINE NO.: 1 MANIFEST PAGE/LINE# 01A SK PROFILE NO.: 0000
SKDOT#: 0000704

EPA WASTE CODES & LDR SUBCATEGORIES (IF ANY):
D001 LQ LIQUID >= 10% TOC
D018
D039
D040

TREATABILITY GROUP: NONWASTEWATERS

WASTE CONSITITUENT NOTIFICATION:
100 O-CRESOL
229 TETRACHLOROETHYLENE
237 TRICHLOROETHYLENE
247 ARSENIC
250 CADMIUM
255 LEAD
257 MERCURY - ALL OTHERS
260 SILVER
67 BENZENE

LDR FORM LINE NO.: 2 MANIFEST PAGE/LINE# 01B SK PROFILE NO.: 0000
SKDOT#: 0000801

EPA WASTE CODES & LDR SUBCATEGORIES (IF ANY):
D001 LQ LIQUID >= 10% TOC
D018
D039
D040

TREATABILITY GROUP: NONWASTEWATERS

WASTE CONSITITUENT NOTIFICATION:
100 O-CRESOL
229 TETRACHLOROETHYLENE
237 TRICHLOROETHYLENE
247 ARSENIC
250 CADMIUM
255 LEAD
257 MERCURY - ALL OTHERS
260 SILVER
67 BENZENE

NOTES

EXP NOTICE: THIS LDR EXPIRES ON 12/31/2001.

S. Leggio — Stephen Leggio — 10/25/01

GENERATOR'S AUTHORIZED SIGNATURE — NAME & TITLE (PRINTED OR TYPED) — DATE

Q#: 9332 LOC: 211808 TERR: 21 REF#: 19059016 SW: 0143

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFE

EPA
United States Environmental Protection Agency

# FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| TRI FACILITY ID NUMBER |
|---|
| |
| **Toxic Chemical, Category, or Generic Name** |
| |

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA Reporting Center
   P.O. Box 3348
   Merrifield, VA 22116-3348
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision ☐

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

For EPA use only

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 ____

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?

☐ Yes (Answer question 2.2; Attach substantiation forms) ☐ No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy: ☐ Sanitized ☐ Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official

Signature | Date Signed

**SECTION 4. FACILITY IDENTIFICATION**

4.1

Facility or Establishment Name | TRI Facility ID Number

Street Address

City | County

State | Zip Code

Mailing Address (if different from street address)

City

State | Zip Code

PUT LABEL HERE

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| |
| **Toxic Chemical, Category, or Generic Name** |
| |

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | | b. ☐ Part of a facility | | | |
| 4.3 | Technical Contact | Name | | | | Telephone Number (include area code) | |
| 4.4 | Public Contact | Name | | | | Telephone Number (include area code) | |
| 4.5 | SIC Code (4-digit) | a. | b. | c. | d. | e. | f. |
| 4.6 | Latitude and Longitude | Latitude | | | Longitude | | |
| | | Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| | | | | | | | |

| | | |
|---|---|---|
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a.<br>b. |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a.<br>b. |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a.<br>b. |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a.<br>b. |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company<br>☐ NA | |
| 5.2 | Parent Company's Dun & Bradstreet Number<br>☐ NA | (9 digits) |

EPA
United States Environmental Protection Agency

# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

TRI FACILITY ID NUMBER

Toxic Chemical, Category, or Generic Name

## SECTION 1. TOXIC CHEMICAL IDENTITY

**(Important: DO NOT complete this section if you complete Section 2 below.)**

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.) |

## SECTION 2. MIXTURE COMPONENT IDENTITY

**(Important: DO NOT complete this section if you complete Section 1 above.)**

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | |
|---|---|---|---|
| 3.1 | Manufacture the toxic chemical: | a. ☐ Produce<br>b. ☐ Import | If produce or import:<br>c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | Process the toxic chemical: | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. ☐ As an article component<br>d. ☐ Repackaging |
| 3.3 | Otherwise use the toxic chemical: | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☐ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | ☐ | (Enter two-digit code from instruction package.) |

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| |
| **Toxic Chemical, Category, or Generic Name** |
| |

## SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/ year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | ☐ NA | | | |
| 5.2 | Stack or point air emissions | ☐ NA | | | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name | | | | |
| 5.3.2 | Stream or Water Body Name | | | | |
| 5.3.3 | Stream or Water Body Name | | | | |
| 5.4 | Underground injections on-site | ☐ NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | ☐ NA | | | |
| 5.5.2 | Land treatment/ application farming | ☐ NA | | | |
| 5.5.3 | Surface impoundment | ☐ NA | | | |
| 5.5.4 | Other disposal | ☐ NA | | | |

☐ Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = 1
C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| |
| Toxic Chemical, Category, or Generic Name |
| |

### SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 Discharges to receiving streams or water bodies (enter one name per box) | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|
| 5.3.__ Stream or Water Body Name | | | |
| 5.3.__ Stream or Water Body Name | | | |
| 5.3.__ Stream or Water Body Name | | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

#### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| | |

**6.1.B POTW Name and Location Information**

| 6.1.B.__ POTW Name | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

**If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box ☐ and indicate which Part II, Sections 5.3/6.1 page this is, here. ☐**
**(example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = C = 500 - 999 pounds

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United States Environmental Protection Agency

# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER

Toxic Chemical, Category, or Generic Name

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. ___ Off-site EPA Identification Number (RCRA ID No.)

Off-Site Location Name

Street Address

City | County

State | Zip Code | Is location under control of reporting facility or parent company? ☐ Yes ☐ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. ___ Off-site EPA Identification Number (RCRA ID No.)

Off-Site Location Name

Street Address

City | County

State | Zip Code | Is location under control of reporting facility or parent company? ☐ Yes ☐ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box ☐ and indicate which Part II, Section 6.2 page this is, here. ☐ (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = C = 500 - 999 pounds

EPA
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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| |
| Toxic Chemical, Category, or Generic Name |
| |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

☐ **Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.**

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes ☐ No ☐ |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes ☐ No ☐ |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes ☐ No ☐ |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes ☐ No ☐ |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes ☐ No ☐ |

**If additional copies of page 7 are attached, indicate the total number of pages in this box ☐ and indicate which page 7 this is, here. ☐ (example: 1, 2, 3, etc.)**

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER

Toxic Chemical, Category, or Generic Name

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☐ **Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.**

**Energy Recovery Methods [enter 3-character code(s)]**

1 ☐ 2 ☐ 3 ☐ 4 ☐

## SECTION 7C. ON-SITE RECYCLING PROCESSES

☐ **Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.**

**Recycling Methods [enter 3-character code(s)]**

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| |
| Chemical, Category, or Generic Name |
| |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | *All quantity estimates can be reported using up to two significant figures.* | Column A 1991 (pounds/year) | Column B 1992 (pounds/year) | Column C 1993 (pounds/year) | Column D 1994 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released * | | | | |
| 8.2 | Quantity used for energy recovery on-site | | | | |
| 8.3 | Quantity used for energy recovery off-site | | | | |
| 8.4 | Quantity recycled on-site | | | | |
| 8.5 | Quantity recycled off-site | | | | |
| 8.6 | Quantity treated on-site | | | | |
| 8.7 | Quantity treated off-site | | | | |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | | | |
| 8.9 | Production ratio or activity index | | | | |

| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | |
|---|---|---|---|---|
| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
| 8.10.1 | | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | YES ☐ | NO ☐ |
|---|---|---|---|

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

Figure 2

## OPTIONAL SECTION 313 REPORTING THRESHOLD WORKSHET

Facility Name: _____ Date Worksheet Prepared: _____

Toxic Chemical or Chemical Category: _____ Prepared By: _____

Reporting Year: _____

**Step 1. Identify amounts of the toxic chemical manufactured, processed, or otherwise used.**

| Mixture Name or Other Identifier | Information Source | Percent by Weight | Total Weight (in lbs) | Amount of the Listed Toxic Chemical by Activity (in lbs.): | | |
|---|---|---|---|---|---|---|
| | | | | Manufactured | Processed | Otherwise Used |
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| Subtotal: | | | | (A) _____ lbs. | (B) _____ lbs. | (C) _____ lbs. |

**Step 2. Identify exempt forms of the toxic chemical that have been included in Step 1.**

| Mixture Name as Listed Above | Applicable Exemption | Note Fraction or Percent Exempt (if Applicable) | Exempt Amount of the Toxic Chemical from Above (in lbs.): | | |
|---|---|---|---|---|---|
| | | | Manufactured | Processed | Otherwise Used |
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5.<br>6. | | | | | |
| 7. | | | | | |
| Subtotal: | | | ($A_1$) _____ lbs. | ($B_1$) _____ lbs. | ($C_1$) _____ lbs. |

**Step 3. Calculate the amount subject to threshold:** ($A - A_1$) _____ lbs. ($B - B_1$) _____ lbs. ($C - C_1$) _____ lbs.

**Compare to thresholds for section 313 reporting.** 25,000 lbs. 25,000 lbs. 10,000 lbs.

**If any threshold is met, reporting is required for all activities. Do not submit this worksheet with Form R. Retain for your records.**

Following waste inventory disposal/relocation, parts cleaning stations and solutions will be removed from the site by Safety-Kleen, who maintains the solutions and stations under contract. Areas where cleaning/degreasing operations took place will be visually inspected for indications of leaks and spills. All machining equipment which include an oil storage sump will be drained of all oils and wiped down as to remove remaining traces of cutting oils and lubricants. Machining equipment will be relocated to an alternate Sulzer Metco facility and floor areas beneath and around each piece of equipment will be closely inspected for indications of leaks or cracks in the floor surface.

Wastewaters generated during cleaning operations will be stored in containers suitable to the wastewaters generated and according to hazardous material storage guidelines prior to off-site treatment/disposal. The wastewaters will be transported and disposed of off-site in accordance with federal, state and local regulations. It should be noted that no wastewaters will be discharged to the municipal sewer throughout the duration of closure.

Upon completion of decontamination, all equipment and dip tanks will be either disposed of off-site or reused by Sultzer Metco at a new facility, depending on their condition. Confirmatory sampling will be performed to assure the efficiency of closure.

## 2.2 Closure Performance Standard

This closure plan is designed to ensure that Sulzer Metco's waste generation and storage facilities will require no further maintenance or controls following closure of its hazardous and non-hazardous waste activities. The plan is intended to eliminate threats to human health and the environment. To ensure adequate closure, all wastes, process equipment, and structures will be decontaminated and disposed of off-site or retained for use at an alternate facility. Following decontamination, confirmatory rinse samples will be collected and analyzed to ensure that no

# Special Features of a Hako Asbestos Vacuum

## SELECTION

**Back Pack Asbestos Vac-** for hard to reach clean up jobs.

**4/6 Gallon Asbestos Vac-** portable with disposable paper collection bag. Wheel bracket optional.

**15 Gallon Asbestos Vac-** each unit includes front casters, 8″ rear wheels and carriage handle. All 15 gallon vacuum motor lid assemblies can be converted with adapter to a standard 30/55 gallon steel or fibre drum for wet or dry disposable recovery.

**Wet/Dry Asbestos Vac-** a versatile unit, all 15 gallon vacuums have wet/dry recovery capabilities with a 1 to 1 adapter and water shut-off.

**30/55 Gallon Asbestos Vac-** each unit is equipped with a painted tank, dolly cart and handle for easy maneuverability. Use a disposable 30 or 55 gallon drum and avoid rehandling toxic materials, resulting in labor savings.

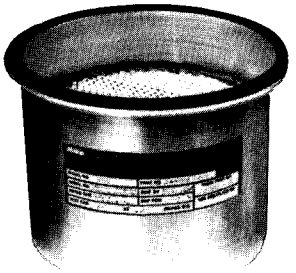
**Twin-Powered Asbestos Vac-** twin power vacuum on 55 gallon drum for bulk recovery with up to 3″ diameter hose.

**Air-Powered Asbestos Vac-** non-electric, no moving parts, for heavy commercial and industrial applications, may be used in potentially explosive conditions. Maintenance Free. Available in 15, 30 and 55 gallon sizes.

**Asbestos Brake Drum Assembly-** brake drum cleaner removes asbestos dust from brake assembly before mechanic changes brake shoes.

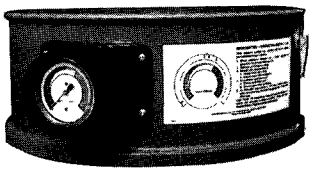
## EXCLUSIVE H.E.P.A. FILTER

Hako Minuteman's H.E.P.A. filters feature an exclusive high tensile strength surface membrane laminated to the filter media for increased durability. A seamless lightweight aluminum filter housing eliminates potential leak areas. These Hako H.E.P.A. filters are now more resistant to punctures, tears, leaks, abrasions, and damage from moisture. Plus, H.E.P.A. filters are mounted internally, protecting both the operator and the motor from contamination, and preventing damage to the H.E.P.A. filter when transporting machine.



## MANOMETER OPTION

Manometer adapter can be added to any Hako Minuteman H.E.P.A. operated vacuum with 15, 30, or 55 gallon drum capacities. A manometer measures the negative pressure within the vacuum tank unit and alerts the operator when the filters need service.



## APPLICATIONS

This vacuum is highly effective in filtering airborne pollutants such as:

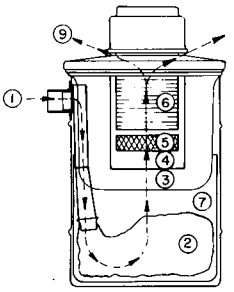
| | | |
|---|---|---|
| —aluminum | —fullers earth | —nickel |
| —arsenic | —fumigants | —nicotine |
| —arsenite | —fungicides | —pesticides |
| —barium | —graphite | —silica |
| —cement | —herbicides | —talc |
| —chromium | —insecticides | —tin |
| —coal | —iron | —titanium |
| —fertilizer | —lead arsenate | —vinyl chloride |
| —foundry dust | —mica | —wood |


**Hako Minuteman, Inc.**
**111 South Route 53, Addison, Illinois 60101**
**Phone (312) 627-6900**
**Telefax (312) 627-1130**

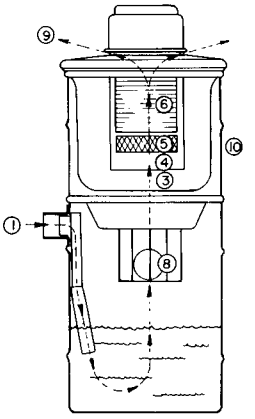

## OPERATION

Asbestos vacuum is equipped with disposable collector bag, inside plastic bag liner, disposable filter protector, cloth filter bag, impact pre-filter and H.E.P.A. filter. A total of 5 filter media for dry recovery and 4 filter media when used for wet recovery.

**Dry Recovery**



**Wet Recovery**



1. **Intake**
2. **Disposable Bag**
3. **Filter Protector**
4. **Cloth Filter**
5. **Impact Filter**
6. **H.E.P.A. Filter**
7. **Plastic Bag**
8. **Water Shut-Off**
9. **Clean Exhaust**
10. **1 to 1 Adapter**

## SPECIFICATIONS

| SPECIFICATIONS | Asbestos Back Pack X380-1 | Asbestos Vac 4/6 | Asbestos Vac 15 | Asbestos Vac 30/55 | Asbestos Vac X250-TP (2 Motor) | Asbestos Air Vac X703-15 | Asbestos Air Vac X703 30/55 |
|---|---|---|---|---|---|---|---|
| Static Lift (inches water) | 88 | 88 | 88 | 88 | 110 | 185 | 185 |
| Air Flow (C.F.M.) | 99 | 95 | 95 | 95 | 200 | 166 | 166 |
| Power (watts) | 930 | 930 | 930 | 930 | 2960 | — | — |
| Cord & Type Length | 16-3 / 50′ | 16-3 / 50′ | 16-3 / 50′ | 16-3 / 50′ | 16-3 / 50′ | — | — |
| Wet Capacity (gallons) | NA | NA | 6.3 | 20/40 | NA | 6.3 | 20/40 |
| Dry Capacity (cu. ft.) | .15 | .21/.62 | .82 | 4.36/7.15 | 7.15 | .82 | 4.36/7.15 |
| Filter Area Total Sq. In. | 900 | 1769 | 2226 | 4120 | 2175 | 4120 | 4120 |
| Overall Height | 24″ | 25″ | 36″ | 48″/54″ | 54″ | 33″ | 45″/51″ |
| Width | 10″ | 14″ | 21″ | 25″ | 25″ | 21″ | 25″ |
| Volts Standard / Optional | 115 / 220 | 115 / 220 | 115 / 220 | 115 / 220 | 115 / 220 | — | — |
| Wheels | — | Opt. | Yes | Yes | Yes | Yes | Yes |
| Wheel Size Front / Rear | — | 3″ / 6″ | 3″ / 8″ | 5″ / 5″ | 5″ / 5″ | 3″ / 8″ | 5″ / 5″ |
| Wet/Dry | — | — | Opt. | Opt. | — | Opt. | Opt. |
| Dry Only | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Weight (pounds) | 10 | 24 | 51 | 121/138 | 138 | 51 | 98/113 |
| Air Line | — | — | — | — | — | ½″ | ½″ |
| Air Pressure (P.S.I.) | — | — | — | — | — | 90 | 90 |
| Compressed Air Flow S.C.F.M. | — | — | — | — | — | 42 | 42 |

**Meets Federal Asbestos Pick-Up and Removal Requirements CM.1-C.24593LSH** H.E.P.A. (High Efficiency Particulate Air) Filters are 99.99% effective at 0.12 micrometers. H.E.P.A. Filter meets or exceeds the following military and government specifications:

Mil-F-51079A
Mil-F-510680 U/L Std. 586 listed
U/L Class 1 listed A.E.C.-Regulatory Guide #1.51


**Hako Minuteman Canada, Inc.**
**84 E Brunswick Blvd.**
**Dollard des Ormeaux, Quebec H9B 2C5**
**Telephone: (514) 683-3880**



#987821 5/86 VSM

# METCO *PERKIN ELMER*

## Material Safety Data Sheet

**METCO PERKIN-ELMER**

**1101 Prospect Avenue**
**PO Box 1006**
**Westbury, NY 11590-0201**
**Phone: (516) 334-1300**

**Product:** METCO 470AW

**MSDS No.:** METCO / 50-216
**Revision No.:** 2
**Revision Date:** May 27, 1993
**Original Date of Issue:** September 7, 1987

**EMERGENCY CONTACT: CHEMTREC 800-424-9300**
**CALLS OUTSIDE THE UNITED STATES: 202-483-7616**

## SECTION 1 MATERIAL IDENTIFICATION

**Trade/Material Name:** METCO 470AW

**Description:** Thermal Spray Metallic Wire

**Other Designation:** NICHROME WIRE

## SECTION II COMPOSITION AND TOXICITY

| Composition | % | CAS# | OSHA PEL | ACGIH TLV | Toxicity |
|---|---|---|---|---|---|
| Silicon | 1.5 | 7440-21-3 | 10 mg/m³ TWA total dust 5 mg/m³ TWA respirable | 10 mg/m³ TWA ** | |
| Chromium * | 16 | 7440-47-3 | 1 mg/m³ TWA | 0.5 mg/m³ TWA | |
| Nickel * | 62 | 7440-02-0 | 1 mg/m³ TWA | 1 mg/m³ TWA | |
| Iron | 20.5 | 7439-89-6 | 10 mg/m³ TWA total particulate $Fe_2O_3$ fume, as Fe | 5 mg/m³ TWA $Fe_2O_3$ fume, as Fe | |

* Indicates toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments & Reauthorization Act (SARA) & supplier notification requirements (40CFR Part 372).

** Contains no asbestos and <1% crystalline silica.

## SECTION III — PHYSICAL DATA

| | | | |
|---|---|---|---|
| **Boiling Point:** | N/A | **Specific Gravity ($H_2O$ = 1):** | 8.3 |
| **Vapor Pressure (mmHg):** | N/A | **Melting Point:** | 2450 - 2550 |
| **Vapor Density (Air=1):** | N/A | **Percentage Volatiles:** | N/A |
| **Solubility in water (%):** | Negative | **Evaporation Rate:** | N/A |
| **Appearance and Odor:** | Wire, no odor | **pH of Solution:** | N/A |

## SECTION IV — FIRE AND EXPLOSION HAZARD DATA

**Flash Point (Method Used):** NONE

**Flammable Limits:** **LEL %:** N/A **UEL%:** N/A

**Extinguishing Media:** $CO_2$ or dry chemical extinguisher, do not use water.

**Special Fire Fighting Procedures:** Treat as a metallic fire. Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing if involved in a fire.

**Unusual Fire and Explosive Hazards:** Moderate fire hazrd in the form of dust when exposed to flame. Silicon may ignite if exposed to flame or oxidizers, do not heat or expose to water. Chromium and iron may ignite if airborne in the presence of an ignition source.

## SECTION V — REACTIVITY DATA

**Material is stable. Hazardous polymerization will not occur.**

**Incompatibility (Materials to Avoid):** Chlorine, turpentine, oxidizers, acetylene, magnesium, active metals.

**Hazardous Decomposition Products:** Ozone and nitric oxide are formed by plasma flame (similar to welding fumes). This action is independent of metal wire.

## SECTION VI — HEALTH HAZARD DATA

| COMPONENTS | SUMMARY OF RISKS |
|---|---|
| SILICON: | No known toxicity associated with inhalation of this form. Under normal use/conditions silicon dioxide is formed. Inhalation of silicon dioxide may cause pneumoconiosis: silicosis. Silicosis is a pulmonary fibrosis characterized by generalized fibrotic changes on X-ray examination, shortness of breath, cough, decreased chest expansion, lessened capacity for work and increased susceptibility to tuberculosis.<br><br>Target Organ(s): Lungs. |
| CHROMIUM: | Hazard by inhalation and skin contact. Inhalation may cause pneumoconiosis and mucous membrane irritation or ulceration. Skin contact may cause dermatitis, sensitization or chrome lesions. A portion of metallic chromium may be converted during the thermal spray process to hexavalent chromium. Exposure to hexavalent chromium may cause bronchogenic, lung and stomach cancers.<br><br>Target Organ(s): Lungs, skin. |

## SECTION VI HEALTH HAZARD DATA CONTINUED

NICKEL: Hazard by inhalation and skin contact. Inhalation may cause cancers of the lung and nasal sinuses. Skin contact may cause dermatitis. Nickel is found to be a potential carcinogen in IARC Monographs. Nickel is listed in the NTP Annual Report on Carcinogens.

Target Organ(s): Respiratory tract, skin.

IRON: Hazard by inhalation. Inhalation may cause Siderosis (benign pneumoconiosis).

Target Organ(s): Lungs.

**Medical Conditions Which May be Aggravated by Contact:** Consult a physician.

**Primary Entry Route(s):** Inhalation, skin contact.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**Eye Contact:** Irritation.

**Skin Contact:** Possible dermatitis.

**Inhalation:** Irritation, pneumoconiosis.

**Ingestion:** Possible irritation.

### FIRST AID

**Eye Contact:** Flush eye with sufficient amounts of water. If irritation persists, consult a physician.

**Skin Contact:** Wash with soap and water.

**Inhalation:** Expose to fresh air. Consult a physician if irritation or respiratory distress persists.

**Ingestion:** Consult a physician.

## SECTION VII SPILL, LEAK AND DISPOSAL PROCEDURES

**Spill/Leak Procedures:** Not applicable to wire.

**Waste Management and Disposal:** Empty product containers, product waste and cleaning media should be stored and disposed of according to the appropriate local, state and federal regulatory guidelines.

## SECTION VIII SPECIAL PROTECTION INFORMATION

### PERSONAL PROTECTIVE EQUIPMENT

**Goggles:** The following lens shades are recommended for the process indicated. Combustion spraying shade #5, plasma spraying up to 40 kW shade #9, 40-60 kW shade #10 and greater than 60 kW shade #11. Goggles may be appropriate during other phases of product handling.

## SECTION VIII SPECIAL PROTECTION INFORMATION CONTINUED

**Gloves:** Aluminized gloves are to be worn during the plasma spray process. Rubber or other appropriate gloves may be worn as necessary during other phases of product handling to avoid excessive skin contact.

**Respirator:** A respirator approved by NIOSH with filter cartridges approved for dust/fumes/mists should be worn at all times during the thermal spray process to protect the operator from exposure to dust and fumes. Respirators may also be worn when product handling generates dust.

**Clothing/Equipment:** Ear protection must be worn when the operator is subjected to excessive noise levels. (Refer to the appropriate regulatory guidelines.) An aluminized apron is to be worn during the plasma spray process. Other appropriate protective clothing may be worn as necessary during product handling to avoid excessive contact with the skin.

### WORKPLACE CONSIDERATIONS

**Ventilation:** Product should be used with the appropriate local exhaust ventilation provided.

**Safety Stations:** Eye wash station(s) is/are recommended.

**Other:** Wash facilities are recommended.

## SECTION IX HANDLING AND STORAGE PRECAUTIONS

**Storage/Handling:** Store away from incompatibles. Store product containers in a well-ventilated, clean, cool and dry area. Store in a manner to minimize punctures and breakage of containers.

**Other Precautions:** Avoid ingestion, inhalation and excessive skin contact. Avoid contact of powder with water and oxidizers.

*While this information is furnished in good faith, no guaranty is made as to accuracy. This material is for the Thermal Spraying Process, and relevant instructions should be consulted before use. The user assumes all risk in connection with the use of this material. METCO PERKIN-ELMER shall in no event be liable for special, incidental or consequential damages in connection with this information, or for any damage or injury caused by this material if used for any other purpose than the Thermal Spray Process, or if proper safety and health practices are not followed.*

**USEPA EPCRA Section 313 Form R**
**1999 Calendar Year Back up Data**

Prepared on 08-29-01

Sulzer Metco (US) Inc.
1101 Prospect Avenue
Westbury, NY 11590

TRI facility # 11590-PRKNL-1101P
EPA ID # NYD131318651
D&B # 011272254
Parent Company D&B # 001826957

**Exemptions to TRI 1999 Reporting requirements**

The Prospect Avenue facility consists of a machine shop, QA/ QC laboratories, and a thermal spray laboratory. The machine shop was operational as of 07-1999. The remainder of the facility consists of offices, warehouse, shipping and receiving, maintenance, and equipment rooms. The QA / QC laboratory performs testing with small quantities of section 313 acids. < 100lbs year. This QA / QC laboratory is considered exempt under the laboratories activities exemption.

The thermal spray laboratory conducts research and development of thermal spray materials and equipment. Pilot scale operations of section 313 chemicals are **not** conducted in this laboratory. Therefore the lab is considered exempt under the laboratories activities exemption.

**Consideration of Reportable Section 313 Chemicals**

The prospect facility operates a full machine shop and machines (processes) Brass, Bronze, Aluminum, Stainless steel, and Copper bar and plate stock. The operation utilizes mineral oil as machine lubricant. Various parts washers and vapor degreaser tanks are located throughout the facility. The tanks use either Safety Kleen 105 or Actrel 3349L. These materials are both petroleum hydrocarbons.

Of the various materials used or processed in the machine shop the following materials are Section 313 Chemicals subject to consideration.

- **Actrel 3349:** 100% CAS 64742-48-9. Exempt from consideration.

- **Safety Kleen 105:** 99-100% CAS 64742-48-9, 0-0.2% CAS 127-18-4 (Tetrachloroethene). Tetrachloroetene is a Section 313 chemical above the De Minimis concentration of 0.1% and must be considered.

  7,217 lb. of Safety Kleen 105 (otherwise used) yields 14.43 lb. of CAS 127-18-4 (Tetrachloroethene) was other wise used in CY 1999. 14.43 lb. < 10,000 threshold for reporting.

- **Brass:** 60% CAS 7440-50-8 Copper, 39.2% CAS 7440-66-6 Zinc. Both Copper and Zinc are Section 313 chemicals and must be considered.

  19,276 lb. processed, 60% CAS 7440-50-8 Copper, 39.2% CAS 7440-66-6 Zinc yields 11,565 lb. of Copper, and 7,556 lb. of Zinc. These totals will be added to the reporting thresholds of Copper and Zinc.

- **Aluminum:** 100% CAS 7429-90-5. Aluminum is a Section 313 chemical and must be considered.

  9,154 lb. of Aluminum was processed in CY 1999. 9,154 lb. < 25,000 lb. threshold for reporting.

- **Stainless Steel:** 17-25% CAS 7440-47-3 Chromium, 8-25% CAS 7440-02-0 Nickel. Both Chromium and Nickel are Section 313 chemicals and must be considered.

  5,582 lb. of stainless steel was processed in CY 1999 yielding 1,395 lb. of Chromium, and 1,395 lb. of Zinc. These totals will be added to the reporting thresholds of Chromium and Zinc.

- **Copper:** 100% CAS 7440-50-8 Copper. Copper is a Section 313 chemical and must be considered.

  50,479 lb. of Copper was processed in CY 1999. Quantities of Copper from Brass and Brass processed in CY 1999 when added to the quantity of Copper yield a total of 62,044 lb. of Copper processed in CY 1999. 62,044 lb. > 25,000 lb. reporting threshold.

- **Bronze:** 90% CAS 7440-50-8 Copper, 10% CAS 7440-66-6 Zinc. Both Copper and Zinc are Section 313 Chemicals and must be considered.

  Bronze was not processed during CY 1999

- **Chromic Acid Cleaning Solution:** 65% CAS N090 Chromium Compounds Chromium Compounds are Section 313 chemicals and must be considered.

  411 lb. of Chromic acid solution were otherwise used in CY 1999 yielding 267.15 lb. of Chromium compounds. 267.15 lb. < 10,000 lb. reporting threshold.

- **Zinc:** CAS 7440-66-6. Zinc is contained in Brass. 1,395 lb. of Zinc were processed in CY 1999. 1,395 lb. < 25,000 lb. reporting threshold for reporting.

- **Nickel:** CAS 7440-02-0. Nickel is contained in Stainless Steel. 1,395 lb. of Nickel was processed in CY 1999. 1,395 lb. < 25,000 lb. reporting threshold for reporting.

**Reportable Section 313 Chemicals**

- **Copper:** CAS 7440-50-8. 50,479 lb. of Copper was processed in CY 1999. Quantities of Copper from Brass and Brass processed in CY 1999 when added to the quantity of Copper yield a total of 62,044 lb. of Copper processed in CY 1999. 62,044 lb. > 25,000 lb. reporting threshold.

**Transfers Off Site**

Recyling: 25,125 lb. of Copper and 5,800 lb. of Brass were recycled in CY 1999.

Of the 6,075 lb. of Brass recycled 3,645 lb. were Copper (5,800 lb. x 0.60 = 3,480 lb.)

25,125 lb. + 3,480 lb. = 28,605 lb. total copper recycled in CY 1999.

The recycling center used for all scrap metal recycling was Gershow Recycling Corp. 71 Peconic Avenue, Medford NY 11763.

**Production Ratio**

The production ratio as reported by the Sulzer Metco accounting department for machinery and equipment sales for the period of 1998-1999 is 1.17%.

**TRI 1999 Worksheet Prospect Avenue facility**
**Chemical and % Constituents**
**Prepared 08-29-01**

| | CAS N090 Chromium Compounds | CAS 7440-50-8 Copper | CAS 7440-66-6 Zinc | CAS 7440-47-3 Chromium | CAS 7440-02-0 Nickel | CAS 127-18-4 Tetrachloroethene | CAS 7429-90-5 Aluminum |
|---|---|---|---|---|---|---|---|
| **Safety Kleen 105**<br>7,217 lb. otherwise used<br>0-0.2% CAS 127-18-4 (Tetrachloroethene) | | | | | | 14.43 lb. | |
| **Brass**<br>19,276.35 lb. processed<br>60% CAS 7440-50-8 Copper,<br>39.2% CAS 7440-66-6 Zinc | | 11,565 lb. | 7,556 lb. | | | | |
| **Aluminum**<br>9,154 lb. processed<br>100% CAS 7429-90-5. | | | | | | | 9,154 lb. |
| **Stainless Steel**<br>5,582 lb. processed<br>17-25% CAS 7440-47-3 Chromium,<br>8-25% CAS 7440-02-0 Nickel | | | | 1,395 lb. | 1,395 lb. | | |
| **Copper**<br>50,479 lb. processed<br>100% CAS 7440-50-8 Copper | | 50,479 lb. | | | | | |
| **Bronze**<br>0 lb. processed<br>90% CAS 7440-50-8 Copper,<br>10% CAS 7440-66-6 Zinc | | | | | | | |
| **Chromic Acid Cleaning Solution**<br>411 lb. otherwise used<br>65% CAS N090 Chromium Compounds | 267.15 lb. | | | | | | |
| **Totals** | 267.15 lb. | 62,044 lb. | 7,556 lb. | 1,395 lb. | 1,395 lb. | 14.43 lb. | 9,154 lb. |

**1999 USAGES BY SULZER METCO (US)**

| MATERIAL | CUBIC FEET | LBS/CUBIC FT | TOTAL WEIGHT IN LBS |
|---|---|---|---|
| ALUM | 54.8 | 167 | 9,154 |
| BRASS | 36.4 | 530 | 19,276 |
| COPPER | 71.0 | 558 | 39,644 |
| COPPER/L | 19.4 | 558 | 10,835 |
| STAINLESS | 11.6 | 483 | 5,582 |
| STEEL | 4.0 | 491 | 1,952 |

Call - 516 - 424 - 0096

or

Beef w/ Questions

800 - 980 - 6256

Form Approved OMB Number: 2070-0093
Approval Expires: 01/31/2003



*(IMPORTANT: Type or print; read instructions before completing form)*

# EPA FORM R

TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

United States Environmental Protection Agency

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

**WHERE TO SEND COMPLETED FORMS:** 1. EPCRA Reporting Center, P.O Box 3348, Merrifield, VA 22116-3348, ATTN: TOXIC CHEMICAL RELEASE INVENTORY 2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

### SECTION 1. REPORTING YEAR 1999

### SECTION 2. TRADE SECRET INFORMATION

**2.1** Are you claiming the toxic chemical identified on page 2 trade secret?
[ ] Yes (Answer question 2.2; Attach substantiation forms) [X] No (Do not answer 2.2; Go to Section 3)

**2.2** Is this copy [ ] Sanitized [ ] Unsanitized (Answer only if "YES" in 2.1)

### SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

| Name and official title of owner/operator or senior management official: | Signature: | Date Signed: |
|---|---|---|
| JOSEPH REARDON MANAGER OF GLOBAL QUALITY | | 08/17/2001 |

### SECTION 4. FACILITY IDENTIFICATION

**4.1** TRI Facility ID Number: 11590PRKNL1101P

Facility or Establishment Name: SULZER METCO (US), INC.

Facility or Establishment Name or Mailing Address(if different from street address):

Street: 1101 PROSPECT AVENUE

Mailing Address:

City/County/State/Zip Code: WESTBURY NASSAU NY 11590-

City/State/Zip Code:

Country (Non-US):

**4.2** This report contains information for: (Important : check a or b; check c or d if applicable) a. [X] An entire facility b. [ ] Part of a facility c. [ ] A Federal facility d. [ ] GOCO

| | | |
|---|---|---|
| **4.3** | Technical Contact Name: MICHAEL LYDON | Telephone Number (include area code): (516) 338-2337 |
| **4.4** | Public Contact Name: JOSEPH REARDON | Telephone Number (include area code): (516) 338-2316 |

**4.5** SIC Code (s) (4 digits)

| Primary | | | | | |
|---|---|---|---|---|---|
| a. 3542 | b. | c. | d. | e. | f. |

**4.6** Latitude / Longitude

| Latitude Degrees | Latitude Minutes | Latitude Seconds | Longitude Degrees | Longitude Minutes | Longitude Seconds |
|---|---|---|---|---|---|
| 40 | 45 | 50 | 073 | 33 | 10 |

| 4.7 Dun & Bradstreet Number(s) (9 digits) | 4.8 EPA Identification Number (RCRA I.D. No.) (12 characters) | 4.9 Facility NPDES Permit Number(s) (9 characters) | 4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) |
|---|---|---|---|
| a. 011272254 | a. NYD131318651 | a. NA | a. NA |
| b. | b. | b. | b. |

### SECTION 5. PARENT COMPANY INFORMATION

| | | | |
|---|---|---|---|
| **5.1** | Name of Parent Company | NA [ ] | SULZER INC. |
| **5.2** | Parent Company's Dun & Bradstreet Number | NA [ ] | 001826957 |

# EPA FORM R
# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category or Generic Name |
| COPPER |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

**1.1** CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)
7440508

**1.2** Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)
COPPER

**1.3** Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "yes". Generic Name must be structurally descriptive.)
NA

**1.4 Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.**
(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA [X] | | | | | | | | | | | | | | | | | |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

**2.1** Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.)
NA

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

**3.1 Manufacture the toxic chemical:**
- a. [ ] Produce
- b. [ ] Import

If produce or import:
- c. [ ] For on-site use/processing
- d. [ ] For sale/distribution
- e. [ ] As a byproduct
- f. [ ] As an impurity

**3.2 Process the toxic chemical:**
- a. [ ] As a reactant
- b. [X] As a formulation component
- c. [ ] As an article component
- d. [ ] Repackaging
- e. [ ] As an impurity

**3.3 Otherwise use the toxic chemical:**
- a. [ ] As a chemical processing aid
- b. [ ] As a manufacturing aid
- c. [ ] Ancillary or other use

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

**4.1** 03 (Enter two-digit code from instruction package.)

## SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

| | | | A. Total Release (pounds/year*) (Enter range code or estimate**) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | NA [X] | NA | | |
| 5.2 | Stack or point air emissions | NA [X] | NA | | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| | Stream or Water Body Name | | | | |
| 5.3.1 | NA | | | | |
| 5.3.2 | | | | | |
| 5.3.3 | | | | | |

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1 - 10 pounds; B= 11 - 499 pounds; C= 500 - 999 pounds.

# EPA FORM R
# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category or Generic Name |
| COPPER |

If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box: 1

and indicate the Part II, Section 5.3 page number in this box: 1 (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A= 1 - 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category or Generic Name |
| COPPER |

### SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

| | | NA | A. Total Release (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) |
|---|---|---|---|---|
| 5.4.1 | Underground injection onsite to Class I Wells | X | NA | |
| 5.4.2 | Underground injection onsite to Class II-V Wells | X | NA | |
| 5.5 | Disposal to land onsite | | | |
| 5.5.1A | RCRA Subtitle C landfills | X | NA | |
| 5.5.1B | Other landfills | X | NA | |
| 5.5.2 | Land treatment/application farming | X | NA | |
| 5.5.3 | Surface Impoundment | X | NA | |
| 5.5.4 | Other disposal | X | NA | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| NA | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.1.B.1 | POTW Name | NA | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | - |
| 6.1.B.2 | POTW Name | | | | | | |
| POTW Address | | | | | | | |
| City | | State | | County | | Zip | |

**If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box** 1 **and indicate the Part II, Section 6.1 page number in this box** 1 **(example: 1,2,3, etc.)**

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

| 6.2.1 Off-Site EPA Identification Number (RCRA ID No.) | NA |
|---|---|
| Off-Site Location Name | NA |
| Off-Site Address | |

| City | | State | | County | | Zip | | Country (Non-US) | |
|---|---|---|---|---|---|---|---|---|---|

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds.

| EPA FORM R<br>PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number<br>11590PRKNL1101P<br>Toxic Chemical, Category or Generic Name<br>COPPER |
|---|---|

Is location under control of reporting facility or parent company? ☐ Yes ☐ No

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category or Generic Name |
| COPPER |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 25125 | 1. M | 1. M93 |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

6.2.2 Off-Site EPA Identification Number (RCRA ID No.)

Off-Site location Name

Off-Site Address

City | State | County | Zip | Country (Non-US)

Is location under control of reporting facility or parent company? ☐ Yes ☐ No

| A. Total Transfers (pounds/year*) (enter range code** or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. |
| 2. | 2. | 2. |
| 3. | 3. | 3. |
| 4. | 4. | 4. |

### SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

☒ Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data ? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| NA | | | % | Yes ☐ No ☐ |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes ☐ No ☐ |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes ☐ No ☐ |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes ☐ No ☐ |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes ☐ No ☐ |

**If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box** 1

**and indicate the Part II. Section 6.2/7A page number in this box :** 1 **(example: 1.2.3. etc)**

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds.

| EPA FORM R<br>PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED) | TRI Facility ID Number |
|---|---|
| | 11590PRKNL1101P |
| | Toxic Chemical, Category or Generic Name |
| | COPPER |

* For Dioxin or Dioxin-like compounds, report in grams/year



** Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds.

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI Facility ID Number |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category or Generic Name |
| COPPER |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[X] Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

1 NA | 2 | 3 | 4

## SECTION 7C. ON-SITE RECYCLING PROCESSES

[X] Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

1. NA | 2. | 3. | 4. | 5.

6. | 7. | 8. | 9. | 10.

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | | Column A Prior Year (pounds/year*) | Column B Current Reporting Year (pounds/year*) | Column C Following Year (pounds/year*) | Column D Second Following Year (pounds/year*) |
|---|---|---|---|---|---|
| 8.1 | Quantity released *** | 24000 | 25125 | 27395 | 27395 |
| 8.2 | Quantity used for energy recovery onsite | NA | NA | NA | NA |
| 8.3 | Quantity used for energy recovery offsite | NA | NA | NA | NA |
| 8.4 | Quantity recycled onsite | NA | NA | NA | NA |
| 8.5 | Quantity recycled offsite | 24000 | 25125 | 27395 | 27395 |
| 8.6 | Quantity treated onsite | NA | NA | NA | NA |
| 8.7 | Quantity treated offsite | NA | NA | NA | NA |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | | 0 | |
| 8.9 | Production ratio or activity index | | | 0000001.17 | |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | NA | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

8.11 Is additional information on source reduction, recycling, or pollution control activities included with this report ? (Check one box)

YES [ ] NO [X]

EPA Form 9350-1 (Rev. 01/2001) - Previous editions are obsolete.

* For Dioxin or Dioxin-like compounds, report in grams/year

*** Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated onsite.

EPA # NYD131318651
Prospect Avenue Hazardous Waste Year 1999

| Date | Manifest # | Shipping Name | Profile # | Quantity | Units | Specific Gravity | Lb. | Treatment R | Treatment L | Treatment B |
|---|---|---|---|---|---|---|---|---|---|---|
| 01/06/1999 | NYC5513894 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 5 | G | 1 | 42 | 0.02 | | |
| 01/06/1999 | NYC5513894 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 8 | G | 1 | 67 | 0.03 | | |
| 01/06/1999 | NYC5513883 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 9 | G | 1 | 75 | 0.19 | | |
| 03/04/1999 | NYC5560895 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 5 | G | 1 | 42 | 0.02 | | |
| 03/04/1999 | NYC5560885 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 9 | G | 1 | 75 | 0.19 | | |
| 03/22/1999 | MDC0797374 | Hazardous Waste Solid (Chromium) | 6SMG-0017 | 630 | P | 1 | 630 | | 0.31 | |
| 04/24/1999 | NYC5607540 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 5 | G | 1 | 42 | 0.02 | | |
| 04/24/1999 | NYC5607540 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 9 | G | 1 | 67 | 0.19 | | |
| 04/24/1999 | NYC5607538 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 10 | G | 1 | 84 | 0.04 | | |
| 05/05/1999 | MDC0798397 | Hazardous waste solid, chromium | 6SMG-002 | 400 | P | 1 | 400 | | | 0.2 |
| 05/05/1999 | MDC0798397 | Waste Flammable Liquid, NOS (mineral spirits, isopropano) | Lab Pack | 150 | P | 1 | 150 | | | 0.07 |
| 05/05/1999 | MDC0798397 | Waste flammable liquid, toxic, NOS (mineral spirits, phenol) | Lab Pack | 150 | P | 1 | 150 | | | 0.07 |
| 05/05/1999 | MDC0798397 | Waste flammable liquid, toxic, NOS (mineral spirits, phenol) | Lab Pack | 50 | P | 1 | 50 | | | 0.02 |
| 05/05/1999 | MDC0798397 | Waste organic peroxide type D liquid, (methyl ethyl ketone peroxide) | Lab Pack | 10 | P | 1 | 10 | | | 0 |
| 05/05/1999 | MDC0798397 | Waste Aerosols (acetone xylene) | Lab Pack | 5 | P | 1 | 5 | | | 0 |
| 05/05/1999 | MDC0798397 | Waste Isocyanates flammable toxic NOS (Alkoxyapate naptha diphenyl methan | Lab Pack | 50 | P | 1 | 50 | | | 0.02 |
| 05/05/1999 | MDC0798397 | Waste potassium nitrate | Lab Pack | 5 | P | 1 | 5 | | | 0 |
| 05/05/1999 | MDC0798397 | Waste corrosive liquid basic organic NOS (potassium hydroxide T-phenyl amine | Lab Pack | 50 | P | 1 | 50 | | | 0.02 |
| 05/05/1999 | MDC0798397 | Waste toxic liquids organic NOS (Trichloroethylene methylene chloride) | Lab Pack | 50 | P | 1 | 50 | | | 0.02 |
| 05/05/1999 | MDC0798397 | Waste corrosive liquid acidic organic NOS phosphoric sulfuric acid) | Lab Pack | 50 | P | 1 | 50 | | | 0.02 |
| 05/26/1999 | MDC0799215 | Hazardous waste solid NOS (chromium) | 6SMG -002 | 1600 | P | 1 | 1600 | | 0.8 | |
| 05/26/1999 | MDC0799215 | Waste hydroflouric acid | Lab Pack | 5 | P | 1 | 5 | | | 0 |
| 05/26/1999 | MDC0799215 | Potassium hydroxide solid | Lab Pack | 5 | P | 1 | 5 | | | 0 |
| 05/26/1999 | MDC0799215 | Waste oxidizing liquid NOS | Lab Pack | 5 | P | 1 | 5 | | | 0 |
| 05/26/1999 | MDC0799215 | Waste chromic acid solution | Lab Pack | 5 | P | 1 | 5 | | | 0 |
| 05/26/1999 | MDC0799215 | Non regulated material | Lab Pack | 5 | P | 1 | 5 | | | 0 |
| 06/11/1999 | NYC5123553 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 43 | G | 1 | 362 | 0.18 | | |
| 06/11/1999 | NYC5123553 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 38 | G | 1 | 320 | 0.16 | | |
| 06/25/1999 | NYC5672812 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 5 | G | 1 | 42 | 0.02 | | |
| 06/30/1999 | NYC5124184 | Hazardous waste liquid NOS (aqueous parts washer solution) | NA | 32 | G | 1 | 269 | | 0.13 | |
| 07/06/1999 | NYC5682848 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 54 | G | 6.7lbs/G | 361.18 | 0.22 | | |
| 07/14/1999 | NYC5682846 | Hazardous waste liquid NOS (aqueous parts washer solution) | NA | 23 | G | 1 | 191 | | 0.09 | |
| 07/26/1999 | NYC5856210 | Hazardous waste liquid NOS (aqueous parts washer solution) | NA | 21 | G | 1 | 175 | | 0.08 | |
| 08/03/1999 | NYC5688898 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 41 | G | 6.7lbs/G | 274 | 0.13 | | |
| 08/03/1999 | NYC5688898 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 15 | G | 6.7lbs/G | 100 | 0.05 | | |
| 08/03/1999 | NYC5688900 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 53 | G | 6.7lbs/G | 355 | 0.17 | | |
| 08/03/1999 | NYC5688900 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 29 | G | 6.7lbs/G | 194 | 0.09 | | |
| 08/19/1999 | NYC5875784 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 5 | G | 6.7lbs/G | 33 | 0.01 | | |
| 09/01/1999 | NYC5853985 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 48 | G | 6.7lbs/G | 321 | 0.16 | | |
| 09/01/1999 | NYC5853985 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 32 | G | 6.7lbs/G | 214 | 0.1 | | |
| 09/01/1999 | NYC5853985 | Hazardous waste liquid NOS (aqueous parts washer solution) | NA | 14 | G | 1 | 116 | | 0.05 | |
| 09/01/1999 | NYC5853963 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 45 | G | 6.7lbs/G | 301 | 0.15 | | |
| 09/27/1999 | NYC5936218 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 39 | G | 6.7lbs/G | 261 | 0.13 | | |
| 09/27/1999 | NYC5936218 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 14 | G | 6.7lbs/G | 93 | 0.04 | | |
| 09/27/1999 | NYC5936220 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 51 | G | 6.7lbs/G | 341 | 0.17 | | |
| 09/27/1999 | NYC5936220 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 29 | G | 6.7lbs/G | 194 | 0.09 | | |
| 10/14/1999 | NYC5928941 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 5 | G | 6.7lbs/G | 361.18 | 0.22 | | |
| 10/25/1999 | NYC5963174 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 39 | G | 6.7lbs/G | 261.3 | 0.13 | | |
| 10/25/1999 | NYC5963196 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 45 | G | 6.7lbs/G | 301.5 | 0.15 | | |
| 10/25/1999 | NYC5963196 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 32 | G | 6.7lbs/G | 214.4 | 0.1 | | |
| 11/22/1999 | NYC5990310 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 40 | G | 6.7lbs/G | 268 | 0.13 | | |
| 11/22/1999 | NYC5990310 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 15 | G | 6.7lbs/G | 100.5 | 0.05 | | |
| 11/22/1999 | NYC5990321 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 46 | G | 6.7lbs/G | 308.2 | 0.15 | | |
| 11/22/1999 | NYC5990321 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 28 | G | 6.7lbs/G | 187.6 | 0.09 | | |
| 12/08/1999 | MDC0773348 | Hazardous Waste Solid, NOS, (Chromium) | 6SMG-002 | 780 | P | NA | 780 | | 0.39 | |
| 12/08/1999 | MDC0773348 | Waste Chromic Acid Solution | 6SMU-006 | 411 | G | NA | 411 | | 0.2 | |
| 12/08/1998 | NYC6006374 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 5 | G | 6.7lbs/G | 33.5 | 0.01 | | |
| 12/20/1999 | NYC5941890 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 53 | G | 6.7lbs/G | 355.1 | 0.17 | | |
| 12/20/1999 | NYC5941912 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 55 | G | 6.7lbs/G | 368.5 | 0.18 | | |
| 12/20/1999 | NYC5941912 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG II | NA | 30 | G | 6.7lbs/G | 201 | 0.1 | | |
| | | | | | | | | 4.05 | | |
| | | | | | | | 12387.96 | | 2.05 | |
| | | | | | | | | | | 0.44 |

MAY - 2595 lbs
HAZ WASTE.
- MUST fill out REPORT.

7217 lbs

X = SAFETY KLEENIDS [redacted] lbs 3.9T

X = AQUEOUS PARTS WASHER . 751lb .37T

T [redacted] = METAL POWDER 3410lb 1.7DT

6.19TONS

[redacted] LABPACK 650lb. 0.325 T

[redacted] CHROMIC ACID SOLUTION. 411lb 0.20T

GENERATOR: 2118081642 SULZER METCO INC 1101 PROSPECT AVE WESTBURY NY 11590
NYD131318651
SAME

FACILITY NAME/ADDRESS SK ID/FED EPA ID/STATE EPA ID

SAFETY-KLEEN SYSTEMS, INC. 2-118-08
80 SEABRO NYD000708198

NO AMITYVILLE, NY 11701

| SVC DATE | SVC DOC / MANIFEST DOC | TRANSPRTR ID | WSTE CDS | CNT TYP | #OF CNT | U M | QUANTITY | HDL CD | SK-DOT | WASTE DESCRIPTION | CD | TRACKING NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/11/99 | 000073 NYC5123553 | ILD984908202 | D001 D018 | DM | 5 | P | 288.1 | R | 0000704 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (ERG#128)6.7#/GAL (D001,D018,D039,D040) ORG: SRC: A04 FRM: B203 G/F SYS: / IL M/W CD: / | | NY 097304686 |
| 06/11/99 | 000073 NYC5123553 | ILD984908202 | D001 D018 | DM | 3 | P | 254.6 | R | 0000801 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D018)ERG#128 (6.7#/GL)(D001,D039,D040) ORG: 4 SRC: A04 FRM: B203 G/F SYS: / IL M/W CD: / | RQ | NY 097304686 |
| 06/30/99 | 000068 NYC5124194 | ILD984908202 | D039 | DM | 2 | P | 265.6 | T | 0010070 | HAZARDOUS WASTE, LIQUID, N.O.S. 9 NA3082 PG III (D039)(ERG#171) AQUEOUS PARTS WASHER SOLUTION (8.3#/GAL ORG: SRC: A04 FRM: B101 G/F SYS: / IL M/W CD: / | | NY 097409653 |
| 07/06/99 | 000041 NYC5682846 | ILD984908202 | D001 D018 | DM | 6 | P | 361.8 | R | 0000704 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (ERG#128)6.7#/GAL (D001,D018,D039,D040) ORG: SRC: A04 FRM: B203 G/F SYS: / IL M/W CD: / | | NY 097354724 |
| 07/06/99 | 000041 NYC5682846 | ILD984908202 | D001 D018 | DM | 2 | P | 201.0 | R | 0000801 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D018)ERG#128 (6.7#/GL)(D001,D039,D040) ORG: 4 SRC: A04 FRM: B203 G/F SYS: / IL M/W CD: / | RQ | NY 097354724 |
| 07/14/99 | 000017 NYC5846174 | ILD984908202 | D039 | DM | 1 | P | 190.9 | T | 0010070 | HAZARDOUS WASTE, LIQUID, N.O.S. 9 NA3082 PG III (D039)(ERG#171) AQUEOUS PARTS WASHER SOLUTION (8.3#/GAL ORG: SRC: A04 FRM: B101 G/F SYS: / IL M/W CD: / | | NY 097389991 |
| 07/26/99 | 000006 NYC5856210 | ILD984908202 | D039 | DM | 1 | P | 174.3 | T | 0010070 | HAZARDOUS WASTE, LIQUID, N.O.S. 9 NA3082 PG III (D039)(ERG#171) AQUEOUS PARTS WASHER SOLUTION (8.3#/GAL ORG: SRC: A04 FRM: B101 G/F SYS: / IL M/W CD: / | | NY 097424174 |
| 08/03/99 | 000003 NYC5688900 | ILD984908202 | D001 D018 | DM | 6 | P | 355.1 | R | 0000704 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (ERG#128)6.7#/GAL (D001,D018,D039,D040) ORG: SRC: A04 FRM: B203 G/F SYS: / IL M/W CD: / | | NY 097487922 |
| 08/03/99 | 000003 NYC5688900 | ILD984908202 | D001 D018 | DM | 2 | P | 194.3 | R | 0000801 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII | RQ | NY 097487922 |

GENERATOR: 2118081642 SULZER METCO INC 1101 PROSPECT AVE WESTBURY NY 11590
NYD131318651
SAME

| FACILITY NAME/ADDRESS | SK ID/FED EPA ID/STATE EPA ID | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | (D018)ERG#128 (6.7#/GL)(D001,D039,D040)<br>ORG: 4 SRC: A04 FRM: B203<br>G/F SYS: / IL M/W CD: / | |
| 09/01/99 | 000080<br>NYC5883985 | ILD984908202 | D001 DM<br>D018 | 6 P | 321.6 R | 0000704 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (ERG#128)6.7#/GAL (D001,D018,D039,D040)<br>ORG: SRC: A04 FRM: B203<br>G/F SYS: / IL M/W CD: / | NY 097622117 |
| 09/01/99 | 000080<br>NYC5883985 | ILD984908202 | D001 DM<br>D018 | 2 P | 214.4 R | 0000801 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII RQ (D018)ERG#128 (6.7#/GL)(D001,D039,D040)<br>ORG: 4 SRC: A04 FRM: B203<br>G/F SYS: / IL M/W CD: / | NY 097622117 |
| 09/01/99 | 000080<br>NYC5883985 | ILD984908202 | D039 DM | 1 P | 116.2 T | 0010070 | HAZARDOUS WASTE, LIQUID, N.O.S. 9 NA3082 PG III (D039)(ERG#171) AQUEOUS PARTS WASHER SOLUTION (8.3#/GAL<br>ORG: SRC: A04 FRM: B101<br>G/F SYS: / IL M/W CD: / | NY 097622117 |
| 09/27/99 | 000096<br>NYC5936220 | ILD984908202 | D001 DM<br>D018 | 6 P | 341.7 R | 0000704 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (ERG#128)6.7#/GAL (D001,D018,D039,D040)<br>ORG: 1 SRC: A04 FRM: B203<br>G/F SYS: / IL M/W CD: / | NY 097756228 |
| 09/27/99 | 000096<br>NYC5936220 | ILD984908202 | D001 DM<br>D018 | 2 P | 194.3 R | 0000801 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII RQ (D018)ERG#128 (6.7#/GL)(D001,D039,D040)<br>ORG: 1 SRC: A04 FRM: B203<br>G/F SYS: / IL M/W CD: / | NY 097756228 |
| 10/25/99 | 000033<br>NYC5963196 | ILD984908202 | D001 DM<br>D018 | 6 P | 301.5 R | 0000704 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (ERG#128)6.7#/GAL (D001,D018,D039,D040)<br>ORG: 1 SRC: A04 FRM: B203<br>G/F SYS: / IL M/W CD: / | NY 097890743 |
| 10/25/99 | 000033<br>NYC5963196 | ILD984908202 | D001 DM<br>D018 | 2 P | 214.4 R | 0000801 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII RQ (D018)ERG#128 (6.7#/GL)(D001,D039,D040)<br>ORG: 1 SRC: A04 FRM: B203<br>G/F SYS: / IL M/W CD: / | NY 097890743 |
| 11/22/99 | 000058<br>NYC5990321 | ILD984908202 | D001 DM<br>D018 | 6 P | 308.2 R | 0000704 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (ERG#128)6.7#/GAL (D001,D018,D039,D040)<br>ORG: 1 SRC: A04 FRM: B203<br>G/F SYS: / IL M/W CD: / | NY 098024879 |
| 11/22/99 | 000058<br>NYC5990321 | ILD984908202 | D001 DM<br>D018 | 2 P | 187.6 R | 0000801 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII RQ (D018)ERG#128 (6.7#/GL)(D001,D039,D040)<br>ORG: 1 SRC: A04 FRM: B203<br>G/F SYS: / IL M/W CD: / | NY 098024879 |
| 12/20/99 | 000103<br>NYC5941912 | ILD984908202 | D001 DM<br>D018 | 6 P | 368.5 R | 0000704 | WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII | NY 098154926 |

Form Approved OMB No. 2050-0072

# Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

*Specific Information by Chemical*

**Facility Identification**
Name: Sulzer Metco (US) Inc
Street: 1101 Prospect Ave
City: Westbury County: Nassau State: NY Zip: 11590
SIC Code: 3542 Dun & Brad Number: 87-429-0349

FOR OFFICIAL USE ONLY
ID #
Date Received

**Owner/Operator Name**
Name: Kevin D. Rodgers Phone: 516-338-2473
Mail Address: 1101 Prospect Ave, Westbury, NY 11590

**Emergency Contact**
Name: Michael S. Lydon Title: EH&S Specialist
Phone: 516-338-2337 24 Hr. Phone: 800-424-9300 Chemtrec
Name: Kevin D. Rodgers Title: Manager, Facilities
Phone: 516-338-2473 24 Hr. Phone: 800-424-9300 Chemtrec

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 19 99

[ ] Check if information below is identical to the information submitted last year.

## Chemical Description

### CAS 7429905 — Chem. Name: Aluminum Powder
Trade Secret: [ ]
Check all that apply: [x] Pure [x] Mix [x] Solid [ ] Liquid [ ] Gas [ ] EHS
EHS Name:

**Physical and Health Hazards** (check all that apply)
[x] Fire
[ ] Sudden Release of Pressure
[x] Reactivity
[x] Immediate (acute)
[x] Delayed (chronic)

**Inventory**
Max. Daily Amount (code): 04
Avg. Daily Amount (code): 04
No. of Days On-site (days): 365

| Container Type | Pressure | Temperature |
|---|---|---|
| N | 1 | 4 |
| D | 1 | 4 |

**Storage Codes and Locations (Non-Confidential)** — *Storage Locations*
Applications Laboratories
Warehouse

Optional: [ ]

### CAS 1344281 — Chem. Name: Aluminum Oxide Powder
Trade Secret: [ ]
Check all that apply: [x] Pure [x] Mix [x] Solid [ ] Liquid [ ] Gas [ ] EHS
EHS Name:

**Physical and Health Hazards** (check all that apply)
[ ] Fire
[ ] Sudden Release of Pressure
[ ] Reactivity
[x] Immediate (acute)
[x] Delayed (chronic)

**Inventory**
Max. Daily Amount (code): 04
Avg. Daily Amount (code): 04
No. of Days On-site (days): 365

| Container Type | Pressure | Temperature |
|---|---|---|
| N | 1 | 4 |
| D | 1 | 4 |

**Storage Codes and Locations (Non-Confidential)** — *Storage Locations*
Applications Laboratories
Warehouse

Optional: [ ]

### CAS 7439896 — Chem. Name: Iron Powder
Trade Secret: [ ]
Check all that apply: [x] Pure [x] Mix [x] Solid [ ] Liquid [ ] Gas [ ] EHS
EHS Name:

**Physical and Health Hazards** (check all that apply)
[x] Fire
[ ] Sudden Release of Pressure
[x] Reactivity
[x] Immediate (acute)
[x] Delayed (chronic)

**Inventory**
Max. Daily Amount (code): 04
Avg. Daily Amount (code): 04
No. of Days On-site (days): 365

| Container Type | Pressure | Temperature |
|---|---|---|
| N | 1 | 4 |
| D | 1 | 4 |

**Storage Codes and Locations (Non-Confidential)** — *Storage Locations*
Applications Laboratories
Warehouse Warehouse

Optional: [ ]

**Certification** *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 2, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Kevin D. Rodgers, Manager Facilities
Name and official title of owner/operator OR owner/operator's authorized representative

Signature

02-24-00
Date signed

**Optional Attachments**
[ ] I have attached a site plan
[ ] I have attached a list of site coordinate abbreviations
[ ] I have attached a description of dikes and other safeguards measures

# Tier Two EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

*Specific Information by Chemical*

**Facility Identification**
Name: Sulzer Metco (US) Inc
Street: 1101 Prospect Ave
City: Westbury County: Nassau State: NY Zip: 11590
SIC Code: 3542 Dun & Brad Number: 874290349

FOR OFFICIAL USE ONLY
ID #
Date Received

**Owner/Operator Name**
Name: Kevin D. Rodgers Phone: 516-338-2473
Mail Address: 1101 Prospect Ave, Westbury, NY 11590

**Emergency Contact**
Name: Michael S. Lydon Title: EH&S Specialist
Phone: 516-338-2337 24 Hr. Phone: 800-424-9300 Chemtrec
Name: Kevin D. Rodgers Title: Manager, Facilities
Phone: 516-338-2473 24 Hr. Phone: 800-424-9300 Chemtrec

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 19 99

[ ] Check if information below is identical to the information submitted last year.

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Container Type / Pressure / Temperature | Storage Codes and Locations (Non-Confidential) — Storage Locations | Optional |
|---|---|---|---|---|---|
| CAS 7440020 Trade Secret [ ]<br>Chem. Name Nickel Powder<br>Check all that apply: [x] Pure [x] Mix [x] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name | [ ] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[x] Immediate (acute)<br>[x] Delayed (chronic) | Max. Daily Amount (code): 04<br>Avg. Daily Amount (code): 04<br>No. of Days On-site (days): 365 | N 1 4<br>D 1 4 | Applications Laboratories<br>Warehouse | [ ] |
| CAS 7440473 Trade Secret [ ]<br>Chem. Name Chromium Powder<br>Check all that apply: [x] Pure [x] Mix [x] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name | [ ] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[x] Immediate (acute)<br>[x] Delayed (chronic) | Max. Daily Amount (code): 04<br>Avg. Daily Amount (code): 04<br>No. of Days On-site (days): 365 | N 1 4<br>D 1 4 | Applications Laboratories<br>Warehouse | [ ] |
| CAS 1314234 Trade Secret [ ]<br>Chem. Name Zirconium Powder<br>Check all that apply: [x] Pure [x] Mix [x] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name | [ ] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[ ] Immediate (acute)<br>[x] Delayed (chronic) | Max. Daily Amount (code): 04<br>Avg. Daily Amount (code): 04<br>No. of Days On-site (days): 365 | N 1 4<br>D 1 4 | Applications Laboratories<br>Warehouse Warehouse | [ ] |

**Certification** *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 2, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Kevin D. Rodgers, Manager Facilities — Name and official title of owner/operator OR owner/operator's authorized representative
Signature
02-24-00 — Date signed

**Optional Attachments**
[ ] I have attached a site plan
[ ] I have attached a list of site coordinate abbreviations
[ ] I have attached a description of dikes and other safeguards measures

E COMPANY
1905 Aston Avenue, #100
Carlsbad, CA 92008
Ph: 760-602-8700
Fax: 760-602-8888

# Material Safety Data Sheet Transmittal Form

25-Jul-01

Request #: 474851
Processed By: Maria Mena

Recipient:

**ATTN: MARIAN FELDHUSEN**

**516-338-2123**

Requester:

**SAFETY-KLEEN CUSTOMER**

**Safety-Kleen Corporation CORP**
**Safety-Kleen Corporation**

Thank you for using 3E's MSDS Paperless Compliance™ service. This service may eliminate the requirement to maintain MSDS on site. Below is a list of the MSDS you requested. Please verify that the MSDS sheet(s) enclosed/attached match what you have ordered.

3E COMPANY does not develop, prepare, or review the contents of any MSDS; the MSDS is prepared by the manufacturer. The statements, technical information and recommendations contained herein are transmitted without warranty or guarantee of any kind, expressed or implied, by 3E COMPANY. Furthermore, 3E COMPANY assumes no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use.

If you have any questions regarding the MSDS, or you would like further information on the paperless compliance program, please call 3E Company at (800) 360-3220 or visit us at www.3ecompany.com.

| Index3E | Manufacturer<br>ORDERED/Actual | Product Name<br>ORDERED/Actual | UPC | Item<br>SKU |
|---|---|---|---|---|
| R | **The MSDS is attached for the following product(s).** | | | |
| SAKC00017404 | | SAFETY-KLEEN 105 | | |
| Verified Current: 7/17/01 | Safety-Kleen Corp. | Safety-Kleen 105 Solvent Recycled | | |

**END OF ORDER DETAIL - Request # 474851**

3E Company is North America's leader in hazardous materials information management. 3E simplifies compliance for over 75,000 business locations worldwide. Services include: MSDS on Demand, 3E On-line, Government Disclosures, Hazmat Transportation Services, Emergency Response and Chemical Spill/Exposure Hotlines. For more information call
**(800) 360-3220 or visit us at www.3ecompany.com**



P2SUL004421

# SAFETY-KLEEN 105 SOLVENT RECYCLED

## MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

safety-kleen.

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** **SAFETY-KLEEN 105 SOLVENT RECYCLED**

**SYNONYMS:** Parts Washer Solvent; Petroleum Distillates; Petroleum Naptha; Naptha, Solvent; Stoddard Solvent; Mineral Spirits.

**PRODUCT PART NUMBERS:** 6614, 6617, 1011662, 1014662.

**PRODUCT USE:** Cleaning and degreasing metal parts.
If this product is used in combination with other products, refer to the Material Safety Data Sheets for those products.

| | 24-HOUR EMERGENCY PHONE NUMBERS | |
|---|---|---|
| **These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.** | **MEDICAL:**<br>**1-800-752-7869 Extension 2**<br>**or**<br>**1-312-906-6194** | **TRANSPORTATION (SPILL):**<br>**1-800-468-1760 (USA)**<br>**1-613-996-6666 (CANADA) (call collect)** |

**SUPPLIER:** Safety-Kleen Corp.
1301 Gervais Street, Suite 300
Columbia, SC 29201
USA
**1-803-933-4200**

**TECHNICAL INFORMATION: 1-800-669-5740, Extension 7500**

**MSDS FORM NUMBER:** 82310 **ISSUE:** March 24, 2000

**ORIGINAL ISSUE:** April 8, 1976 **SUPERSEDES:** April 4, 1997

**PREPARED BY:** Product MSDS Coordinator **APPROVED BY:** MSDS Task Force


P2SUL004422

# SAFETY-KLEEN 105 SOLVENT RECYCLED
# MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

| | | | | OSHA PEL | | ACGIH TLV® | | | |
|---|---|---|---|---|---|---|---|---|---|
| WT% | NAME | SYNONYM | CAS NO. | TWA | STEL | TWA | STEL | LD | LC |
| 99 to 100 | Distillates (petroleum), hydrotreated light[e] | N.Av. | 64742-47-8 | 500[d] ppm | N.Av. | 100[d] ppm | N.Av. | >5000[g,c] | >5500[d,h] mg/m$^3$/4 hours |
| 0 to 0.2* | Tetrachloroethene | Perchloroethylene; Tetrachloroethylene | 127-18-4 | 100 ppm | 200 ppm (ceiling) | 25 ppm | 100 ppm | 2629[a,f] | 34200[b] mg/m$^3$/8 hours |

N.Av. = Not Available
*Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.
[a]Oral-Rat $LD_{50}$ (mg/kg)
[b]Inhalation-Rat $LC_{50}$
[c]Based on Stoddard solvent: Skin-Rabbit $LD_{50}$ >3000 mg/kg
[d]Based on Stoddard Solvent.
[e]Based on Stoddard Solvent, NIOSH IDLH (Immediately Dangerous to Life or Health): 20000 mg/m$^3$ (5000 ppm)
[f]Skin-Rabbit $LD_{50}$ >10000 mg/kg
[g]Oral-Rat LD (mg/kg)
[h]Inhalation-Rat LC

## SECTION 3: HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**APPEARANCE**
Liquid, clear and green, mild hydrocarbon odor.

**WARNING!**

**PHYSICAL HAZARD**
Combustible liquid and vapor.

**HEALTH HAZARDS**
May be harmful if inhaled.
May irritate eyes and skin.
May be harmful if swallowed.
Suspect cancer hazard. Contains material (less than 0.3 WT%) which may cause cancer.
Risk of cancer depends on duration and level of exposure.
Contains material which may cause birth defects.
Contains material which may cause central nervous system damage.

**ENVIRONMENTAL HAZARDS**
Toxic to aquatic life.

# SAFETY-KLEEN 105 SOLVENT RECYCLED
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## POTENTIAL HEALTH EFFECTS

**INHALATION (BREATHING):** High concentrations of vapor or mist may be harmful if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.

**EYES:** May cause irritation with watering, stinging, and/or redness.

**SKIN:** May cause irritation. Not likely to be absorbed through the skin in harmful amounts.

**INGESTION (SWALLOWING):** May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under **INHALATION (BREATHING)**. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Individuals with pre-existing respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

**CHRONIC:** Prolonged or repeated inhalation may cause toxic effects as noted under **INHALATION (BREATHING)**. Prolonged or repeated inhalation and/or ingestion has been suggested to produce kidney toxicity in dogs but in no other species, including humans. According to one unsubstantiated human case report, prolonged or repeated inhalation, skin contact, and/or ingestion may cause mild, acute chemical hepatitis and acute, yellow atrophy (size reduction) of the liver. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis); and/or burns.

**CANCER INFORMATION:** This product contains perchloroethylene which may cause cancer. Risk of cancer depends on duration and level of exposure. For more information, see **SECTION 11: CARCINOGENICITY**.

Also see **SECTION 15: CALIFORNIA**.

## POTENTIAL ENVIRONMENTAL EFFECTS

Product is toxic to aquatic life. Also see **SECTION 12: ECOLOGICAL INFORMATION**.

# SAFETY-KLEEN 105 SOLVENT RECYCLED
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## SECTION 4: FIRST AID MEASURES

**INHALATION: (BREATHING)** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

**EYES:** If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

**SKIN:** Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.

**INGESTION: (SWALLOWING)** Do NOT induce vomiting. Immediately get medical attention. Call 1-800-752-7869, extension 2 or 1-312-906-6194 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.

**NOTE TO PHYSICIANS:** Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Treatment may vary with condition of victim and specifics of incident. Call 1-800-752-7869, extension 2 or 1-312-906-6194 for additional information.

## SECTION 5: FIRE FIGHTING MEASURES

**FLASH POINT:** 105°F (40°C) (minimum) Tag Closed Cup

**FLAMMABLE LIMITS IN AIR:** **LOWER:** 0.7 VOL% (minimum)
**UPPER:** 5 VOL% (maximum)

**AUTOIGNITION TEMPERATURE:** 410°F (210°C) (minimum)

**HAZARDOUS COMBUSTION PRODUCTS:** Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.

**CONDITIONS OF FLAMMABILITY:** Heat, sparks, or flame.

**EXTINGUISHING MEDIA:** Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

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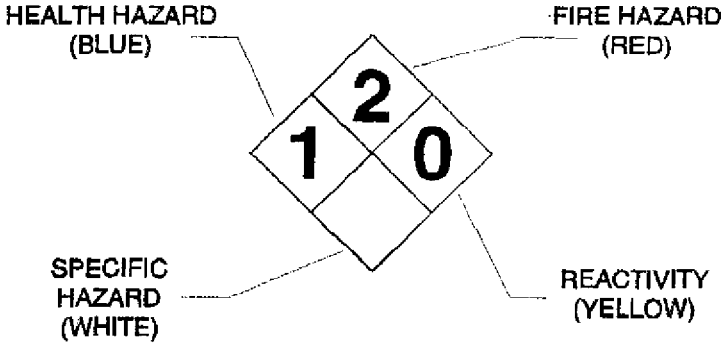
**NFPA 704 HAZARD IDENTIFICATION:**

This information is intended solely for the use by individuals trained in this system.




**FIRE FIGHTING INSTRUCTIONS:**

Keep storage containers cool with water spray.
A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

**FIRE AND EXPLOSION HAZARDS:**

Vapor explosion hazard indoors, outdoors, or in sewers. Vapors may travel to ignition source and flashback. Vapors will spread along the ground and collect in low or confined areas. Run-off to sewer may create a fire hazard. Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Not sensitive to mechanical impact. Product may be sensitive to static discharge, which could result in fire or explosion.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface waters and sewers. Contain spill as a liquid for possible recovery or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **SECTION 15: REGULATORY INFORMATION.**

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## SECTION 7: HANDLING AND STORAGE

**HANDLING:** Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

**SHIPPING AND STORING:** Keep container tightly closed when not in use and during transport. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORT INFORMATION** for Packing Group information.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

**PERSONAL PROTECTIVE EQUIPMENT**

**RESPIRATORY PROTECTION:** Use NIOSH-certified, air-purifying respirators with organic vapor cartridges respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air-purifying respirators is limited. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

**EYE PROTECTION:** Where eye contact is likely, wear chemical goggles; contact lens use is not recommended.

**SKIN PROTECTION:** Where skin contact is likely, wear nitrile, supported neoprene, Viton®, polyvinyl alcohol (PVA), laminate (such as North Silver Shield®, Safety 4 4h®, Ansell Edmont Barrier®), or equivalent protective gloves; use of polyvinyl chloride (PVC), natural rubber (latex), or equivalent gloves is not recommended.

| | |
|---|---|
| | To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing. |
| **PERSONAL HYGIENE:** | Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with the product. |
| **OTHER PROTECTIVE EQUIPMENT:** | Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area. |

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **PHYSICAL STATE, APPEARANCE, AND ODOR:** | Liquid, clear and green, mild hydrocarbon odor. |
| **ODOR THRESHOLD:** | 30 ppm (based on Stoddard Solvent) |
| **MOLECULAR WEIGHT:** | Not available. |
| **SPECIFIC GRAVITY:** | 0.77 to 0.80 at 60°F/60°F (15.6°C/15.6°C) (water = 1) |
| **DENSITY:** | 6.4 to 6.7 LB/US gal (770 to 800 g/l) |
| **VAPOR DENSITY:** | 5 (air = 1) (approximately) |
| **VAPOR PRESSURE:** | 0.4 mm Hg at 68°F (20°C) (approximately)<br>1.0 mm Hg at 100°F (38°C) (approximately) |
| **BOILING POINT:** | 310°F (155°C) (initial) |
| **FREEZING/MELTING POINT:** | -45°F (-43°C) (maximum) |
| **pH:** | Not applicable. |
| **EVAPORATION RATE:** | 0.1 (butyl acetate = 1) (based on Stoddard Solvent) |
| **SOLUBILITY IN WATER:** | Insoluble. |
| **FLASH POINT:** | 105°F (40°C) (minimum) Tag Closed Cup |

**FLAMMABLE LIMITS IN AIR:** **LOWER:** 0.7 VOL% (minimum)
**UPPER:** 5 VOL% (maximum)

**AUTOIGNITION TEMPERATURE:** 410°F (210°C) (minimum)

## SECTION 10: STABILITY AND REACTIVITY

**STABILITY:** Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.

**INCOMPATIBILITY:** Avoid acids, alkalies, oxidizing agents, reducing agents, reactive halogens, or reactive metals.

**REACTIVITY:** Polymerization is not known to occur under normal temperatures and pressures. Not reactive with water.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None under normal temperatures and pressures. See also **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS**.

## SECTION 11: TOXICOLOGICAL INFORMATION

**SENSITIZATION:** Based on best current information, there is no known human sensitization associated with this product.

**MUTAGENICITY:** Perchloroethylene has demonstrated animal effects of mutagenicity.

Based on best current information, the other component listed in **SECTION 2** is not a mutagen.

**CARCINOGENICITY:** Perchloroethylene is categorized by IARC as probably carcinogenic to humans (Group 2A). Perchloroethylene is listed by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

Perchloroethylene is categorized by ACGIH as a confirmed animal carcinogen with unknown relevance to humans (A3). This agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

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Based on best current information, the other component listed in **SECTION 2** is not a carcinogen.

Also see **SECTION 3: CANCER INFORMATION** and **SECTION 15: CALIFORNIA.**

**REPRODUCTIVE TOXICITY:** Based on best current information, there is no known reproductive toxicity associated with this product.

Also see **SECTION 15: CALIFORNIA.**

**TERATOGENICITY:** Perchloroethylene has demonstrated animal effects of teratogenicity.

Based on best current information, the other component listed in **SECTION 2** is not a teratogen.

**TOXICOLOGICALLY SYNERGISTIC PRODUCT(S):** Based on best current information, there are no known toxicologically synergistic products associated with this product.

## SECTION 12: ECOLOGICAL INFORMATION

**ECOTOXICITY:** 2900 ug/L 96 hour $LC_{50}$ Rainbow trout, donaldson trout (Oncorhynchus mykiss) (based on Distillates (petroleum) hydrotreated light).

**OCTANOL/WATER PARTITION COEFFICIENT:** Not available.

**VOLATILE ORGANIC COMPOUNDS:** 100 WT%; 6.4 to 6.7 LB/US gal; 770 to 800 g/l
As per 40 CFR Part 51.100(s).

## SECTION 13: DISPOSAL CONSIDERATIONS

**DISPOSAL:** Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding recycling or proper disposal.

**USEPA WASTE CODE(S):** D001, D018, D039, and D040
Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of this product.

# SAFETY-KLEEN 105 SOLVENT RECYCLED
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## SECTION 14: TRANSPORT INFORMATION

**DOT:** COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA), NA1993, PG III

**TDG:** Petroleum Distillates, N.O.S., Class 3, UN1268, PG III

**EMERGENCY RESPONSE GUIDE NUMBER:** 128
Reference *North American Emergency Response Guidebook*

## SECTION 15: REGULATORY INFORMATION

**USA REGULATIONS**

**SARA SECTIONS 302 AND 304:** Based on the ingredients listed in **SECTION 2**, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

**SARA SECTIONS 311 AND 312:** This product poses the following physical and health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard
Fire Hazard

**SARA SECTION 313:** The following component is subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

| Material | CAS |
|---|---|
| Perchloroethylene | 127-18-4 |

**CERCLA:** Based on the ingredients listed in **SECTION 2**, this product contains the following "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantity (RQ):

| Material | CAS | RQ |
|---|---|---|
| Perchloroethylene | 127-18-4 | 100 LB (15.4 kg) |

**TSCA:** All the components of this product are listed on the TSCA Inventory.


P2SUL00443

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**CALIFORNIA:** This product may contain detectable amounts of benzene CAS 71-43-2, p-dichlorobenzene CAS 106-46-7, methylene chloride CAS 75-09-2, perchloroethylene CAS 127-18-4, and trichloroethylene CAS 79-01-6. WARNING: These chemicals are known to the State of California to cause cancer.

This product may contain detectable amounts of benzene CAS 71-43-2 and toluene CAS 108-88-3. WARNING: These chemicals are known to the State of California to cause birth defects or other reproductive harm.

**CANADIAN REGULATIONS**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS:** B3, D2A, D2B

**CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):** All the components of this product are listed on the Canadian Domestic Substances List (DSL).

## SECTION 16: OTHER INFORMATION

**REVISION INFORMATION:** Revised format. This MSDS has been revised in the following sections:

**SECTION 3:** Emergency Overview, Inhalation, Chronic
**SECTION 4:** Ingestion
**SECTION 5:** Upper Flammable Limit, Autoignition Temperature
**SECTION 8:** Skin Protection
**SECTION 9:** Molecular Weight
**SECTION 11:** Mutagenicity, Carcinogenicity, Reproductive Toxicity, Teratogenicity
**SECTION 12:** Ecotoxicity
**SECTION 13:** USEPA Waste Codes

**LABEL/OTHER INFORMATION:** This product is United States Department of Agriculture (USDA) approved, Underwriter's Laboratories (UL) classified, and Factory Mutual (FM) approved.

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the product as supplied to the user.

WE CARE.

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# MATERIAL SAFETY DATA SHEET

EXXON CHEMICAL COMPANY
A Division of EXXON CORPORATION

ACTREL 3349L CLEANER


DATE PREPARED: MAR 21, 1998
MSDS NO.: 92887640

## SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** ACTREL 3349L Cleaner
**CHEMICAL NAME:**
Petroleum Hydrocarbon CAS 64742-48-9
**CHEMICAL FAMILY:**
Aliphatic Hydrocarbon
**PRODUCT DESCRIPTION:**
Clear colorless liquid.

**CONTACT ADDRESS:**
EXXON CHEMICAL COMPANY
P.O. BOX 3272, HOUSTON, TEXAS 77253-3272

** EMERGENCY TELEPHONE NUMBERS: (24 Hours) **
** CHEMTREC (800) 424-9300 **
** EXXON CHEMICAL COMPANY (800) 726-2015 **

NON EMERGENCY TELEPHONE NUMBERS : (8am-5pm M-F)
FOR HEALTH AND SAFETY INFORMATION CALL : (281) 870-6884
FOR GENERAL PRODUCT INFORMATION CALL : (281) 870-6000

## SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

This product is hazardous as defined in 29 CFR1910.1200.
OSHA HAZARD
Combustible

## SECTION 3 HAZARDS IDENTIFICATION

**POTENTIAL HEALTH EFFECTS**

**EYE CONTACT:**
Slightly irritating but does not injure eye tissue.

**SKIN CONTACT:**
Frequent or prolonged contact may irritate and cause dermatitis.
Low order of toxicity.
Skin contact may aggravate an existing dermatitis condition.

**INHALATION:**
High vapor/aerosol concentrations (greater than approximately 1000 ppm) are irritating to the eyes and the respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

**INGESTION:**
Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.
Minimal toxicity.

## SECTION 4 FIRST AID MEASURES

**EYE CONTACT:**
Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

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EXXON CHEMICAL COMPANY

A Division of EXXON CORPORATION

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**SKIN CONTACT:**
Flush with large amounts of water: use soap if available.
Remove grossly contaminated clothing, including shoes, and launder before reuse.

**INHALATION:**
Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

**INGESTION:**
If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

## SECTION 5 FIRE-FIGHTING MEASURES

**FLASH POINT:** 120 Deg F. METHOD: TCC ASTM D56 NOTE: Minimum
**FLAMMABLE LIMITS:** LEL: 1.3 UEL: 9.8
**AUTOIGNITION TEMPERATURE:** 660 Deg F. NOTE: Greater than;ASTM D 2155

**GENERAL HAZARD**
Combustible Liquid, can form combustible mixtures at temperatures at or above the flashpoint.
Static Discharge, material can accumulate static charges which can cause an incendiary electrical discharge .
"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.
Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

**FIRE FIGHTING**
Use water spray to cool fire exposed surfaces and to protect personnel.
Isolate "fuel" supply from fire.
Use foam, dry chemical, or water spray to extinguish fire.
Avoid spraying water directly into storage containers due to danger of boilover.
This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

**DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS**
No unusual

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**LAND SPILL**
Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is subject to CERCLA reporting (see Section 15 REGULATORY INFORMATION) notify the National Response Center.
Prevent liquid from entering sewers, watercourses, or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust.
Recover by pumping (use an explosion proof or hand pump) or with a

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suitable absorbent.
Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

**WATER SPILL**

Eliminate sources of ignition. Warn occupants and shipping in surrounding and downwind areas of fire and explosion hazard and request all to stay clear.
Remove from surface by skimming or with suitable adsorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in non-confined waters.
Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

## SECTION 7 STORAGE AND HANDLING

**ELECTROSTATIC ACCUMULATION HAZARD:**

Yes, use proper bonding and/or grounding procedure.
Additional information regarding safe handling of products with static accumulation potential can be ordered by contacting the American Petroleum Institute (API) for API Recommended Practice 2003, entitled "Protection Against Ignitions Arising Out of Static, Lighting, and Stray Currents" (American Petroleum Institute, 1220 L Street Northwest, Washington, DC 20005), or the National Fire Protection Association (NFPA) for NFPA 77 entitled "Static Electricity" (National Fire Protection Association, 1 Batterymarch Park, P.O Box 9101, Quincy, MA 02269-9101).

**STORAGE TEMPERATURE, °F:**
Ambient

**LOADING/UNLOADING TEMPERATURE, °F:**
Ambient

**STORAGE/TRANSPORT PRESSURE, mmHg:**
Atmospheric

**LOADING/UNLOADING VISCOSITY, cSt:**
2.1

**STORAGE AND HANDLING:**

Keep container closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials.
Do NOT handle or store near an open flame, heat or other sources of ignition. Protect material from direct sunlight.
Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures.
Do NOT pressurize, cut, heat, or weld containers. Empty product containers may contain product residue. Do NOT reuse empty containers without commercial cleaning or reconditioning.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**EXPOSURE CONTROLS**

The use of mechanical dilution ventilation is recommended whenever this product is used in a confined space, is heated above ambient temperatures, or is agitated.

**PERSONAL PROTECTION**

For open systems where contact is likely, wear safety glasses with side shields, long sleeves, and chemical resistant gloves.
Where contact may occur, wear safety glasses with side shields.
Where concentrations in air may exceed the limits given in this Section and engineering, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent

Continues on page 4

# MATERIAL SAFETY DATA SHEET

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overexposure by inhalation.

**WORKPLACE EXPOSURE GUIDELINES**

**EXXON RECOMMENDS THE FOLLOWING OCCUPATIONAL EXPOSURE LIMITS:**

300 ppm total hydrocarbon based on composition.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**SPECIFIC GRAVITY, at °F:**
0.76 at 60

**SOLUBILITY IN WATER, wt. % at °F:**
Less than 0.10 at 68

**SP. GRAV. OF VAPOR, at 1 atm (Air=1):**
5.51

**EVAPORATION RATE, n-Bu Acetate=1:**
0.1

**VAPOR PRESSURE, mmHg at °F:**
1 at 68

**VISCOSITY OF LIQUID, cSt at °F:**
1.5 at 77
2.1 at 61

**FREEZING/MELTING POINT, °F:**
Less than 32

**BOILING POINT, °F:**
335 to 380 Approximately

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:**
Stable

**CONDITIONS TO AVOID INSTABILITY:**
Not Applicable

**HAZARDOUS POLYMERIZATION:**
Will not occur

**CONDITIONS TO AVOID HAZARDOUS POLYMERIZATION:**
Not Applicable

**MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY:**
Strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:**
None

## SECTION 11 TOXICOLOGICAL INFORMATION

Please refer to Section 3 for available information on potential health effects.

## SECTION 12 ECOLOGICAL INFORMATION

No specific ecological data are available for this product. Please refer to Section 6 for information regarding accidental releases and Section 15 for regulatory reporting information.

## SECTION 13 DISPOSAL CONSIDERATIONS

Please refer to Sections 5, 6, and 15 for disposal and regulatory information.

## SECTION 14 TRANSPORT INFORMATION

**DEPARTMENT OF TRANSPORTATION (DOT):**
DOT SHIPPING DESCRIPTION: PETROLEUM DISTILLATE, N.O.S., COMBUSTIBLE LIQUID, UN 1268, III

Continues on page 5

EPA TIER II

REPORTING YEAR 1994



HAZARDOUS CHEMICALS 10,000# AT ANY TIME DURING CALENDAR YEAR

EXTREMELY HAZARDOUS CHEMICALS 500# OR THRESHOLD PLANNING QUANTITY — WHICHEVER IS LESS AT ANY TIME.

MILLER PLACE FACILITY

| | | | | | | |
|---|---|---|---|---|---|---|
| ALUMINUM POWDER | TIER II 94 - 04 | TIER II 93 - 04 | TIER II 92 - 04 | FORM R 93 - 04 | FORM R 92 - 04 | FORM R 91 - 04 |
| ALUMINUM OXIDE POWDER | TIER II 94 - 03 | TIER II 93 - 04 | TIER II 92 - 04 | FORM R 93 - N/A | FORM R 92 - N/A | FORM R 91 - 04 |
| CHROMIUM POWDER | TIER II 94 - 03 | TIER II 93 - 03 | TIER II 92 - 03 | FORM R 93 - 03 | FORM R 92 - 03 | FORM R 91 - 03 |
| COBALT POWDER | TIER II 94 - 04 | TIER II 93 - 04 | TIER II 92 - 04 | FORM R 93 - 04 | FORM R 92 - 04 | FORM R 91 - 04 |
| NICKEL POWDER | TIER II 94 - 04 | TIER II 93 - 04 | TIER II 92 - 04 | FORM R 93 - 04 | FORM R 92 - 04 | FORM R 91 - 04 |
| ZIRCONIUM OXIDE POWDER | TIER II 94 - 04 | TIER II 93 - 04 | TIER II 92 - 04 | FORM R 93 - N/A | FORM R 92 - N/A | FORM R 91 - N/A |
| POLYESTER "POLY" HOMOPOLYMER | TIER II 94 - 04 | TIER II 93 N/A | | FORM R 93 N/A | | |

TIER II

03 1,000 - 9,999

04 10,000 - 99,999

10,000 REPORTABLE CAS

FORM R

03 1,000 - 9,999

04 10,000 - 99,999

05 100,000 - 999,999

MAXIMUM AMOUNT ON SITE

EPA TIER II

REPORTING YEAR 1994



MILLER PLACE FACILITY

SPOKE TO KELLY LEISSLER - OBTAIN THE FOLLOWING INFORMATION

(1) CONFIRM MATERIALS IN HOUSE AT ANY POINT IN TIME ABOVE 10,000#

ALUMINUM, ALUMINUM OXIDE, CHROMIUM, COBALT, NICKEL, ZIRCONIUM, ZIRCONIUM OXIDE

(2) MATERIALS ON HAND AND YEAR TO DATE

| MATERIAL | ON HAND | YEAR TO DATE |
|---|---|---|

SEE ATTACHED REPORT FROM BARBARA K. QUERY XCESS

WORK COPY MP


Form Approved OMB No 2050 0072

# Tier Two
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**

*Specific Information by Chemical*

**Facility Identification**

Name: SULZER METCO (US) INC.
Street: 220 MILLER PLACE
City: HICKSVILLE County: NASSAU State: NY Zip: 11801
SIC Code: 3399 Dun & Brad Number: 15-208-4398

**FOR OFFICIAL USE ONLY** ID #: Date Received:

**Owner/Operator**
Name: JOSEPH REARDON Ph.D. Phone: 516,334-1300
Mail Address: 1101 PROSPECT AVENUE, WESTBURY NY 11590

**Emergency Contact**
Name: JOSEPH REARDON Title: SENIOR MANAGER
Phone: (516) 334-1300 X2316 24 Hr Phone: (800) 424-9300 CHEMTREC

Name: CONSTANCE CONROY Title: SUPERVISOR
Phone: (516) 334-1300 X2337 24 Hr Phone: (800) 424-9300 CHEMTREC

*Important: Read all instructions before completing form*

Reporting Period From January 1 to December 31, 19 94

☐ Check if information below is identical to the information submitted last year.

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Storage Codes and Locations (Non-Confidential) — Storage Locations | Optional |
|---|---|---|---|---|
| CAS 7440-02-0 ☐ Trade Secret<br>Chem. Name: NICKEL<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐, EHS ☐<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 1 4 WAREHOUSE, PRODUCTION FLOOR<br>N 1 4 PRODUCTION FLOOR<br>R 1 4 PRODUCTION FLOOR - HARDENED STEEL HOPPERS<br>E 1 4 WAREHOUSE, PRODUCTION FLOOR<br>I 1 4 WAREHOUSE, PRODUCTION FLOOR | ☐ |
| CAS 7440-47-3 ☐ Trade Secret<br>Chem. Name: CHROMIUM<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐, EHS ☐<br>EHS Name: | X Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 03 Max. Daily Amount (code)<br>03 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 1 4 WAREHOUSE, PRODUCTION FLOOR<br>N 1 4 PRODUCTION FLOOR<br>R 1 4 PRODUCTION FLOOR - HARDENED STEEL HOPPERS<br>E 1 4 WAREHOUSE, PRODUCTION FLOOR<br>I 1 4 WAREHOUSE, PRODUCTION FLOOR | ☐ |
| CAS 7440-48-4 ☐ Trade Secret<br>Chem. Name: COBALT<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐, EHS ☐<br>EHS Name: | X Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 1 4 WAREHOUSE, PRODUCTION FLOOR<br>N 1 4 PRODUCTION FLOOR<br>R 1 4 PRODUCTION FLOOR - HARDENED STEEL HOPPERS<br>E 1 4 WAREHOUSE, PRODUCTION FLOOR<br>I 1 4 WAREHOUSE, PRODUCTION FLOOR | ☐ |

INFO ONLY

WAREHOUSE
D STEEL DRUM
E PLASTIC DRUM
I FIBER DRUM

FLOOR
D STEEL DRUM
E PLASTIC DRUM
N PLASTIC JUG
I FIBER DRUM
R OTHER HOPPERS

PRESSURE
1 AMBIENT

TEMPERATURE
4 AMBIENT

**Certification** *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 3 and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete

JOSEPH REARDON, Ph.D. SENIOR MANAGER — Name and official title of owner/operator OR owner/operator's authorized representative
X — Signature
04-27-95 — Date signed

**Optional Attachments**
☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

WORK COPY MP


Form Approved OMB No 2050 0072

# Tier Two
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**

*Specific Information by Chemical*

**Facility Identification**

Name: SULZER METCO (US) INC.
Street: 220 MILLER PLACE
City: HICKSVILLE County: NASSAU State: NY Zip: 11801
SIC Code: 3399 Dun & Brad Number: 15-208-4398

**FOR OFFICIAL USE ONLY** ID # / Date Received

**Owner/Operator Name**

Name: JOSEPH REARDON, Ph.D. Phone: (516) 334-1300
Mail Address: 1101 PROSPECT AVENUE, WESTBURY NY 11590

**Emergency Contact**

Name: JOSEPH REARDON Title: SENIOR MANAGER
Phone: (516) 334-1300 X 2316 24 Hr Phone: (800) 424-9300 CHEMTREC

Name: CONSTANCE CONROY Title: SUPERVISOR
Phone: (516) 334-1300 X 2337 24 Hr Phone: (800) 424-9300 CHEMTREC

*Important: Read all instructions before completing form*

Reporting Period From January 1 to December 31, 19 94

☐ Check if information below is identical to the information submitted last year.

## Chemical 1

CAS: 7429905 Trade Secret: ☐
Chem. Name: ALUMINUM
Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [ ] Gas [ ] EHS [ ]
EHS Name:

Physical and Health Hazards (check all that apply):
- [X] Fire
- [ ] Sudden Release of Pressure
- [X] Reactivity
- [X] Immediate (acute)
- [X] Delayed (chronic)

Inventory:
- 04 Max. Daily Amount (code)
- 04 Avg. Daily Amount (code)
- 365 No. of Days On-site (days)

Storage Codes and Locations (Non-Confidential) — Storage Locations

| Container Type | Pressure | Temperature | Storage Locations |
|---|---|---|---|
| D | 1 | 4 | WAREHOUSE, PRODUCTION FLOOR |
| N | 1 | 4 | PRODUCTION FLOOR |
| R | 1 | 4 | PRODUCTION FLOOR - HARDENED STEEL HOPPERS |
| E | 1 | 4 | WAREHOUSE, PRODUCTION FLOOR |
| I | 1 | 4 | WAREHOUSE, PRODUCTION FLOOR |

Optional: ☐

## Chemical 2

CAS: 1344281 Trade Secret: ☐
Chem. Name: ALUMINUM OXIDE
Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [ ] Gas [ ] EHS [ ]
EHS Name:

Physical and Health Hazards (check all that apply):
- [ ] Fire
- [ ] Sudden Release of Pressure
- [ ] Reactivity
- [X] Immediate (acute)
- [X] Delayed (chronic)

Inventory:
- 03 Max. Daily Amount (code)
- 03 Avg. Daily Amount (code)
- 365 No. of Days On-site (days)

Storage Codes and Locations (Non-Confidential) — Storage Locations

| Container Type | Pressure | Temperature | Storage Locations |
|---|---|---|---|
| D | 1 | 4 | WAREHOUSE, PRODUCTION FLOOR |
| N | 1 | 4 | PRODUCTION FLOOR |
| R | 1 | 4 | PRODUCTION FLOOR - HARDENED STEEL HOPPERS |
| E | 1 | 4 | WAREHOUSE, PRODUCTION FLOOR |
| I | 1 | 4 | WAREHOUSE, PRODUCTION FLOOR |

Optional: ☐

## Chemical 3

CAS: 1314234 Trade Secret: ☐
Chem. Name: ZIRCONIUM OXIDE
Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [ ] Gas [ ] EHS [ ]
EHS Name:

Physical and Health Hazards (check all that apply):
- [ ] Fire
- [ ] Sudden Release of Pressure
- [ ] Reactivity
- [X] Immediate (acute)
- [ ] Delayed (chronic)

Inventory:
- 04 Max. Daily Amount (code)
- 04 Avg. Daily Amount (code)
- 365 No. of Days On-site (days)

Storage Codes and Locations (Non-Confidential) — Storage Locations

| Container Type | Pressure | Temperature | Storage Locations |
|---|---|---|---|
| D | 1 | 4 | WAREHOUSE, PRODUCTION FLOOR |
| N | 1 | 4 | PRODUCTION FLOOR |
| R | 1 | 4 | PRODUCTION FLOOR - HARDENED STEEL HOPPERS |
| E | 1 | 4 | WAREHOUSE, PRODUCTION FLOOR |
| I | 1 | 4 | WAREHOUSE, PRODUCTION FLOOR |

Optional: ☐

**Certification** *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 3 and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete

JOSEPH REARDON, Ph.D. SENIOR MANAGER X 04-27-95

Name and official title of owner operator OR owner operator's authorized representative — Signature — Date signed

**Optional Attachments**

- ☐ I have attached a site plan
- ☐ I have attached a list of site coordinate abbreviations
- ☐ I have attached a description of dikes and other safeguard measures

WORK COPY MP


Form Approved OMB No 2050-0072

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*Important: Read all instructions before completing form*

Reporting Period From January 1 to December 31, 19 94

☐ Check if information below is identical to the information submitted last year.

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Storage Codes and Locations (Non-Confidential) — Storage Locations | Optional |
|---|---|---|---|---|
| CAS 26099-71-8 Trade Secret ☐<br>Chem. Name POLYESTER "POD" HOMOPOLYMER<br>Check all that apply: Pure ☒ Mix ☒ Solid ☒ Liquid ☐ Gas ☐ EHS ☐<br>EHS Name | Fire ☐<br>Sudden Release of Pressure ☐<br>Reactivity ☐<br>Immediate (acute) ☒<br>Delayed (chronic) ☒ | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 1 4 WAREHOUSE, PRODUCTION FLOOR<br>N 1 4 PRODUCTION FLOOR<br>R 1 4 PRODUCTION FLOOR - HARDENED STEEL HOPPERS<br>E 1 4 WAREHOUSE, PRODUCTION FLOOR<br>I 1 4 WAREHOUSE, PRODUCTION FLOOR | ☐ |
| CAS ☐ Trade Secret ☐<br>Chem. Name<br>Check all that apply: Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS ☐<br>EHS Name | Fire ☐<br>Sudden Release of Pressure ☐<br>Reactivity ☐<br>Immediate (acute) ☐<br>Delayed (chronic) ☐ | Max. Daily Amount (code)<br>Avg. Daily Amount (code)<br>No. of Days On-site (days) | | ☐ |
| CAS ☐ Trade Secret ☐<br>Chem. Name<br>Check all that apply: Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS ☐<br>EHS Name | Fire ☐<br>Sudden Release of Pressure ☐<br>Reactivity ☐<br>Immediate (acute) ☐<br>Delayed (chronic) ☐ | Max. Daily Amount (code)<br>Avg. Daily Amount (code)<br>No. of Days On-site (days) | | ☐ |

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JOSEPH REARDON, Ph.D. SENIOR MANAGER
Name and official title of owner/operator OR owner/operator's authorized representative

Signature

04-27-95
Date signed

**Optional Attachments**

☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

QUERY:XCESS
DATE: 4/25/95
PAGE: 6

| B/P Cd | Item No | Item Description | On Hand | Qty Avl | Extended Cost | Extended Avail Cost |
|---|---|---|---|---|---|---|
| H | 12PB10592 | UNICHROME LACQUER | 189.00 | 143.10 | 3,502.17 | 2,651.64 |
| W | 12PB29206 | CO—W.C/17% COBALT | .00 | 770.00- | .00 | .00 |
| H | 12PB23551 | CO—WC/CO POWDER | .00 | .00 | .00 | .00 |
| H | 12PB12399 | ALOX WHITE ALUMINA POWDER | .00 | .00 | .00 | .00 |
| H | 12PB09264 | ALOX WHITE ALUMINIA POWDER | .00 | .00 | .00 | .00 |
| H | 12PB11394 | ALOX WHITE ALUMINUM OXIDE | 100.00 | 100.00 | 214.00 | 214.00 |
| H | 12PB19472 | WHITE CAST IRON POWDER | 508.00 | 508.00 | 381.00 | 381.00 |
| H | 12PB21137 | WHITE CAST IRON POWDER | .00 | .00 | .00 | .00 |
| X | 12PB48697 | WHITE CAST IRON POWDER | 260.00 | 260.00 | 390.00 | 390.00 |
| Y | 12PB45994 | YTTR STAB ZIRC OXIDE (HOSP) Z | .00 | .00 | .00 | .00 |
| Y | 12PB33090 | YTTR/STAB/ZIRC/OXIDE-NS-(HOSP) Z | .00 | .00 | .00 | .00 |
| Y | 12PB36416 | YTTR/STAB/ZIRC/OXIDE-NS-(HOSP) Z | .00 | 2,000.00- | .00 | .00 |
| Y | 12PB48599 | YTTR/STAB/ZIRC/OXIDE-NS-(HOSP) Z | .00 | .00 | .00 | .00 |
| Y | 12PB46133 | YTTR/STAB/ZIRC/OXIDE-NS-(SINT) Z | .00 | .00 | .00 | .00 |
| W | 12PB19587 | YTTRIA STAB ZIRC OXIDE (NS) Z | .00 | .00 | .00 | .00 |
| Y | 12PB40881 | YTTRIA STAB ZIRC OXIDE (NS) Z | .00 | .00 | .00 | .00 |
| H | 12PB19584 | YTTRIUM OXIDE POWDER | 1,054.60 | 124.40- | 37,048.10 | .00 |
| W | 12PB33677 | ZIRC./TI/YTT COMP. POWDER Z | .00 | .00 | .00 | .00 |
| H | 12PB06340 Z | ZIRCONIA POWDER Z | 1,835.00 | 1,835.00 | 18,093.10 | 18,093.10 |
| H | 12PB09265 | ZIRCONIA POWDER Z | 300.00 | 300.00 | 3,309.00 | 3,309.00 |
| H | 13PB09732 | ZIRCONIA POWDER Z | 260.00 | 212.00 | 2,503.80 | 2,041.56 |
| H | 12PB49123 | ZIRCONIUM IV 2,2 POWDER Z | 473.00 | 473.00 | 3,949.55 | 3,949.55 |
| W | 12PB12277 | ZIRCONIUM OXIDE POWDER Z | .00 | .00 | .00 | .00 |
| H | 12PB12287 Z | ZIRCONIUM OXIDE POWDER Z | 2,512.00 | 2,883.52 | 5,400.80 | 6,199.57 |
| H | 12PB32728 Z | ZIRCONIUM OXIDE POWDER Z | 6,988.00 | 622.00- | 22,291.72 | .00 |
| H | 12PB34003 Z | ZIRCONIUM OXIDE POWDER Z | 15,936.10 | 5,083.10 | 69,162.67 | 22,060.65 |
| H | 12PB46077 | ZIRCONIUM OXIDE POWDER Z | 4,419.00 | 4,419.00 | 23,818.41 | 23,818.41 |
| Q | 12PB32195 | ZIRCONIUM POWDER Z | 1.00 | 1.00 | 5.89 | 5.89 |
| V | 12PB22804 | 75% ALUM/25% GRAPHITE | .00 | .00 | .00 | .00 |
| | | | | SUM | 3,596,252.75 SUM | 2,942,245.06 |

QUERY:XCESS
DATE: 4/25/95
PAGE: 5

| B/P Cd | Item No | Item Description | On Hand | Qty Avl | Extended Cost | Extended Avail Cost |
|---|---|---|---|---|---|---|
| 5 | 12PB19588 | OFF-SIZE YTTR STAB ZIRC | 1,450.00 | 948.11 | 13,731.50 | 8,978.60 |
| 5 | 12PB19589 | OFF-SIZE YTTR STAB ZIRC | 1,350.00 | 447.09 | 12,784.50 | 4,233.94 |
| 5 | 12PB40877 | OFF-SIZE YTTR ZIRC OXIDE PWDR. | .00 | .00 | .00 | .00 |
| 5 | 12PB12291 | OFF-SIZE ZIRCONIUM | 145.00 | 145.00 | 355.25 | 355.25 |
| 5 | 12PB12292 | OFF-SIZE ZIRCONIUM | .00 | .00 | .00 | .00 |
| 5 | 12PB40879 | OFF-SIZE 203NS YTTR ZIRC OXIDE | 1,247.00 | 1,253.00- | 7,419.65 | .00 |
| 5 | 12PB40880 | OFF-SIZE 203NS YTTR ZIRC OXIDE | 438.00 | 2,062.00- | 2,606.10 | .00 |
| 5 | 12PB44321 | OFFSZE AlSi CLAY NiCrAl(CHAMB) | .00 | .00 | .00 | .00 |
| 5 | 12PB44322 | OFFSZE AlSi CLAY NiCrAl(CYCLO) | .00 | .00 | .00 | .00 |
| W | 12PB108700 | OVEN TUNGSTEN CARB.-COBALT | 5,017.00 | 3,466.00 | 74,452.28 | 51,435.44 |
| H | 12PB21582 | POLY VINYL PYRROLIDONE | 36.00 | .00 | 199.08 | .00 |
| H | 12PB46465 | POLY VINYL PYRROLIDONE (LIQ) | 11,355.24 | 11,025.24 | 7,608.01 | 7,386.91 |
| H | 12PB20906 | SILICA POWDER | 510.00 | 446.00 | 260.10 | 227.46 |
| H | 12PB13141 | SILICON ALUM. ALLOY PWDR. | 10,241.00 | 9,516.00 | 24,271.17 | 22,552.92 |
| H | 12PB27758 | SILICON ALUMINUM POWDER | 1,875.00 | 1,157.00 | 7,931.25 | 4,894.11 |
| W | 12PB50079 | SINTERED MOLYBDENUM POWDER | 450.00 | 450.00 | 5,683.50 | 5,683.50 |
| V | 12PB32624 | STAINLESS STEEL COMP POWDER | .00 | .00 | .00 | .00 |
| H | 12PB03302 | STAINLESS STEEL POWDER | 160.00 | 160.00 | 582.40 | 582.40 |
| H | 12PB03310 | STAINLESS STEEL POWDER | 840.00 | 540.00 | 2,091.60 | 1,344.60 |
| H | 12PB32625 | STAINLESS STEEL POWDER | 1,499.00 | 1,499.00 | 4,991.67 | 4,991.67 |
| H | 12PB42353 | STAINLESS STEEL POWDER | 1,714.00 | 1,714.00 | 9,821.22 | 9,821.22 |
| V | 12PB21773 | STEEL/ALUM/MOLY PWDR | .00 | .00 | .00 | .00 |
| H | 12PB24909 | SUPERFINE ALUMINUM OXIDE PWDR | .00 | .00 | .00 | .00 |
| H | 12PB25775 | T-400 POWDER | 1,260.00 | 1,260.00 | 43,243.20 | 43,243.20 |
| H | 12PB306560 | T-800 POWDER | 200.00 | 200.00 | 5,190.00 | 5,190.00 |
| H | 12PB06906 | TANTALUM PWDR | .00 | .00 | .00 | .00 |
| H | 12PB37558 | TFM 522G MASKING MATERIAL | 485.00 | 485.00 | 7,954.00 | 7,954.00 |
| H | 12PB37557 | THALO BLUE 333 | 24.00 | 24.00 | 360.00 | 360.00 |
| H | 12PB10593 | THINNER | 208.00 | 189.03 | 2,554.24 | 2,321.29 |
| W | 12PB12226 | TITANIA ALUMINA POWDER | 12,000.00 | 12,000.00 | 34,800.00 | 34,800.00 |
| H | 12PB06898 | TITANIUM DIOXIDE POWDER | 125.00 | 125.00 | 828.75 | 828.75 |
| H | 12PB09633 | TITANIUM HYDRIDE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB10696 | TITANIUM-DIOXIDE POWDER | 2,591.00 | 14,909.00- | 3,679.22 | .00 |
| W | 12PB429600 | TUNG CARB/COBL | 424.00 | 424.00 | 6,402.40 | 6,402.40 |
| V | 12PB14563 | TUNG. CARB. NICKEL | .00 | .00 | .00 | .00 |
| W | 12PB26619 | TUNG. CARB. SF ALLOY (OVEN) | .00 | 2,001.00- | .00 | .00 |
| W | 12PB148530 | TUNG. CARB. 17% COBALT | .00 | .00 | .00 | .00 |
| W | 12PB148960 | TUNG. CARB. 17% COBALT | .00 | .00 | .00 | .00 |
| H | 12PB494850 | TUNGS CARBIDE 17% COBALT PWDR | .00 | .00 | .00 | .00 |
| W | 12PB112240 | TUNGSTEN CARB. COBALT | 1,632.00 | 1,632.00 | 25,263.36 | 25,263.36 |
| H | 12PB10707 | TUNGSTEN CARBIDE | 34.00 | 34.00 | 786.42 | 786.42 |
| H | 12PB120090 | TUNGSTEN CARBIDE COBALT POWDER | 58.00 | 4,060.00- | 940.18 | .00 |
| H | 12PB148880 | TUNGSTEN CARBIDE COBALT POWDER | .00 | 3,489.00- | .00 | .00 |
| H | 12PB363710 | TUNGSTEN CARBIDE COBALT POWDER | 10,970.00 | 2,720.00 | 110,797.00 | 27,472.00 |
| H | 12PB423800 | TUNGSTEN CARBIDE COBALT POWDER | .00 | .00 | .00 | .00 |
| H | 12PB432650 | TUNGSTEN CARBIDE COBALT POWDER | .00 | .00 | .00 | .00 |
| H | 12PB10181 | TUNGSTEN CARBIDE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB10898 | TUNGSTEN CARBIDE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB12014 | TUNGSTEN CARBIDE POWDER | 807.00 | 807.00 | 10,716.96 | 10,716.96 |
| H | 12PB42373 | TUNGSTEN CARBIDE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB04693 | TUNGSTEN CARBIDE PWDR | 200.00 | 200.00 | 3,926.00 | 3,926.00 |
| H | 12PB05270 | TUNGSTEN CARBIDE PWDR | 26.60 | 26.60 | 543.97 | 543.97 |
| H | 12PB05885 | TUNGSTEN CARBIDE PWDR | 50.00 | 50.00 | 1,022.50 | 1,022.50 |

QUERY:XCESS
DATE: 4/25/95
PAGE: 4

| B/P Cd | Item No | Item Description | On Hand | Qty Avl | Extended Cost | Extended Avail Cost |
|---|---|---|---|---|---|---|
| H | 12PB26623 N | NICKEL GRAPHITE POWDER | 661.00 | 661.00 | 17,086.85 | 17,086.85 |
| H | 12PB28908 N | NICKEL GRAPHITE POWDER | 120.50 | 120.50 | 2,153.34 | 2,153.34 |
| Q | 12PB09075 — | NICKEL OXIDE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB09768 NI | —NICKEL POWDER | .00 | .00 | .00 | .00 |
| H | 12PB13613 NI | NICKEL POWDER | 2,296.00 | 1,460.00 | 11,548.88 | 7,343.80 |
| H | 13PB09297 NI | —NICKEL POWDER | .00 | .00 | .00 | .00 |
| H | 12PB03290 NI | NICKEL-CHROMIUM ALLOY CR | 5,048.00 | 5,048.00 | 40,636.40 | 40,636.40 |
| H | 12PB09259 NI | NICKEL-CHROMIUM ALLOY POWDER CR | 10,416.00 | 7,441.95 | 84,890.40 | 60,651.89 |
| H | 12PB09260 NI | NICKEL-CHROMIUM ALLOY POWDER CR | 784.00 | 784.00 | 7,110.88 | 7,110.88 |
| H | 12PB09312 NI | NICKEL-CHROMIUM ALLOY POWDER CR | 1,055.00 | 577.00 | 8,798.70 | 4,812.18 |
| H | 12PB05149 NI | NICKEL-CHROMIUM POWDER CR | 327.00 | 327.00 | 2,926.65 | 2,926.65 |
| H | 12PB13810 NI | NICKEL/CHROMIUM ALLOY POWDER CR | 235.00 | 235.00 | 1,654.40 | 1,654.40 |
| H | 12PB32731 | NOPCOSPERSE 44 | 869.00 | 559.00 | 703.89 | 452.79 |
| 5 | 12PB11002 | OFF-SIZE MOLY PWDR | 125.00 | 125.00 | 2,482.50 | 2,482.50 |
| 5 | 12PB11003 | OFF-SIZE MOLY PWDR | 290.00 | 290.00 | 5,759.40 | 5,759.40 |
| 5 | 12PB12228 | OFF-SIZE TITANIUM/ALUM | 260.00 | 260.00 | 325.00 | 325.00 |
| 5 | 12PB37791 | OFF-SIZE CER YTTR ZIRC OXD Z | 600.00 | 600.00 | 4,908.00 | 4,908.00 |
| 5 | 12PB37792 | OFF-SIZE CER YTTR ZIRC OXD Z | 300.00 | 300.00 | 2,454.00 | 2,454.00 |
| 5 | 12PB47424 | OFF-SIZE FINE CHRM OXD (CHAMB) | 490.00 | .00 | 5,806.50 | .00 |
| 5 | 12PB47425 | OFF-SIZE FINE CHRM OXD (CYCLN) | 13,804.00 | .00 | 163,577.40 | .00 |
| 5 | 12PB45840 | OFF-SIZE MAG ZIRC (CYCL-HOSP) Z | .00 | .00 | .00 | .00 |
| 5 | 12PB32732 | OFF-SIZE MAG/ZIRC Z | 1,500.00 | 1,500.00- | 4,935.00 | .00 |
| 5 | 12PB32733 | OFF-SIZE MAG/ZIRC Z | 1,100.00 | 1,500.00- | 3,619.00 | .00 |
| 5 | 12PB11334 | OFF-SIZE MOLYBDENUM POWDER | 525.00 | 525.00 | 10,426.50 | 10,426.50 |
| 5 | 12PB44319 | OFF-SIZE NI CHR AL SIL (CHAMB) N | 117.00 | 117.00 | 1,315.08 | 1,315.08 |
| 5 | 12PB44320 | OFF-SIZE NI CHR AL SIL (CYCLO) N | 60.00 | 60.00 | 674.40 | 674.40 |
| Q | 12PB11551 | OFF-SIZE NICKEL OZIDE N | 50.00 | 50.00 | 201.50 | 201.50 |
| Q | 12PB11552 | OFF-SIZE NICKEL OZIDE N | 240.00 | 240.00 | .00 | .00 |
| 5 | 12PB34564 | OFF-SIZE OVEN BY PRODUCT (ZTY) | .00 | .00 | .00 | .00 |
| 5 | 12PB34565 | OFF-SIZE OVEN BY PRODUCT (ZTY) | 220.00 | 220.00 | 1,766.60 | 1,766.60 |
| 5 | 12PB42216 CO | OFF-SIZE SINT TUNG CARB/COBL | 9,126.00 | 9,126.00 | 57,037.50 | 57,037.50 |
| 5 | 12PB14893 CO | OFF-SIZE TUND-CARB/COBL | 1,045.00 | 455.00- | 20,126.70 | .00 |
| 5 | 12PB14894 CO | OFF-SIZE TUND-CARB/COBL WASHDW | 50.00 | 50.00 | .00 | .00 |
| 5 | 12PB45713 CO | OFF-SIZE TUNG CARB-17% COBL 212A | 1,245.00 | 1,245.00 | 7,781.25 | 7,781.25 |
| 5 | 12PB10875 | OFF-SIZE TUNG-CARB (OVEN) | 5,352.00 | 4,427.00 | 59,995.92 | 49,626.67 |
| 5 | 12PB11386 | OFF-SIZE TUNG-CARB (OVEN) | 340.00 | 3,700.00- | 3,940.60 | .00 |
| 5 | 12PB14331 CO | OFF-SIZE TUNG-CARB/COBL | 19.40 | 1,730.60- | 374.23 | .00 |
| 5 | 12PB14332 CO | OFF-SIZE TUNG-CARB/COBL | 54.22 | 3,445.78- | 1,045.90 | .00 |
| 5 | 12PB14333 CO | OFF-SIZE TUNG-CARB/COBL | 3,880.00 | 3,530.00 | 74,845.20 | 68,093.70 |
| 5 | 12PB10871 CO | OFF-SIZE TUNG-CARB/COBL (OVEN) | 240.00 | 3,650.00- | 2,690.40 | .00 |
| 5 | 12PB11335 CO | —OFF-SIZE TUNG-CARB/COBL (OVEN) | .00 | 4,250.00- | .00 | .00 |
| 5 | 12PB12714 CO | —OFF-SIZE TUNG-CARB/COBL (OVEN) | .00 | 3,750.00- | .00 | .00 |
| 5 | 12PB45839 | OFF-SIZE YT STB ZIR OX(CYCHSP) Z | .00 | .00 | .00 | .00 |
| 5 | 12PB45999 | OFF-SIZE YTR STAB ZIRC OX(CHM) Z | 105.00 | 105.00 | 670.95 | 670.95 |
| 5 | 12PB48604 | OFF-SIZE YTR STAB ZIRC OX(CHM) Z | .00 | .00 | .00 | .00 |
| 5 | 12PB45998 | OFF-SIZE YTR STAB ZIRC OX(CYC) Z | 1,241.00 | 1,241.00 | 7,929.99 | 7,929.99 |
| 5 | 12PB48603 | OFF-SIZE YTR STAB ZIRC OX(CYC) Z | 45.00 | 45.00 | 287.55 | 287.55 |
| 5 | 12PB36411 | OFF-SIZE YTTR STAB ZIR OX(CHM) Z | 100.00 | 1,400.00- | 994.00 | .00 |
| 5 | 12PB33086 | OFF-SIZE YTTR STAB ZIR OX(CYC) Z | .00 | 3,000.00- | .00 | .00 |
| 5 | 12PB36412 | OFF-SIZE YTTR STAB ZIR OX(CYC) Z | 8,260.00 | 8,260.00 | 82,104.40 | 82,104.40 |
| 5 | 12PB49546 | OFF-SIZE YTTR STAB ZIR OX(CYC) Z | 301.00 | 301.00 | 1,604.33 | 1,604.33 |
| 5 | 12PB33085 | OFF-SIZE YTTR STAB ZIR OXIDE Z | 300.00 | 4,700.00- | 2,358.00 | .00 |
| 5 | 12PB49545 | OFF-SIZE YTTR STAB ZIR OXIDE Z | 130.00 | 130.00 | 692.90 | 692.90 |

| B/P Cd | Item No | Item Description | On Hand | Qty Avl | Extended Cost | Extended Avail Cost |
|---|---|---|---|---|---|---|
| H | 12PB32933 | MAGNESIUM ZIRCONATE POWDER | .00 | .00 | .00 | .00 |
| Q | 12PB10659 | MAGNESIUM-ZIRCONATE POWDER | 52.00 | 52.00 | 472.16 | 472.16 |
| H | 12PB26442 | METHANOL | 21.00 | 21.00 | 127.47 | 127.47 |
| V | 12PB15088 | MOLY-NI CHR. ALUM COMP | 1,887.00 | 1,887.00 | 19,983.33 | 19,983.33 |
| V | 12PB21767 | MOLY-NICKEL ALUM. | .00 | .00 | .00 | .00 |
| H | 12PB09261 | MOLYBDENUM POWDER | .00 | .00 | .00 | .00 |
| W | 12PB14594 | MOLYBDENUM POWDER | 907.00 | 907.00 | 21,305.43 | 21,305.43 |
| W | 12PB19074 | MOLYBDENUM POWDER | .00 | .00 | .00 | .00 |
| H | 12PB21768 | MOLYBDENUM POWDER | 3,046.00 | 2,911.00 | 54,066.50 | 51,670.25 |
| W | 12PB15380 | MOLYBDENUM POWDER (OVEN) | .00 | .00 | .00 | .00 |
| W | 12PB11253 | MOLYBDENUM POWDER FINE | 250.00 | 250.00 | 5,580.00 | 5,580.00 |
| H | 12PB28752 | NI CHROMIUM ALUMINUM BENTONITE | 1,098.00 | 1,098.00 | 72,094.68 | 72,094.68 |
| H | 12PB40055 | NI COBALT CHROMIUM ALUM YTTRIA | .00 | .00 | .00 | .00 |
| H | 12PB37477 | NI CR TUNGSTEN MOLYBDENUM PWDR | 500.00 | 510.00 | 5,005.00 | 5,105.10 |
| H | 12PB37885 | NI CR TUNGSTEN MOLYBDENUM PWDR | 440.00 | 450.00 | 4,404.40 | 4,504.50 |
| V | 12PB15085 | NI. BOR. NITRIDE AL. ALLOY | .00 | .00 | .00 | .00 |
| Q | 12PB49150 | NIC CHRM/ALUM BENT (G) | .00 | .00 | .00 | .00 |
| V | 12PB15764 | NIC-ALUM-MOLY | .00 | .00 | .00 | .00 |
| V | 12PB39083 | NIC-CHRM-ALUM-COBL-YTTR | 860.00 | 860.00 | 10,784.40 | 10,784.40 |
| V | 12PB13743 | NIC-CHRM/BORON NIT-ALUM COMP | .00 | .00 | .00 | .00 |
| V | 12PB21772 | NIC/CHRM/MOLY/ALUM | .00 | .00 | .00 | .00 |
| H | 12PB26620 | NICKEL ALLOY | 8,246.00 | 4,530.00 | 67,534.74 | 37,100.70 |
| V | 12PB13612 | NICKEL ALUM. COMP. | 9.00 | 4,991.00- | 76.68 | .00 |
| H | 12PB46455 | NICKEL ALUMINUM ALLOY | 350.00 | 350.00 | 5,908.00 | 5,908.00 |
| H | 12PB34155 | NICKEL ALUMINUM ALLOY POWDER | .00 | 35.02 | .00 | 398.53 |
| V | 12PB25151 | NICKEL ALUMINUM COMPOSITE | .00 | .00 | .00 | .00 |
| H | 12PB43602 | NICKEL BASE POWDER | 322.00 | .00 | 2,534.14 | .00 |
| Q | 12PB06908 | NICKEL BASE SELF-FLUX ALY PWDR | 298.00 | 298.00 | .00 | .00 |
| H | 12PB49511 | NICKEL BASE SELF-FLUX ALY PWDR | 2,639.00 | 1,888.00 | 30,163.77 | 21,579.84 |
| H | 12PB20921 | NICKEL CHROM. ALLOY CRUSH.CR | 200.00 | 200.00 | 2,286.00 | 2,286.00 |
| V | 12PB13255 | NICKEL CHROM. ALUM COMP CR | 53.00 | 53.00 | 603.14 | 603.14 |
| H | 12PB10709 | NICKEL CHROMIUM ALLOY CR | 475.00 | 475.00 | 3,662.25 | 3,662.25 |
| H | 12PB40785 | NICKEL CHROMIUM ALLOY CR | .00 | .00 | .00 | .00 |
| H | 12PB06017 | NICKEL CHROMIUM ALLOY POWDER CR | .00 | .00 | .00 | .00 |
| H | 12PB11906 | NICKEL CHROMIUM ALLOY POWDER CR | 104.00 | 104.00 | 938.08 | 938.08 |
| H | 12PB14465 | NICKEL CHROMIUM ALLOY POWDER CR | .00 | .00 | .00 | .00 |
| H | 12PB14466 | NICKEL CHROMIUM ALLOY POWDER CR | .00 | .00 | .00 | .00 |
| H | 12PB19538 | NICKEL CHROMIUM ALLOY POWDER CR | .00 | .00 | .00 | .00 |
| H | 12PB44298 | NICKEL CHROMIUM ALM ALLOY VF CR | 371.00 | 371.00 | 4,685.73 | 4,685.73 |
| W | 12PB44302 | NICKEL CHROMIUM ALM COMPOSITE CR | 3.00 | 3.00 | 40.68 | 40.68 |
| W | 12PB44301 | NICKEL CHROMIUM ALUMINUM CLAY CR | 27.00 | 27.00 | 379.89 | 379.89 |
| H | 12PB44299 | NICKEL CHROMIUM ALUMINUM FINE CR | 247.00 | 247.00 | 3,119.61 | 3,119.61 |
| H | 12PB42365 | NICKEL CHROMIUM POWDER CR | 4,897.00 | 4,897.00 | 36,580.59 | 36,580.59 |
| H | 12PB13972 | NICKEL CLAD ALUMINUM POWDER | .00 | 50.10 | .00 | 904.31 |
| H | 12PB14008 | NICKEL CLAD ALUMINUM POWDER | 169.50 | 169.50 | 3,362.88 | 3,362.88 |
| H | 12PB09969 | NICKEL CLAD CHROMIUM CARBIDE CR | 125.00 | 125.00 | 3,391.25 | 3,391.25 |
| H | 12PB14494 | NICKEL FLAKE POWDER | 244.00 | 216.00 | 2,252.12 | 1,993.68 |
| H | 12PB13202 | NICKEL GRAPHITE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB13262 | NICKEL GRAPHITE POWDER | 275.00 | 275.00 | 4,727.25 | 4,727.25 |
| H | 12PB13568 | NICKEL GRAPHITE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB20021 | NICKEL GRAPHITE POWDER | .00 | 100.00- | .00 | .00 |
| H | 12PB20024 | NICKEL GRAPHITE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB21070 | NICKEL GRAPHITE POWDER | 992.00 | 992.00 | 19,205.12 | 19,205.12 |

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|---|---|---|---|---|---|---|
| H | 12PB38391 | CHROMIUM OXIDE | .00 | .00 | .00 | .00 |
| H | 12PB39445 | CHROMIUM OXIDE | .00 | .00 | .00 | .00 |
| H | 12PB14568 | CHROMIUM OXIDE POWDER | 1,480.00 | 267.00 | 20,394.40 | 3,679.26 |
| H | 12PB14755 | CHROMIUM OXIDE POWDER | 1,079.00 | 1,079.00 | 14,868.62 | 14,868.62 |
| Q | 12PB47421 | CHROMIUM OXIDE POWDER | 3,420.00 | 3,420.00 | 26,094.60 | 26,094.60 |
| V | 12PB39611 | CHROMIUM OXIDE-SILICA | .00 | .00 | .00 | .00 |
| H | 12PB45946 | CMC 761 | 19,125.16 | 10,886.59 | 22,185.19 | 12,628.44 |
| H | 12PB10548 | COBALT ALLOY POWDER | 725.00 | 745.00 | 19,691.00 | 20,234.20 |
| H | 12PB26109 | COBALT ALLOY POWDER | .00 | .00 | .00 | .00 |
| H | 12PB29811 | COBALT BASE NICKEL CHROMIUM N | 346.00 | 346.00 | 8,186.36 | 8,186.36 |
| H | 12PB10706 | COBALT BASE POWDER | .00 | 698.00- | .00 | .00 |
| H | 12PB49396 | COBALT BASE SUPERALLOY | .00 | .00 | .00 | .00 |
| H | 12PB39803 | COBALT CHROMIUM ALLOY POWDER | .00 | .00 | .00 | .00 |
| H | 12PB44390 | COBALT MOLY CHROMIUM SILICON | .00 | .00 | .00 | .00 |
| H | 12PB05477 | COBALT NICKEL CHROMIUM ALLOY N | 50.00 | 498.00- | 1,163.00 | .00 |
| H | 12PB34417 | COBALT POWDER | 110.00 | 110.00 | 4,881.80 | 4,881.80 |
| H | 12PB40654 | COBL NIC CHRM ALUM YTTR N | 300.00 | 300.00 | 8,376.00 | 8,376.00 |
| H | 12PB11768 | COPPER NICKEL INDIUM POWDER N | 170.00 | 180.00 | 2,946.10 | 3,119.40 |
| H | 12PB36874 | COPPER NICKEL INDIUM POWDER N | 720.00 | 720.00 | 12,477.60 | 12,477.60 |
| H | 12PB34020 | COPPER NICKEL POWDER N | 21.00 | 21.00 | 184.80 | 184.80 |
| H | 12PB06907 | COPPER POWDER | 185.00 | 815.00- | 695.60 | .00 |
| H | 12PB42413 | COPPER POWDER | .00 | .00 | .00 | .00 |
| H | 12PB42396 | CR CARBIDE NI CHROMIUM POWDER | 110.00 | 110.00 | 4,677.20 | 4,677.20 |
| V | 12PB20907 | CROMIA-SILICA COMPOSITE PWDR | 30.00 | 30.00 | 538.20 | 538.20 |
| H | 12PB23538 | EKONOL POLYESTER POWDER | 16,661.00 | 16,620.00 | 1,401,689.93 | 1,398,240.60 |
| Q | 12PB31313 | EPOXY POWDER | 41.00 | 41.00 | 232.06 | 232.06 |
| H | 12PB24746 | EPSOM SALTS | 866.11 | 848.11 | 718.87 | 703.93 |
| H | 12PB40981 | FINE CHROME OXIDE | .00 | .00 | .00 | .00 |
| Q | 12PB47426 | FINE CHROMIUM OXIDE (HOSP) | .00 | .00 | .00 | .00 |
| W | 12PB12712 | FINE TUNGSTEN CARBIDE | .00 | .00 | .00 | .00 |
| H | 12PB19505 | FLAKE GRAPHITE | 1,250.00 | 1,011.00 | 1,937.50 | 1,567.05 |
| H | 12PB26055 | FORMALDEHYDE RESIN | 47.00 | 47.00 | 247.69 | 247.69 |
| H | 12PB32662 | FUMED SILICA | 15.79 | 15.79 | 107.37 | 107.37 |
| H | 12PB15466 N | GRAY ALUMINUM OXIDE POWDER | 925.00 | 925.00 | 1,665.00 | 1,665.00 |
| V | 12PB36397 | H/C IRON-MOLY COMPOSITE PWDR | .00 | .00 | .00 | .00 |
| H | 12PB19474 | H/C IRON-MOLYBDENUM COMP.PDR. | .00 | .00 | .00 | .00 |
| H | 12PB43842 | HIGH PURITY MONOCLINE ZIRCONIA | 27,433.00 | 27,433.00 | 70,228.48 | 70,228.48 |
| H | 12PB42358 | INCO 625 POWDER | .00 | 1,000.00- | .00 | .00 |
| H | 12PB42400 | INCO 718 POWDER | .00 | 300.00- | .00 | .00 |
| H | 12PB42192 | IRON CHROMIUM BORON SILICON | .00 | .00 | .00 | .00 |
| H | 12PB34577 | IRON NICKEL ALLOY POWDER N | 12,416.00 | 3,878.00 | 57,982.72 | 18,110.26 |
| V | 12PB35242 | IRON NICKEL-ALUM-MOLY COMP N | .00 | .00 | .00 | .00 |
| H | 12PB21256 | IRON OXIDE POWDER | 38.00 | 38.00 | 161.50 | 161.50 |
| H | 12PB48226 | IRON-MOLYBDENUM | 253.00 | 253.00 | 2,815.89 | 2,815.89 |
| V | 12PB21774 | IRON/ALUMINUM/MOLYBDENUM | .00 | .00 | .00 | .00 |
| V | 12PB37393 | IRON/MOLY/ALUM COMP N | .00 | .00 | .00 | .00 |
| V | 12PB35371 | IRON/NIC/ALUM COMP. N | .00 | .00 | .00 | .00 |
| H | 12PB23137 | LOW CARBON STEEL POWDER | .00 | .00 | .00 | .00 |
| Y | 12PB32737 | MAG ZIRC PWDR (INTERIM/OVEN) | .00 | .00 | .00 | .00 |
| H | 12PB26585 | MAGNESIA ALUMINA SPINEL | .00 | .00 | .00 | .00 |
| H | 12PB32661 | MAGNESIUM OXIDE POWDER | 1,410.00 | 522.00 | 789.60 | 292.32 |
| Y | 12PB37873 | MAGNESIUM ZIRC (GE SPEC)(HOSP) | .00 | .00 | .00 | .00 |
| Y | 12PB32741 | MAGNESIUM ZIRCONATE NS (HOSP) | 10.00- | 10.00- | 107.00- | .00 |

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|---|---|---|---|---|---|---|
| H | 12PB21862 | ACETIC ACID | 395.12 | 273.12 | 715.17 | 494.35 |
| H | 12PB32546 | ACRYLIC EMULSION | 1,000.00 | 1,000.00 | 860.00 | 860.00 |
| H | 12PB29909 | ACRYLOID RESIN | 380.00 | 361.00 | 1,729.00 | 1,642.55 |
| V | 12PB24782 | ALUM CLAD COPPER PWDR | .00 | .00 | .00 | .00 |
| V | 12PB32544 | ALUM. GRAPHITE COMP. PWDR. | 803.00 | 803.00 | 4,753.76 | 4,753.76 |
| V | 12PB31801 | ALUM./GRAPHITECOMP. PWD. | .00 | .00 | .00 | .00 |
| V | 12PB49445 | ALUM-SILICON ALLOY PWDR | .00 | .00 | .00 | .00 |
| V | 12PB35926 | ALUM/BRONZE POLY | .00 | 735.00- | .00 | .00 |
| H | 12PB12222A | ALUMINA POWDER | .00 | 26,250.00- | .00 | .00 |
| V | 12PB10705 | ALUMINA TITANIA COMPOSITE | .00 | .00 | .00 | .00 |
| V | 12PB20902 | ALUMINA-TITANIA COMPOSITE | .00 | .00 | .00 | .00 |
| H | 12PB09847 | ALUMINUM BRONZE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB11263A | ALUMINUM BRONZE POWDER | 67.00 | 298.00- | 326.96 | .00 |
| H | 12PB15577A | ALUMINUM BRONZE POWDER | .00 | .00 | .00 | .00 |
| Q | 12PB33965A | ALUMINUM BRONZE POWDER | 572.00 | 572.00 | 3,146.00 | 3,146.00 |
| H | 12PB33987 | ALUMINUM BRONZE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB34621 | ALUMINUM BRONZE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB34660A | ALUMINUM BRONZE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB49634 | ALUMINUM BRONZE POWDER (NS) | .00 | .00 | .00 | .00 |
| H | 12PB09263A | ALUMINUM OXIDE POWDER | 673.00 | 827.00- | 1,117.18 | .00 |
| H | 12PB10894A | ALUMINUM OXIDE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB11904A | ALUMINUM POWDER | 8,118.00 | 7,158.51 | 25,815.24 | 22,764.06 |
| H | 12PB12107A | ALUMINUM POWDER | .00 | .00 | .00 | .00 |
| H | 12PB13789A | ALUMINUM POWDER | 1,420.00 | 1,420.00 | 10,479.60 | 10,479.60 |
| H | 12PB13819A | ALUMINUM POWDER | .00 | .00 | .00 | .00 |
| H | 12PB24137A | ALUMINUM POWDER | .00 | .00 | .00 | .00 |
| H | 12PB37575 | ALUMINUM POWDER | 500.00 | 500.00 | 1,190.00 | 1,190.00 |
| H | 13PB09299 | ALUMINUM POWDER | 1,459.00 | 1,417.00 | 3,457.83 | 3,358.29 |
| H | 13PB26905 | ALUMINUM POWDER | 175.00 | 125.00 | 792.75 | 566.25 |
| V | 12PB49405 | ALUMINUM SILICON-BORON NIT COM | .00 | .00 | .00 | .00 |
| H | 12PB29910 | AMMONIUM HYDROXIDE | 19.00 | 16.00 | 76.19 | 64.16 |
| H | 12PB19473 | AMORPHOUS BORON POWDER | .00 | .00 | .00 | .00 |
| H | 12PB37440 | BABBITT POWDER | .00 | .00 | .00 | .00 |
| H | 12PB36641N | BENTONITE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB05896CR | BLENDED NICKEL CHROMIUM ALLOY N | 3,366.00 | 3,366.00 | 27,567.54 | 27,567.54 |
| H | 12PB05897CR | BLENDED NICKEL CHROMIUM ALLOY N | 937.00 | 937.00 | 8,020.72 | 8,020.72 |
| H | 12PB10312CR | BLENDED NICKEL CHROMIUM POWDER N | 838.00 | 838.00 | 7,500.10 | 7,500.10 |
| H | 12PB11905 | BORON NITRIDE POWDER | 7.00 | 7.00 | 423.01 | 423.01 |
| H | 12PB44300 | CALCINED CLAY | 400.00 | 400.00 | 232.00 | 232.00 |
| H | 12PB12289 | CALCIUM CARBONATE | 388.00 | 388.00 | 962.24 | 962.24 |
| H | 13PB12069 | CARBONYL NICKEL POWDER | 3,878.00 | 1,810.00 | 28,037.94 | 13,086.30 |
| H | 12PB37394 | CAST IRON POWDER | 634.00 | 634.00 | 1,445.52 | 1,445.52 |
| H | 12PB12188 | CELLULOSE GUM | 1,500.00 | 1,500.00 | 6,810.00 | 6,810.00 |
| H | 12PB46845 | CERIA YTTR STAB ZIRC OXIDE Z | .00 | .00 | .00 | .00 |
| Y | 12PB47117 | CERIA/YTTR STAB ZIRC OXIDE Z | 887.00 | 887.00 | 13,287.26 | 13,287.26 |
| Y | 12PB38789 | CERIA/YTTR STAB ZIRC OXIDE (H)Z | .00 | .00 | .00 | .00 |
| H | 12PB37770 | CERIUM OXIDE POWDER | 448.00 | 448.00 | 4,762.24 | 4,762.24 |
| H | 12PB46804CR | CHRM CARB/NIC CHRM (SINTERED) N | 47.00 | 47.00 | 805.11 | 805.11 |
| H | 12PB30310CR | CHROME CARBIDE/NI. CHROME COM | 1,230.00 | 1,230.00 | 18,351.60 | 18,351.60 |
| V | 12PB29914 | CHROMICA-SILICA COMP. | .00 | .00 | .00 | .00 |
| H | 12PB09262CR | CHROMIUM CARBIDE POWDER | 617.00 | 617.00 | 5,454.28 | 5,454.28 |
| Q | 12PB10708CR | CHROMIUM CARBIDE POWDER | .00 | .00 | .00 | .00 |
| H | 12PB32126CR | CHROMIUM CARBIDE POWDER | 1,504.00 | 4,496.00- | 12,919.36 | .00 |

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| B/P Cd | Item No | Item Description | On Hand | YTD Issues |
|---|---|---|---|---|
| H | 12PB10592 | UNICHROME LACQUER | 189.00 | 175.00 |
| W | 12PB29206 | W.C/17% COBALT | .00 | 700.00 |
| H | 12PB23551 | WC/CO POWDER | .00 | 1424.00 |
| H | 12PB12399 | WHITE ALUMINA POWDER | .00 | 300.00 |
| H | 12PB09264 | WHITE ALUMINIA POWDER | .00 | 2100.00 |
| H | 12PB11394 | WHITE ALUMINUM OXIDE | 100.00 | 100.00 |
| H | 12PB19472 | WHITE CAST IRON POWDER | 508.00 | 7200.00 |
| H | 12PB21137 | WHITE CAST IRON POWDER | .00 | .00 |
| X | 12PB48697 | WHITE CAST IRON POWDER | 260.00 | .00 |
| Y | 12PB45994 | YTTR STAB ZIRC OXIDE (HOSP) | .00 | .00 |
| Y | 12PB33090 | YTTR/STAB/ZIRC/OXIDE-NS-(HOSP) | .00 | 10000.00 |
| Y | 12PB36416 | YTTR/STAB/ZIRC/OXIDE-NS-(HOSP) | .00 | 12550.00 |
| Y | 12PB48599 | YTTR/STAB/ZIRC/OXIDE-NS-(HOSP) | .00 | 16270.00 |
| Y | 12PB46133 | YTTR/STAB/ZIRC/OXIDE-NS-(SINT) | .00 | .00 |
| W | 12PB19587 | YTTRIA STAB ZIRC OXIDE (NS) | .00 | .00 |
| Y | 12PB40881 | YTTRIA STAB ZIRC OXIDE (NS) | .00 | 18690.00 |
| H | 12PB19584 | YTTRIUM OXIDE POWDER | 1,054.60 | 7573.00 |
| W | 12PB33677 | ZIRC./TI/YTT COMP. POWDER | .00 | .00 |
| H | 12PB06340 | ZIRCONIA POWDER | 1,835.00 | .00 |
| H | 12PB09265 | ZIRCONIA POWDER | 300.00 | .00 |
| H | 13PB09732 | ZIRCONIA POWDER | 260.00 | 121.00 |
| H | 12PB49123 | ZIRCONIUM IV 2,2 POWDER | 473.00 | .00 |
| W | 12PB12277 | ZIRCONIUM OXIDE POWDER | .00 | .00 |
| H | 12PB12287 | ZIRCONIUM OXIDE POWDER | 2,512.00 | 10300.00 |
| H | 12PB32728 | ZIRCONIUM OXIDE POWDER | 6,988.00 | 23999.00 |
| H | 12PB34003 | ZIRCONIUM OXIDE POWDER | 15,936.10 | 42599.40 |
| H | 12PB46077 | ZIRCONIUM OXIDE POWDER | 4,419.00 | .00 |
| Q | 12PB32195 | ZIRCONIUM POWDER | 1.00 | .00 |
| V | 12PB22804 | 75% ALUM/25% GRAPHITE | .00 | 1755.00 |
| | | SUM | 328,170.34 | SUM 709,598.87 |

| B/P Cd | Item No | Item Description | On Hand | YTD Issues |
|---|---|---|---|---|
| 5 | 12PB19588 | OFF-SIZE YTTR STAB ZIRC | 1,450.00 | 12362.00 |
| 5 | 12PB19589 | OFF-SIZE YTTR STAB ZIRC | 1,350.00 | 1145.00 |
| 5 | 12PB40877 | OFF-SIZE YTTR ZIRC OXIDE PWDR. | .00 | .00 |
| 5 | 12PB12291 | OFF-SIZE ZIRCONIUM | 145.00 | .00 |
| 5 | 12PB12292 | OFF-SIZE ZIRCONIUM | .00 | .00 |
| 5 | 12PB40879 | OFF-SIZE 203NS YTTR ZIRC OXIDE | 1,247.00 | 1247.00- |
| 5 | 12PB40880 | OFF-SIZE 203NS YTTR ZIRC OXIDE | 438.00 | 438.00- |
| 5 | 12PB44321 | OFFSZE AlSi CLAY NiCrAl(CHAMB) | .00 | .00 |
| 5 | 12PB44322 | OFFSZE AlSi CLAY NiCrAl(CYCLO) | .00 | .00 |
| W | 12PB10870 | OVEN TUNGSTEN CARB.-COBALT | 5,017.00 | 4660.00 |
| H | 12PB21582 | POLY VINYL PYRROLIDONE | 36.00 | 2102.00 |
| H | 12PB46465 | POLY VINYL PYRROLIDONE (LIQ) | 11,355.24 | 1938.59 |
| H | 12PB20906 | SILICA POWDER | 510.00 | 420.00 |
| H | 12PB13141 | SILICON ALUM. ALLOY PWDR. | 10,241.00 | 12385.00 |
| H | 12PB27758 | SILICON ALUMINUM POWDER | 1,875.00 | 4400.00 |
| W | 12PB50079 | SINTERED MOLYBDENUM POWDER | 450.00 | .00 |
| V | 12PB32624 | STAINLESS STEEL COMP POWDER | .00 | .00 |
| H | 12PB03302 | STAINLESS STEEL POWDER | 160.00 | 300.00 |
| H | 12PB03310 | STAINLESS STEEL POWDER | 840.00 | 2800.00 |
| H | 12PB32625 | STAINLESS STEEL POWDER | 1,499.00 | .00 |
| H | 12PB42353 | STAINLESS STEEL POWDER | 1,714.00 | 1335.00 |
| V | 12PB21773 | STEEL/ALUM/MOLY PWDR | .00 | 885.00 |
| H | 12PB24909 | SUPERFINE ALUMINUM OXIDE PWDR | .00 | .00 |
| H | 12PB25775 | T-400 POWDER | 1,260.00 | .00 |
| H | 12PB30656 | T-800 POWDER | 200.00 | 769.00 |
| H | 12PB06906 | TANTALUM PWDR | .00 | 22.00 |
| H | 12PB37558 | TFM 522G MASKING MATERIAL | 485.00 | .00 |
| H | 12PB37557 | THALO BLUE 333 | 24.00 | .00 |
| H | 12PB10593 | THINNER | 208.00 | 62.00 |
| W | 12PB12226 | TITANIA ALUMINA POWDER | 12,000.00 | 11000.00 |
| H | 12PB06898 | TITANIUM DIOXIDE POWDER | 125.00 | 3060.00 |
| H | 12PB09633 | TITANIUM HYDRIDE POWDER | .00 | .00 |
| H | 12PB10696 | TITANIUM-DIOXIDE POWDER | 2,591.00 | 15603.00 |
| W | 12PB42960 | TUNG CARB/COBL | 424.00 | 2755.00 |
| V | 12PB14563 | TUNG. CARB. NICKEL | .00 | 795.00 |
| W | 12PB26619 | TUNG. CARB. SF ALLOY (OVEN) | .00 | 5249.00 |
| W | 12PB14853 | TUNG. CARB. 17% COBALT | .00 | 5850.00 |
| W | 12PB14896 | TUNG. CARB. 17% COBALT | .00 | .00 |
| H | 12PB49485 | TUNGS CARBIDE 17% COBALT PWDR | .00 | .00 |
| W | 12PB11224 | TUNGSTEN CARB. COBALT | 1,632.00 | 665.00 |
| H | 12PB10707 | TUNGSTEN CARBIDE | 34.00 | 4018.00 |
| H | 12PB12009 | TUNGSTEN CARBIDE COBALT POWDER | 58.00 | 4118.00 |
| H | 12PB14888 | TUNGSTEN CARBIDE COBALT POWDER | .00 | 3374.00 |
| H | 12PB36371 | TUNGSTEN CARBIDE COBALT POWDER | 10,970.00 | 19250.00 |
| H | 12PB42380 | TUNGSTEN CARBIDE COBALT POWDER | .00 | 100.00 |
| H | 12PB43265 | TUNGSTEN CARBIDE COBALT POWDER | .00 | 1700.00 |
| H | 12PB10181 | TUNGSTEN CARBIDE POWDER | .00 | 1100.00 |
| H | 12PB10898 | TUNGSTEN CARBIDE POWDER | .00 | 488.00 |
| H | 12PB12014 | TUNGSTEN CARBIDE POWDER | 807.00 | .00 |
| H | 12PB42373 | TUNGSTEN CARBIDE POWDER | .00 | 1237.50 |
| H | 12PB04693 | TUNGSTEN CARBIDE PWDR | 200.00 | 1000.00 |
| H | 12PB05270 | TUNGSTEN CARBIDE PWDR | 26.60 | 1000.00 |
| H | 12PB05885 | TUNGSTEN CARBIDE PWDR | 50.00 | 400.00 |

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|---|---|---|---|---|
| H | 12PB26623 | NICKEL GRAPHITE POWDER | 661.00 | .00 |
| H | 12PB28908 | NICKEL GRAPHITE POWDER | 120.50 | 441.00 |
| Q | 12PB09075 | NICKEL OXIDE POWDER | .00 | .00 |
| H | 12PB09768 | NICKEL POWDER | .00 | .00 |
| H | 12PB13613 | NICKEL POWDER | 2,296.00 | 24971.00 |
| H | 13PB09297 | NICKEL POWDER | .00 | .00 |
| H | 12PB03290 | NICKEL-CHROMIUM ALLOY | 5,048.00 | 1582.00 |
| H | 12PB09259 | NICKEL-CHROMIUM ALLOY POWDER | 10,416.00 | 11721.00 |
| H | 12PB09260 | NICKEL-CHROMIUM ALLOY POWDER | 784.00 | 3247.00 |
| H | 12PB09312 | NICKEL-CHROMIUM ALLOY POWDER | 1,055.00 | 4796.00 |
| H | 12PB05149 | NICKEL-CHROMIUM POWDER | 327.00 | 444.00 |
| H | 12PB13810 | NICKEL/CHROMIUM ALLOY POWDER | 235.00 | 4066.00 |
| H | 12PB32731 | NOPCOSPERSE 44 | 869.00 | 1123.00 |
| 5 | 12PB11002 | OFF-SIZE MOLY PWDR | 125.00 | .00 |
| 5 | 12PB11003 | OFF-SIZE MOLY PWDR | 290.00 | .00 |
| 5 | 12PB12228 | OFF-SIZE TITANIUM/ALUM | 260.00 | .00 |
| 5 | 12PB37791 | OFF-SIZE CER YTTR ZIRC OXD | 600.00 | .00 |
| 5 | 12PB37792 | OFF-SIZE CER YTTR ZIRC OXD | 300.00 | .00 |
| 5 | 12PB47424 | OFF-SIZE FINE CHRM OXD (CHAMB) | 490.00 | .00 |
| 5 | 12PB47425 | OFF-SIZE FINE CHRM OXD (CYCLN) | 13,804.00 | .00 |
| 5 | 12PB45840 | OFF-SIZE MAG ZIRC (CYCL-HOSP) | .00 | 23726.00 |
| 5 | 12PB32732 | OFF-SIZE MAG/ZIRC | 1,500.00 | 1043.00- |
| 5 | 12PB32733 | OFF-SIZE MAG/ZIRC | 1,100.00 | 87.00 |
| 5 | 12PB11334 | OFF-SIZE MOLYBDENUM POWDER | 525.00 | .00 |
| 5 | 12PB44319 | OFF-SIZE NI CHR AL SIL (CHAMB) | 117.00 | .00 |
| 5 | 12PB44320 | OFF-SIZE NI CHR AL SIL (CYCLO) | 60.00 | .00 |
| Q | 12PB11551 | OFF-SIZE NICKEL OZIDE | 50.00 | .00 |
| Q | 12PB11552 | OFF-SIZE NICKEL OZIDE | 240.00 | .00 |
| 5 | 12PB34564 | OFF-SIZE OVEN BY PRODUCT (ZTY) | .00 | .00 |
| 5 | 12PB34565 | OFF-SIZE OVEN BY PRODUCT (ZTY) | 220.00 | .00 |
| 5 | 12PB42216 | OFF-SIZE SINT TUNG CARB/COBL | 9,126.00 | 935.00- |
| 5 | 12PB14893 | OFF-SIZE TUND-CARB/COBL | 1,045.00 | 355.00 |
| 5 | 12PB14894 | OFF-SIZE TUND-CARB/COBL WASHDW | 50.00 | 50.00- |
| 5 | 12PB45713 | OFF-SIZE TUNG CARB-17% COBL | 1,245.00 | .00 |
| 5 | 12PB10875 | OFF-SIZE TUNG-CARB (OVEN) | 5,352.00 | 414.00 |
| 5 | 12PB11386 | OFF-SIZE TUNG-CARB (OVEN) | 340.00 | 340.00- |
| 5 | 12PB14331 | OFF-SIZE TUNG-CARB/COBL | 19.40 | 19.40- |
| 5 | 12PB14332 | OFF-SIZE TUNG-CARB/COBL | 54.22 | 125.78 |
| 5 | 12PB14333 | OFF-SIZE TUNG-CARB/COBL | 3,880.00 | 90.00 |
| 5 | 12PB10871 | OFF-SIZE TUNG-CARB/COBL (OVEN) | 240.00 | 240.00- |
| 5 | 12PB11335 | OFF-SIZE TUNG-CARB/COBL (OVEN) | .00 | .00 |
| 5 | 12PB12714 | OFF-SIZE TUNG-CARB/COBL (OVEN) | .00 | .00 |
| 5 | 12PB45839 | OFF-SIZE YT STB ZIR OX(CYCHSP) | .00 | 48995.00 |
| 5 | 12PB45999 | OFF-SIZE YTR STAB ZIRC OX(CHM) | 105.00 | .00 |
| 5 | 12PB48604 | OFF-SIZE YTR STAB ZIRC OX(CHM) | .00 | .00 |
| 5 | 12PB45998 | OFF-SIZE YTR STAB ZIRC OX(CYC) | 1,241.00 | .00 |
| 5 | 12PB48603 | OFF-SIZE YTR STAB ZIRC OX(CYC) | 45.00 | 45.00- |
| 5 | 12PB36411 | OFF-SIZE YTTR STAB ZIR OX(CHM) | 100.00 | 5250.00 |
| 5 | 12PB33086 | OFF-SIZE YTTR STAB ZIR OX(CYC) | .00 | 100.00 |
| 5 | 12PB36412 | OFF-SIZE YTTR STAB ZIR OX(CYC) | 8,260.00 | 2635.00 |
| 5 | 12PB49546 | OFF-SIZE YTTR STAB ZIR OX(CYC) | 301.00 | .00 |
| 5 | 12PB33085 | OFF-SIZE YTTR STAB ZIR OXIDE | 300.00 | 200.00- |
| 5 | 12PB49545 | OFF-SIZE YTTR STAB ZIR OXIDE | 130.00 | .00 |

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|---|---|---|---|---|
| H | 12PB32933 | MAGNESIUM ZIRCONATE POWDER | .00 | 900.00 |
| Q | 12PB10659 | MAGNESIUM-ZIRCONATE POWDER | 52.00 | .00 |
| H | 12PB26442 | METHANOL | 21.00 | 326.00 |
| V | 12PB15088 | MOLY-NI CHR. ALUM COMP | 1,887.00 | 2634.00 |
| V | 12PB21767 | MOLY-NICKEL ALUM. | .00 | 8907.00 |
| H | 12PB09261 | MOLYBDENUM POWDER | .00 | 3200.00 |
| W | 12PB14594 | MOLYBDENUM POWDER | 907.00 | .00 |
| W | 12PB19074 | MOLYBDENUM POWDER | .00 | .00 |
| H | 12PB21768 | MOLYBDENUM POWDER | 3,046.00 | 3001.00 |
| W | 12PB15380 | MOLYBDENUM POWDER (OVEN) | .00 | .00 |
| W | 12PB11253 | MOLYBDENUM POWDER FINE | 250.00 | .00 |
| H | 12PB28752 | NI CHROMIUM ALUMINUM BENTONITE | 1,098.00 | 5680.00 |
| H | 12PB40055 | NI COBALT CHROMIUM ALUM YTTRIA | .00 | .00 |
| H | 12PB37477 | NI CR TUNGSTEN MOLYBDENUM PWDR | 500.00 | .00 |
| H | 12PB37885 | NI CR TUNGSTEN MOLYBDENUM PWDR | 440.00 | .00 |
| V | 12PB15085 | NI. BOR. NITRIDE AL. ALLOY | .00 | .00 |
| Q | 12PB49150 | NIC CHRM/ALUM BENT (G) | .00 | .00 |
| V | 12PB15764 | NIC-ALUM-MOLY | .00 | .00 |
| V | 12PB39083 | NIC-CHRM-ALUM-COBL-YTTR | 860.00 | 2244.00 |
| V | 12PB13743 | NIC-CHRM/BORON NIT-ALUM COMP | .00 | 1800.00 |
| V | 12PB21772 | NIC/CHRM/MOLY/ALUM | .00 | 2565.00 |
| H | 12PB26620 | NICKEL ALLOY | 8,246.00 | 9748.00 |
| V | 12PB13612 | NICKEL ALUM. COMP. | 9.00 | 14824.00 |
| H | 12PB46455 | NICKEL ALUMINUM ALLOY | 350.00 | 746.00 |
| H | 12PB34155 | NICKEL ALUMINUM ALLOY POWDER | .00 | 6321.00 |
| V | 12PB25151 | NICKEL ALUMINUM COMPOSITE | .00 | .00 |
| H | 12PB43602 | NICKEL BASE POWDER | 322.00 | 4646.00 |
| Q | 12PB06908 | NICKEL BASE SELF-FLUX ALY PWDR | 298.00 | .00 |
| H | 12PB49511 | NICKEL BASE SELF-FLUX ALY PWDR | 2,639.00 | 2890.00 |
| H | 12PB20921 | NICKEL CHROM. ALLOY CRUSH. | 200.00 | 2254.00 |
| V | 12PB13255 | NICKEL CHROM. ALUM COMP | 53.00 | 6427.00 |
| H | 12PB10709 | NICKEL CHROMIUM ALLOY | 475.00 | 2476.00 |
| H | 12PB40785 | NICKEL CHROMIUM ALLOY | .00 | .00 |
| H | 12PB06017 | NICKEL CHROMIUM ALLOY POWDER | .00 | .00 |
| H | 12PB11906 | NICKEL CHROMIUM ALLOY POWDER | 104.00 | 3563.00 |
| H | 12PB14465 | NICKEL CHROMIUM ALLOY POWDER | .00 | .00 |
| H | 12PB14466 | NICKEL CHROMIUM ALLOY POWDER | .00 | .00 |
| H | 12PB19538 | NICKEL CHROMIUM ALLOY POWDER | .00 | 900.00 |
| H | 12PB44298 | NICKEL CHROMIUM ALM ALLOY VF | 371.00 | .00 |
| W | 12PB44302 | NICKEL CHROMIUM ALM COMPOSITE | 3.00 | .00 |
| W | 12PB44301 | NICKEL CHROMIUM ALUMINUM CLAY | 27.00 | .00 |
| H | 12PB44299 | NICKEL CHROMIUM ALUMINUM FINE | 247.00 | .00 |
| H | 12PB42365 | NICKEL CHROMIUM POWDER | 4,897.00 | 1400.00 |
| H | 12PB13972 | NICKEL CLAD ALUMINUM POWDER | .00 | 5023.00 |
| H | 12PB14008 | NICKEL CLAD ALUMINUM POWDER | 169.50 | 74.00 |
| H | 12PB09969 | NICKEL CLAD CHROMIUM CARBIDE | 125.00 | 444.00 |
| H | 12PB14494 | NICKEL FLAKE POWDER | 244.00 | .00 |
| H | 12PB13202 | NICKEL GRAPHITE POWDER | .00 | 5456.00 |
| H | 12PB13262 | NICKEL GRAPHITE POWDER | 275.00 | .00 |
| H | 12PB13568 | NICKEL GRAPHITE POWDER | .00 | 2425.00 |
| H | 12PB20021 | NICKEL GRAPHITE POWDER | .00 | 661.00 |
| H | 12PB20024 | NICKEL GRAPHITE POWDER | .00 | .00 |
| H | 12PB21070 | NICKEL GRAPHITE POWDER | 992.00 | 3472.50 |

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|---|---|---|---|---|
| H | 12PB38391 | CHROMIUM OXIDE | .00 | .00 |
| H | 12PB39445 | CHROMIUM OXIDE | .00 | .00 |
| H | 12PB14568 | CHROMIUM OXIDE POWDER | 1,480.00 | 4460.00 |
| H | 12PB14755 | CHROMIUM OXIDE POWDER | 1,079.00 | 5364.00 |
| Q | 12PB47421 | CHROMIUM OXIDE POWDER | 3,420.00 | .00 |
| V | 12PB39611 | CHROMIUM OXIDE-SILICA | .00 | .00 |
| H | 12PB45946 | CMC 761 | 19,125.16 | 21962.84 |
| H | 12PB10548 | COBALT ALLOY POWDER | 725.00 | 1348.00 |
| H | 12PB26109 | COBALT ALLOY POWDER | .00 | .00 |
| H | 12PB29811 | COBALT BASE NICKEL CHROMIUM | 346.00 | 222.00 |
| H | 12PB10706 | COBALT BASE POWDER | .00 | 300.00 |
| H | 12PB49396 | COBALT BASE SUPERALLOY | .00 | .00 |
| H | 12PB39803 | COBALT CHROMIUM ALLOY POWDER | .00 | .00 |
| H | 12PB44390 | COBALT MOLY CHROMIUM SILICON | .00 | .00 |
| H | 12PB05477 | COBALT NICKEL CHROMIUM ALLOY | 50.00 | 200.00 |
| H | 12PB34417 | COBALT POWDER | 110.00 | 168.00 |
| H | 12PB40654 | COBL NIC CHRM ALUM YTTR | 300.00 | .00 |
| H | 12PB11768 | COPPER NICKEL INDIUM POWDER | 170.00 | 2651.00 |
| H | 12PB36874 | COPPER NICKEL INDIUM POWDER | 720.00 | .00 |
| H | 12PB34020 | COPPER NICKEL POWDER | 21.00 | 1201.00 |
| H | 12PB06907 | COPPER POWDER | 185.00 | 4325.00 |
| H | 12PB42413 | COPPER POWDER | .00 | .00 |
| H | 12PB42396 | CR CARBIDE NI CHROMIUM POWDER | 110.00 | 2838.00 |
| V | 12PB20907 | CROMIA-SILICA COMPOSITE PWDR | 30.00 | 6475.00 |
| H | 12PB23538 | EKONOL POLYESTER POWDER | 16,661.00 | 8352.00 |
| Q | 12PB31313 | EPOXY POWDER | 41.00 | .00 |
| H | 12PB24746 | EPSOM SALTS | 866.11 | 171.64 |
| H | 12PB40981 | FINE CHROME OXIDE | .00 | .00 |
| Q | 12PB47426 | FINE CHROMIUM OXIDE (HOSP) | .00 | .00 |
| W | 12PB12712 | FINE TUNGSTEN CARBIDE | .00 | .00 |
| H | 12PB19505 | FLAKE GRAPHITE | 1,250.00 | 4300.00 |
| H | 12PB26055 | FORMALDEHYDE RESIN | 47.00 | 99.00 |
| H | 12PB32662 | FUMED SILICA | 15.79 | .00 |
| H | 12PB15466 | GRAY ALUMINUM OXIDE POWDER | 925.00 | 670.00 |
| V | 12PB36397 | H/C IRON-MOLY COMPOSITE PWDR | .00 | 4750.00 |
| H | 12PB19474 | H/C IRON-MOLYBDENUM COMP.PDR. | .00 | .00 |
| H | 12PB43842 | HIGH PURITY MONOCLINE ZIRCONIA | 27,433.00 | .00 |
| H | 12PB42358 | INCO 625 POWDER | .00 | .00 |
| H | 12PB42400 | INCO 718 POWDER | .00 | .00 |
| H | 12PB42192 | IRON CHROMIUM BORON SILICON | .00 | 405.00 |
| H | 12PB34577 | IRON NICKEL ALLOY POWDER | 12,416.00 | 10376.00 |
| V | 12PB35242 | IRON NICKEL-ALUM-MOLY COMP | .00 | 2615.00 |
| H | 12PB21256 | IRON OXIDE POWDER | 38.00 | .00 |
| H | 12PB48226 | IRON-MOLYBDENUM | 253.00 | 6.00 |
| V | 12PB21774 | IRON/ALUMINUM/MOLYBDENUM | .00 | .00 |
| V | 12PB37393 | IRON/MOLY/ALUM COMP | .00 | .00 |
| V | 12PB35371 | IRON/NIC/ALUM COMP. | .00 | 8790.00 |
| H | 12PB23137 | LOW CARBON STEEL POWDER | .00 | 926.00 |
| Y | 12PB32737 | MAG ZIRC PWDR (INTERIM/OVEN) | .00 | .00 |
| H | 12PB26585 | MAGNESIA ALUMINA SPINEL | .00 | .00 |
| H | 12PB32661 | MAGNESIUM OXIDE POWDER | 1,410.00 | 2368.00 |
| Y | 12PB37873 | MAGNESIUM ZIRC (GE SPEC)(HOSP) | .00 | .00 |
| Y | 12PB32741 | MAGNESIUM ZIRCONATE NS (HOSP) | 10.00- | 5910.00 |

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|---|---|---|---|---|
| H | 12PB21862 | ACETIC ACID | 395.12 | 249.23- |
| H | 12PB32546 | ACRYLIC EMULSION | 1,000.00 | 20.00 |
| H | 12PB29909 | ACRYLOID RESIN | 380.00 | 86.00 |
| V | 12PB24782 | ALUM CLAD COPPER PWDR | .00 | 2560.00 |
| V | 12PB32544 | ALUM. GRAPHITE COMP. PWDR. | 803.00 | .00 |
| V | 12PB31801 | ALUM./GRAPHITECOMP. PWD. | .00 | 4790.00 |
| V | 12PB49445 | ALUM-SILICON ALLOY PWDR | .00 | .00 |
| V | 12PB35926 | ALUM/BRONZE POLY | .00 | .00 |
| H | 12PB12222 | ALUMINA POWDER | .00 | 22500.00 |
| V | 12PB10705 | ALUMINA TITANIA COMPOSITE | .00 | 2720.00 |
| V | 12PB20902 | ALUMINA-TITANIA COMPOSITE | .00 | .00 |
| H | 12PB09847 | ALUMINUM BRONZE POWDER | .00 | .00 |
| H | 12PB11263 | ALUMINUM BRONZE POWDER | 67.00 | 2533.00 |
| H | 12PB15577 | ALUMINUM BRONZE POWDER | .00 | 700.00 |
| Q | 12PB33965 | ALUMINUM BRONZE POWDER | 572.00 | .00 |
| H | 12PB33987 | ALUMINUM BRONZE POWDER | .00 | .00 |
| H | 12PB34621 | ALUMINUM BRONZE POWDER | .00 | .00 |
| H | 12PB34660 | ALUMINUM BRONZE POWDER | .00 | .00 |
| H | 12PB49634 | ALUMINUM BRONZE POWDER (NS) | .00 | .00 |
| H | 12PB09263 | ALUMINUM OXIDE POWDER | 673.00 | 10714.00 |
| H | 12PB10894 | ALUMINUM OXIDE POWDER | .00 | 2000.00 |
| H | 12PB11904 | ALUMINUM POWDER | 8,118.00 | 4183.50 |
| H | 12PB12107 | ALUMINUM POWDER | .00 | 3000.00 |
| H | 12PB13789 | ALUMINUM POWDER | 1,420.00 | .00 |
| H | 12PB13819 | ALUMINUM POWDER | .00 | 300.00 |
| H | 12PB24137 | ALUMINUM POWDER | .00 | 1000.00 |
| H | 12PB37575 | ALUMINUM POWDER | 500.00 | .00 |
| H | 13PB09299 | ALUMINUM POWDER | 1,459.00 | 318.00 |
| H | 13PB26905 | ALUMINUM POWDER | 175.00 | 75.00 |
| V | 12PB49405 | ALUMINUM SILICON-BORON NIT COM | .00 | .00 |
| H | 12PB29910 | AMMONIUM HYDROXIDE | 19.00 | 9.00 |
| H | 12PB19473 | AMORPHOUS BORON POWDER | .00 | 90.00 |
| H | 12PB37440 | BABBITT POWDER | .00 | .00 |
| H | 12PB36641 | BENTONITE POWDER | .00 | 6007.75 |
| H | 12PB05896 | BLENDED NICKEL CHROMIUM ALLOY | 3,366.00 | 1750.00 |
| H | 12PB05897 | BLENDED NICKEL CHROMIUM ALLOY | 937.00 | 1000.00 |
| H | 12PB10312 | BLENDED NICKEL CHROMIUM POWDER | 838.00 | 234.00 |
| H | 12PB11905 | BORON NITRIDE POWDER | 7.00 | 209.00 |
| H | 12PB44300 | CALCINED CLAY | 400.00 | .00 |
| H | 12PB12289 | CALCIUM CARBONATE | 388.00 | .00 |
| H | 13PB12069 | CARBONYL NICKEL POWDER | 3,878.00 | 6632.00 |
| H | 12PB37394 | CAST IRON POWDER | 634.00 | .00 |
| H | 12PB12188 | CELLULOSE GUM | 1,500.00 | 3000.00 |
| H | 12PB46845 | CERIA YTTR STAB ZIRC OXIDE | .00 | .00 |
| Y | 12PB47117 | CERIA/YTTR STAB ZIRC OXIDE | 887.00 | .00 |
| Y | 12PB38789 | CERIA/YTTR STAB ZIRC OXIDE (H) | .00 | .00 |
| H | 12PB37770 | CERIUM OXIDE POWDER | 448.00 | .00 |
| H | 12PB46804 | CHRM CARB/NIC CHRM (SINTERED) | 47.00 | .00 |
| H | 12PB30310 | CHROME CARBIDE/NI. CHROME COM | 1,230.00 | .00 |
| V | 12PB29914 | CHROMICA-SILICA COMP. | .00 | 2315.00 |
| H | 12PB09262 | CHROMIUM CARBIDE POWDER | 617.00 | 4950.00 |
| Q | 12PB10708 | CHROMIUM CARBIDE POWDER | .00 | .00 |
| H | 12PB32126 | CHROMIUM CARBIDE POWDER | 1,504.00 | 5975.00 |

THOMAS S. GULOTTA
COUNTY EXECUTIVE

NASSAU COUNTY LOCAL EMERGENCY PLANNING COMMITTEE
140 15TH STREET
MINEOLA, NEW YORK 11501-4818
516 573-7524 FAX 573-7525

January 17, 2000

Dear SARA TITLE III Facility Emergency Coordinator:

To assist those facilities subject to the various reporting requirements of Title III (Emergency Planning and Community Right-To- Know Act, or EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Nassau County Local Emergency Planning Committee (LEPC) is distributing updated copies of the EPA Tier Two Chemical Inventory Forms that must be submitted on an annual basis to meet the requirements of Section 312 of the EPCRA. (The Tier Two Chemical Inventory form is the one that the Nassau County LEPC has chosen to use). This form must be returned to the LEPC by March 1st of each year. It is suggested that you duplicate the inventory pages for future submissions.

Please read the instruction sheets carefully as some information in Table I and II have changed since the original forms were developed in 1986. Make sure all information provided is legible and accurate.

In addition to requiring the submission of all chemical inventory information on an EPA Tier Two Form, the Nassau County LEPC is asking all facilities to provide us with a fax number for your facility that will enable us to communicate with you in a timely manner. There have been situations during the recent years when it would have been advantageous to contact all facilities with important information via a fax notification

If you have specific questions about the responsibilities of your facility regarding SARA Title III, or would like any of the various EPA publications that may address your questions and concerns, please contact the EPA at *1 - 800 - 490 - 9198.* For general information, please contact the Nassau County LEPC by using the address or phone number located at the top of this page.

Gordon F. Stevens
Co-Chair
Nassau County LEPC

Peter W. Meade
Co-Chair
Nassau County LEPC

# EPA TIER TWO INSTRUCTIONS

## GENERAL INFORMATION

Submission of this Tier Two form (when requested) is required by Title III of the Superfund Amendments and Reauthorization Act of 1986, Section 312, Public Law 99-499, codified at 42 U.S.C. Section 11022. The purpose of this Tier Two form is to provide State and local officials and the public with specific information on hazardous chemicals present at your facility during the past year.

### CERTIFICATION

The owner or operator or the officially designated representative of the owner or operator must certify that all information included in the Tier Two submission is true, accurate, and complete. On the first page of the Tier Two report, enter your full name and official title. Sign your name and enter the current date. Also, enter the total number of pages included in the Confidential and Non-Confidential Information Sheets as well as all attachments. An original signature is required on at least the first page of the submission. Submissions to the SERC, LEPC, and fire department must each contain an original signature on at least the first page. Subsequent pages must contain either an original signature, a photocopy of the original signature, or a signature stamp. Each page must contain the date on which the original signature was affixed to the first page of the submission and the total number of pages in the submission.

**YOU MUST PROVIDE ALL INFORMATION REQUESTED ON THIS FORM TO FULFILL TIER TWO REPORTING REQUIREMENTS.**

This form may also be used as a worksheet for completing the Tier One form or may be submitted in place of the Tier One form.

### WHO MUST SUBMIT THIS FORM

Section 312 of Title III requires that the owner or operator of a facility submit their Tier Two form if so requested by a State emergency response commission, a local emergency planning committee, or a fire department with jurisdiction over the facility.

This request may apply to the owner or operator of any facility that is required, under regulations implementing the Occupational Safety and Health Act of 1970, to prepare or have available a Material Safety Data Sheet (MSDS) for a hazardous chemical present at the facility. MSDS requirements are specified in the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, found in Title 29 of the Code of Federal Regulations at §1910.1200.

This form does not have to be submitted if all of the chemicals located at your facility are excluded under Section 311(e) of Title III.

### WHAT CHEMICALS ARE INCLUDED

If you are submitting Tier Two forms in lieu of Tier One, you must report the required information on this Tier Two form for each hazardous chemical present at your facility in quantities equal to or greater than established threshold amounts (discussed below), unless the chemicals are excluded under Section 311(e) of Title III. Hazardous chemicals are any substance for which your facility must maintain an MSDS under OSHA's Hazard Communication Standard.

If you elect to submit Tier One rather than Tier Two, you may still be required to submit Tier Two information upon request.

### WHAT CHEMICALS ARE EXCLUDED

Section 311(e) of Title III excludes the following substances:

(I) Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration;

(II) Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use;

(III) Any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public;

(IV) Any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual;

(V) Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer.

OSHA regulations, Section 1910.1200(b), stipulate exemptions from the requirement to prepare to have available an MSDS.

### REPORTING THRESHOLDS

Minimum thresholds have been established for Tier One/ Tier Two reporting under Title III, Section 312. These thresholds are as follows:

For Extremely Hazardous Substances (EHSs) designated under Section 302 of Title III, the reporting threshold is 500 pounds (or 227 kg.) or the threshold planning quantity (TPQ), whichever is lower.

For all other hazardous chemicals for which facilities are required to have or prepare an MSDS, the minimum reporting threshold is 10,000 pounds (or 4,540 kg.).

You need to report hazardous chemicals that were present at your facility at any time during the previous calendar year at levels that equal or exceed these thresholds. For instructions on threshold determinations for components of mixtures, see "What About Mixtures?" on page 2 of these instructions.

A requesting official may limit the responses required under Tier Two by specifying particular chemicals or groups of chemicals. Such requests apply to hazardous chemicals regardless of established thresholds.



P2SUL005062

## CHEMICAL DESCRIPTION

1. Enter the Chemical Abstract Service registry number (CAS). For mixtures, enter the CAS number of the mixture as a whole if it has been assigned a number distinct from its constituents. For a mixture that has no CAS number, leave this item blank or report the CAS numbers of as many constituent chemicals as possible.

   If you are withholding the name of a chemical in accordance with criteria specified in Title III, Section 322, enter the generic class or category that is structurally descriptive of the chemical (e.g., list toulene diisocyanate as organic isocyanate) and check the box marked Trade Secret. Trade secret information should be submitted to EPA and must include a substantiation. Please refer to EPA's final regulation on trade secrecy (53 FR 28772, July 29, 1988) for detailed information on how to submit trade secrecy claims.

2. Enter the chemical name or common name of each hazardous chemical.

3. Check box for *ALL* applicable descriptors: pure or mixture; *and* solid, liquid, or gas; and whether the chemical is or contains an EHS.

4. If the chemical is a mixture containing an EHS, enter the chemical name of each EHS in the mixture.

**EXAMPLE:**

You have pure chlorine gas on hand, as well as two mixtures that contain liquid chlorine. You write "chlorine" and enter the CAS number. Then you check "pure" *and* "mix" -- as well as "liquid" *and* "gas".

## PHYSICAL AND HEALTH HAZARDS

For each chemical you have listed, check all the physical and health hazard boxes that apply. These hazard categories are defined in 40 CFR 370.2. The two health hazard categories and three physical hazard categories are a consolidation of the 23 hazard categories defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Hazard Category Comparison For Reporting Under Sections 311 and 312

| EPA's Hazard Categories | OSHA's Hazard Categories |
|---|---|
| Fire Hazard | Flammable<br>Combustion Liquid<br>Pyrophoric<br>Oxidizer |
| Sudden Release of Pressure | Explosive<br>Compressed Gas |
| Reactive | Unstable Reactive<br>Organic Peroxide<br>Water Reactive |
| Immediate (Acute) Health Hazards | Highly Toxic<br>Toxic<br>Irritant<br>Sensitizer<br>Corrosive |
| | Other hazardous chemicals with an adverse effect with short term exposure |
| Delayed (Chronic) Health Hazard | Carcinogens |
| | Other hazardous chemicals with an adverse effect with long term exposure |

## MAXIMUM AMOUNT

1. For each hazardous chemical, estimate the greatest amount present at your facility on any single day during the reporting period.

2. Find the appropriate range value code in Table I.

3. Enter this range value as the Maximum Amount.

**Table I REPORTING RANGES**

| Range Value | Weight Range in Pounds From... | To... |
|---|---|---|
| 01 | 0 | 99 |
| 02 | 100 | 999 |
| 03 | 1,000 | 9,999 |
| 04 | 10,000 | 99,999 |
| 05 | 100,000 | 999,999 |
| 06 | 1,000,000 | 9,999,999 |
| 07 | 10,000,000 | 49,999,999 |
| 08 | 50,000,000 | 99,999,999 |
| 09 | 100,000,000 | 499,999,999 |
| 10 | 500,000,000 | 999,999,999 |
| 11 | 1 billion | higher than 1 billion |

If you are using this form as a worksheet for completing Tier One, enter the actual weight in pounds in the shaded space below the response blocks. Do this for both Maximum Amount and Average Daily Amount.

United States Environmental Protection Agency | Solid Waste and Emergency Response (5305W) | EPA550-B-98-007 June 1998

# RCRA, Superfund & EPCRA Hotline Training Module

## Introduction to:

## Hazardous Chemical Inventory Reporting
### (EPCRA §§311/312; 40 CFR Part 370)

**Updated February 1998**

DISCLAIMER

This document was developed by Booz·Allen & Hamilton Inc. under contract 68-W0-0039 to EPA. It is intended to be used as a training tool for Hotline specialists and does not represent a statement of EPA policy.

The information in this document is not by any means a complete representation of EPA's regulations or policies. This document is used only in the capacity of the Hotline training and is not used as a reference tool on Hotline calls. The Hotline revises and updates this document as regulatory program areas change.

The information in this document may not necessarily reflect the current position of the Agency. This document is not intended and cannot be relied upon to create any rights, substantive or procedural, enforceable by any party in litigation with the United States.

**RCRA, Superfund & EPCRA Hotline Phone Numbers:**

| | |
|---|---|
| National toll-free (outside of DC area) | (800) 424-9346 |
| Local number (within DC area) | (703) 412-9810 |
| National toll-free for the hearing impaired (TDD) | (800) 553-7672 |

The Hotline is open from 9 am to 6 pm Eastern Time,
Monday through Friday, except for federal holidays.

# HAZARDOUS CHEMICAL INVENTORY REPORTING

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# 1. INTRODUCTION

Working within the framework established by the emergency planning provisions of the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as SARA Title III, the hazardous chemical inventory reporting requirements provide State Emergency Response Commissions (SERCs), Local Emergency Planning Committees (LEPCs), and local fire departments with additional chemical information necessary for community emergency preparedness. The hazardous chemical inventory reporting sections, EPCRA §§311 and 312, require facilities to submit detailed information on the chemicals present on site that require Material Safety Data Sheets (MSDSs). SERCs, LEPCs, and local fire departments can use this information to assist in the development of community emergency plans. The information is also available to the general public, further satisfying communities' right-to-know about chemical use in their neighborhoods.

When you have completed this module, you will be familiar with the purpose, scope, and reporting requirements of §§311 and 312. Specifically, you will be able to:

- Explain the general purpose and scope of EPCRA §§311 and 312
- Identify which facilities and which chemicals are subject to reporting
- Explain what facilities must do to comply with §§311 and 312
- List the five hazard categories used to group hazardous chemicals
- Identify the options facilities have when reporting under §§311 and 312
- Explain the two ways facilities can report mixtures
- Define the de minimis cut-off level and how it applies to mixtures
- Explain how citizens can access the information reported.

Use this list of objectives to check your knowledge of this topic after you complete the training session. The concepts you learn from this module and the subsequent training session will be put to use in a Forms Workshop scheduled later in your training program.

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# 2. REGULATORY SUMMARY

The hazardous chemical inventory reporting provisions outlined in EPCRA §§311 and 312 require facilities to report inventory information on the hazardous chemicals present on site. This inventory contains each hazardous chemical's identity, physical and health hazards, and location. Facilities that meet the criteria found in 40 CFR §370.20 are required to submit reports to the SERC, LEPC, and local fire department. There are two reporting mechanisms in the hazardous chemical inventory program: a one-time notification of the presence of hazardous chemicals on site in excess of threshold levels (EPCRA §311), and an annual notification detailing the locations and hazards associated with the hazardous chemicals found on facility grounds (EPCRA §312). This information is provided to local officials and can help in the development of a community emergency plan. The public has access to all information submitted under EPCRA §§311 and 312 through their SERC and LEPC as discussed in EPCRA §324 (40 CFR §370.30).

## 2.1 REPORTING CRITERIA

In order to be required to report under EPCRA §§311 and 312, facilities must meet the applicability criteria found in 40 CFR §370.20. Not all facilities with hazardous chemicals on site are required to participate in the program. Applicability for §§311 and 312 is two-fold. First, facilities must be regulated by the Occupational Safety and Health Act's (OSHA) Hazard Communication Standard. Second, facilities must exceed established thresholds for hazardous chemicals on site at any one time.

### FACILITIES COVERED

OSHA's Hazard Communication Standard (HCS) requires facilities to procure or prepare material safety data sheets (MSDSs) for the hazardous chemicals found at the facility (29 CFR §1910.1200). In general, the chemicals regulated by OSHA's HCS pose a hazard to workers potentially exposed to the substances (e.g., the substance is reactive or flammable). The MSDS contains important health and safety information. Any facility that is required by OSHA to prepare or have available an MSDS for a hazardous chemical is subject to EPCRA §§311 and 312 if the chemical is present on site at any one time in excess of threshold levels. There is no list of hazardous chemicals subject to reporting. The key to determining whether or not a chemical is considered hazardous is if it meets OSHA's definition of a hazardous chemical in 29 CFR 1910.1200(c).

### THRESHOLD LEVELS

Not all facilities storing or using hazardous chemicals pose a significant threat to human health and the environment. To restrict reporting to those facilities whose chemical inventories pose the most substantial risks, EPA developed threshold

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levels for hazardous chemicals that serve as the second trigger for applicability. If the quantity of a hazardous chemical on site equals or exceeds the applicable threshold level at any one time, the facility must report to the SERC, LEPC, and the local fire department.

The threshold level the facility owner/operator must look to varies depending on how the chemical is classified. For hazardous chemicals that are not EHSs, the threshold is 10,000 pounds. The reporting threshold for hazardous chemicals which are EHSs (listed in 40 CFR Part 355, Appendices A and B) is 500 pounds or that chemical's threshold planning quantity (TPQ), whichever is lower. For example, suppose a facility is required by OSHA to have an MSDS for sodium cyanide, that is an EHS and has a TPQ of 100 pounds. Because the TPQ is lower than the default §§311/312 500-pound threshold for EHSs, the facility owner/operator must report this chemical if there was 100 pounds or more on site at any one time. In contrast, if a facility had dichloroethyl ether, an EHS with a TPQ of 10,000 pounds, the facility would defer to the default §§311/312 500-pound threshold for EHSs. The facility owner/operator must report if the quantity equals or exceeds 500 pounds on site at any one time. Figure 1 illustrates the steps a facility owner/operator needs to take to determine if it is required to report under §§311 and 312.

## 2.2 EXEMPTIONS

The exemptions from §§311 and 312 reporting provide facility owner/operators relief from reporting in a range of situations that are covered under other regulatory programs or are outside the scope of the statute's purpose. There are occasions when a facility meeting §§311/312 applicability may not have to report because either the chemical or the facility is exempt. Chemical exemptions apply only to those specific chemicals that meet the requirements for the exemptions under OSHA or EPCRA, not to the facility itself. Facility exemptions apply to all hazardous chemicals at facilities that are exempt from reporting. There are some similarities between the OSHA and EPCRA exemptions. The exemptions under each statute may appear duplicative, however, due to the different scopes and purposes of the two laws, the interpretation and application of each exemption varies.

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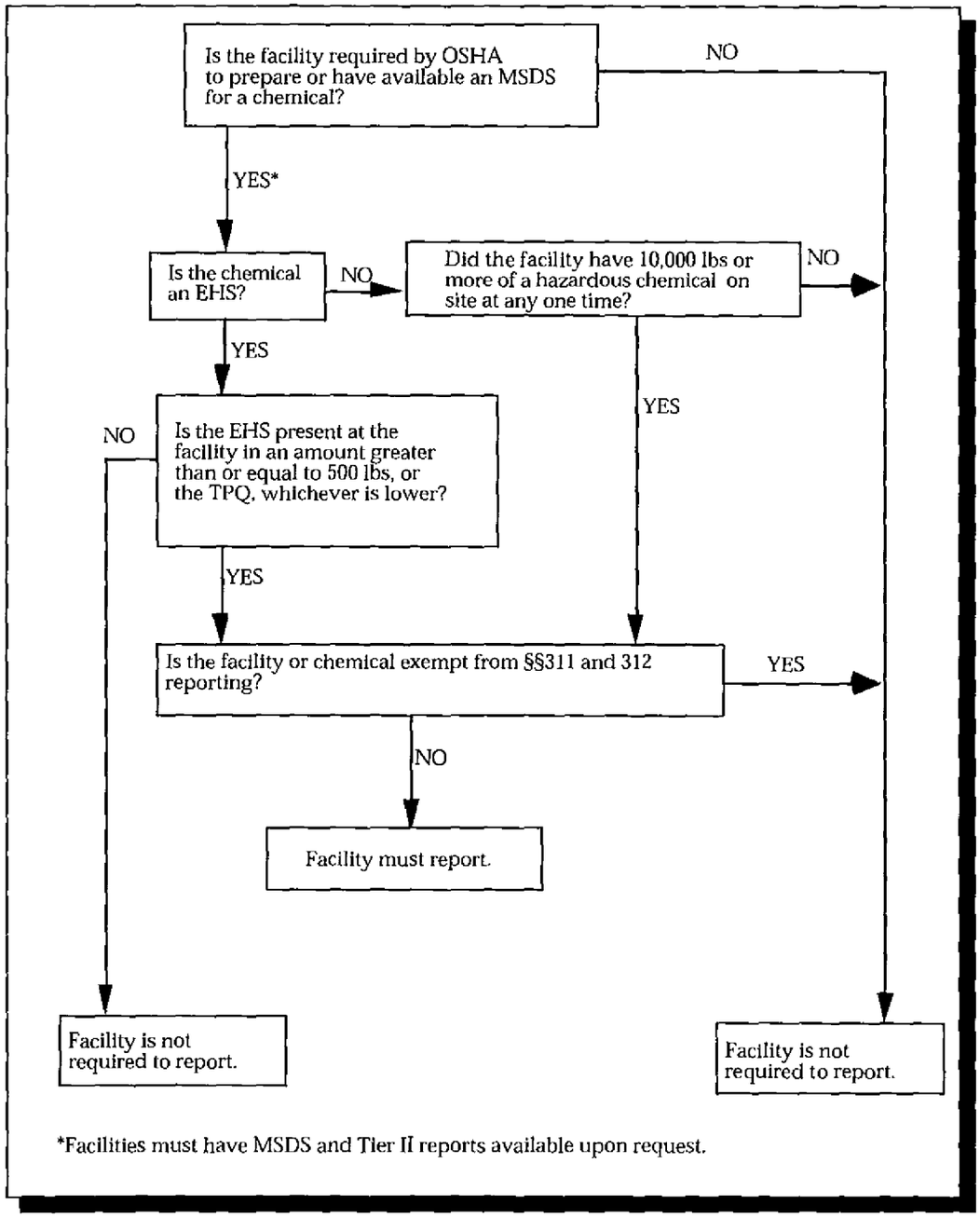
## Figure 1
## DETERMINING APPLICABILITY OF §§311 AND 312

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## CHEMICAL EXEMPTIONS

Although OSHA requires MSDSs for a tremendous number of chemicals, there are a number of exemptions to the OSHA requirement to maintain MSDSs, subsequently exempting them from §§311 and 312 reporting. Substances that do not require an MSDS are (29 CFR §1910.1200(b)(6)):

- Hazardous wastes as defined in the Solid Waste Disposal Act, when subject to regulations issued under that act
- Tobacco or tobacco products
- Wood or wood products (excluding those treated with a hazardous chemical, which may be subsequently sawed or cut, generating dust)
- Manufactured items ("articles") that are formed to a specific shape or design during manufacture, have end use functions dependent in whole or in part upon the shape or design during end use, and do not release or otherwise result in exposure to a hazardous chemical under normal conditions of use
- Food, drugs, cosmetics, or alcoholic beverages in a retail establishment that are packaged for sale to consumers
- Food, drugs, or cosmetics intended for personal consumption by employees while in the workplace
- Any consumer product or hazardous substance, as defined in the Consumer Product Safety Act, where the employer can demonstrate that use and exposures are the same as experienced by consumers
- Any drug, as defined in the Federal Food, Drug, and Cosmetic Act, when it is in solid, final form for direct administration to the patient (i.e., tablets or pills).

Chemicals found in these forms are either regulated by another act or do not present a hazard to the workers handling these substances. If a chemical is exempt from OSHA's HCS, it is not regulated by EPCRA §§311 and 312. On the other hand, a chemical may be subject to OSHA's HCS, but exempt from EPCRA hazardous chemical inventory reporting requirements due to an EPCRA exemption. Hotline Information Specialists should encourage callers to contact their local OSHA office for interpretations of the HCS exemptions. Callers may also consult OSHA'a computerized information system (OCIS) at: www.osha-slc.gov.

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EPCRA §311(e) lists five exemptions from the definition of hazardous chemical for purposes of compliance with §§311 and 312, and are codified at 40 CFR §370.2. These exemptions cover chemicals that are either regulated under other programs, do not present a hazard during normal use, are chemicals that the community is already aware of, or are under the control of trained personnel. The exemptions cover:

- Food and Drug Administration (FDA) regulated substances -- any food, food additive, color additive, drug, or cosmetic regulated by FDA

- Solid manufactured items -- any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use

- Substances packaged as consumer products -- any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public

- Medical and research lab materials -- any substance, to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual

- Substances used in agricultural operations -- any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer.

It is important to remember that these exemptions apply to specific chemicals within the scope of the exemption only, not to all hazardous chemicals at a particular facility. EPCRA §§311 and 312 do provide certain exemptions on a facility-wide basis as discussed below.

**FACILITY EXEMPTIONS**

Since the statutory definition of person does not include the federal government, federally owned and operated facilities are not required by the statute to comply with any section of EPCRA. President Clinton, however, signed Executive Order 12856 on August 3, 1993, that requires federal facilities to comply with EPCRA. Federal facilities with hazardous chemicals above threshold levels were required to meet §311 reporting requirements by August 3, 1994. Federal facilities were required to file Tier II forms, thus complying with EPCRA §312, by March 1, 1995 (and annually thereafter). (Details of this process are provided in the module entitled Interface with Other Federal Regulatory Programs).

State and local governments are not covered by OSHA, and therefore these types of facilities are not subject to §§311 and 312 reporting. While some state and local

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governments may be required under state law to have MSDSs for the hazardous chemicals at their facilities, these facilities would not be subject to §§311 and 312 because they are not subject to federal OSHA requirements. Some state and local governments voluntarily comply with EPCRA requirements.

Any facility not covered by OSHA for any reason would be exempt from reporting under §§311 and 312. For example, the mining industry is exempt in most cases because it is regulated by the Mining Safety and Health Administration (MSHA), rather than OSHA. Since mining extraction operations are covered by MSHA, the chemicals used in these operations are not subject to threshold determinations. If the facility conducts additional activities covered by OSHA, such as refining, then these chemicals would be covered under §§311 and 312 (55 FR 30639; July 26, 1990).

**TRANSPORTATION EXEMPTION**

EPCRA §327 states that SARA Title III does not apply to the transportation, including storage incident to such transportation, of any substance, with the exception of §304 reporting. Therefore, materials being distributed or stored incident to transportation (i.e., under active shipping papers) would not be included in a facility threshold determination under §§311 and 312.

## 2.3 MSDS AND HAZARDOUS CHEMICAL LIST REPORTING

EPCRA §311 requires the submission of a one-time notification identifying the hazardous chemicals present at a facility in amounts equal to or in excess of threshold levels to the SERC, LEPC, and local fire department. To meet the requirements of §311, a facility must submit an MSDS for each hazardous chemical equalling or exceeding a threshold. The facility can submit a copy of each MSDS, or submit a list of the hazardous chemicals grouped by hazard category (discussed in Section 2.5) This list must include the hazardous chemical name or common name and any hazardous component of each hazardous chemical, except when reporting by mixture (discussed in Section 2.6). The MSDS or list of chemicals is a one-time submission and there is no required form.

If, after initial reporting, a facility owner/operator finds that it has a hazardous chemical that is newly covered or there has been significant new information on an already reported chemical, the information reported under §311 must be updated. If the facility owner/operator initially reported by MSDS, it can submit a copy of the new or revised MSDS. If a list of chemicals was submitted instead of MSDSs, the facility owner/operator should file a revised list. The new list should include any newly covered hazardous chemical being reported or any changes to the hazard category of a given chemical. A facility must supply this supplemental information within three months after discovery of significant new information (40 CFR §370.21(c)).

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## 2.4 TIER REPORTING

EPCRA §312 requires submission of an annual report providing information on hazardous chemicals on-site to the SERC, LEPC, and local fire department. This report is due every March 1 and covers the previous calendar year. EPA created two types of inventory forms for facilities to use to fulfill this requirement: the Tier I and Tier II. The Tier I form requires facilities to report general information on the amount and location of hazardous chemicals. Tier II forms require more detailed information on each hazardous chemical. Facilities use the Tier II form to report chemical-specific information -- the name, chemical abstract service number (CAS), physical and health hazards, inventory amounts, and storage conditions and locations (40 CFR §370.25). Facilities may submit a Tier II in lieu of a Tier I.

While federal regulations only require the submission of a Tier I form, EPA encourages, and some states require, the use of the Tier II form. States may also have lower thresholds that trigger Tier reporting. States may impose fees for processing Tier forms or even have their own forms that facilities must use to fulfill §312 requirements. Information Specialists should always refer callers to the appropriate SERC to determine which form the state requires.

EPA distributes an electronic version of the Tier II form in both Windows and DOS formats. Not all states have the capabilities to receive Tier II information electronically. As such, callers should check with their state EPCRA §§311/312 contact for individual state information.

## 2.5 HAZARD CATEGORIES

EPA has identified five hazard categories that are used in both §§311 and 312 reporting. Familiarization with these hazard categories is integral to completion of the Tier I and Tier II form. Three of the categories denote physical hazards: fire hazard, sudden release of pressure, and reactivity. The other two categories are health related: immediate (acute) health hazard and delayed (chronic) health hazard. These should not be confused with the 23 categories established under OSHA's Hazard Communication Standard, which often are noted on an MSDS. Figure 2 compares the Title III categories with some HCS categories. This table is not all inclusive of OSHA's categories so a facility may have to seek more information from another source.

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**Figure 2**
**HAZARDOUS CATEGORY COMPARISON**
**FOR REPORTING UNDER EPCRA §§311 AND 312**

| EPA's Hazard Categories | OSHA's Hazard Categories |
|---|---|
| Fire Hazard | Flammable<br>Combustible Liquid<br>Pyrophoric<br>Oxidizer |
| Sudden Release of Pressure | Explosive<br>Compressed Gas |
| Reactivity | Unstable Reactive<br>Organic Peroxide<br>Water Reactive |
| Immediate (Acute) Health Hazard | Highly Toxic<br>Toxic<br>Irritant<br>Sensitizer<br>Corrosive<br><br>Other hazardous chemicals with an adverse effect with short-term exposure |
| Delayed (Chronic) Health Hazard | Carcinogens<br><br>Other hazardous chemicals with an adverse effect with long-term exposure |

## 2.6 GENERIC REPORTING

Some companies with many similar facilities have employed the use of what is known as "generic reporting." To do this, the parent company constructs a generic or master list of chemicals subject to reporting. A given facility will then edit the list by deleting chemicals that it does not have above the threshold amounts or by adding reportable chemicals that are unique to that facility. The facility would be in compliance with §311 if the list is sent to the appropriate agencies after it is edited. If many facilities within an organization are identical (e.g., convenience stores or gas stations), the parent company may construct a Tier II form that reflects the presence of the hazardous chemicals at all of the facilities. This generic Tier II is then sent to the appropriate agencies along with a list of the facilities to which it applies. In this way, a SERC might receive a Tier II form and a list of 20 facilities it covers, rather

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than 20 identical copies of a Tier II form. In either case, as long as the appropriate agencies receive the required information, the facility or facilities would be in compliance with §312.

## 2.7 MIXTURES

A mixture is a combination of two or more different substances, each retaining its own chemical identity. Facilities may have mixtures containing EHSs or hazardous chemicals. The owner or operator of a facility can choose to report all the components of a mixture separately or report the mixture as a whole (e.g., if the composition of a mixture is unknown) (40 CFR §370.28(a)). For example, if a facility has a mixture that is 50 percent nickel and the maximum quantity on site is 10,500 pounds, it could report for the mixture since it exceeds the threshold, or it could choose to report for the components. Since the nickel in the mixture is only 5,250 pounds, the facility would not have to report for nickel. If a facility chooses to apply the reporting threshold to each hazardous component in a mixture, the facility is required to aggregate all quantities of the hazardous chemical at the facility to determine if it exceeds thresholds.

However, if EHSs are components of a mixture, the quantity of the EHS in each mixture, and all other quantities of the EHS, must be aggregated to determine if a threshold has been reached (55 FR 30640; July 26, 1990). Suppose a facility has two different mixtures that both contain 50 percent bromine. If the weight of the first mixture is 100 pounds and the second is 500 pounds, the facility would need to add the 50 pounds of bromine from the first to the 250 pounds of bromine in the second to determine if it exceeds the threshold for bromine.

Whichever option the facility uses, the reporting of mixtures must be consistent for both §§311 and 312 reporting, where practicable. If a facility reports on mixtures as a whole in §311, it must do the same in §312 (where practicable).

### DE MINIMIS

In order to reduce the regulatory burden on facilities, EPA promulgated a de minimis exemption for hazardous chemical inventory reporting. The exemption found at 40 CFR §370.28(b) excludes facilities that have very small, or de minimis quantities of hazardous chemicals or extremely hazardous substances in mixtures.

Mixtures that contain hazardous chemicals or EHSs below the de minimis level need not be counted toward the threshold. There are two different de minimis levels established: 1 percent for noncarcinogens and 0.1 percent for carcinogens. If a hazardous chemical exists in concentrations of one percent or less by weight, it does not need to be counted in determining threshold applicability. Similarly, if the chemical is a carcinogen, concentrations of 0.1 percent by weight or less are considered de minimis, and therefore do not need to be counted towards thresholds.

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# 3. HISTORICAL DEVELOPMENT OF THE EPCRA §§311/312 PROGRAM

A historical perspective may help to understand the EPCRA §§311/312 program more thoroughly. The history of hazardous chemical inventory reporting revolves around two main developments: changes to OSHA regulations and proposed changes to EPCRA regulations.

## 3.1 OSHA EXPANSION

Changes in OSHA regulations have affected the universe of facilities covered by §§311 and 312. When the EPCRA regulations were initially promulgated on October 15, 1987, only manufacturers (i.e., facilities in Standard Industrial Classification (SIC) codes 20-39) were required to have MSDSs under OSHA's HCS, thus only manufacturers could be subject to §§311 and 312. In June 1988, OSHA expanded the facilities subject to the HCS to include nonmanufacturers, with the exception of the construction industry. OSHA began regulating the construction industry under HCS on January 30, 1989.

## 3.2 EPCRA THRESHOLD LEVELS

Beginning in 1987, EPA proposed a three-year phase-in program to gradually lower threshold levels and thereby expand the reach of the EPCRA §§311 and 312 reporting requirements. For reporting years 1987 and 1988, thresholds of 10,000 pounds, and 500 pounds or the TPQ for EHSs, were established. For the third reporting year, 1989, EPA proposed a threshold of 0 pounds. In the October 12, 1989, Federal Register (57 FR 41904), however, the Agency published an interim final rule keeping the thresholds at 10,000 pounds, and 500 pounds or the TPQ, whichever is lower, for EHSs, for the 1989 reporting year. The Agency finalized the originally established thresholds in the July 26, 1990, Federal Register (55 FR 30632) based on the decision that the massive number of forms and reporting data that a lower threshold would create was not feasible for state and local governments to handle. Despite proposals to the contrary, the reporting thresholds have essentially remained unchanged since reporting began in 1987.

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# 5. MODULE SUMMARY

EPCRA §§311 and 312 apply to any facility that has certain amounts of OSHA hazardous chemicals or EHSs on site at any one time. A facility is required to report the presence of these chemicals. To determine if a facility is subject to §§311 and 312, three basic steps should be followed. First, determine if the facility is covered by OSHA (remember, state and local governments are not covered by OSHA regulations and therefore are not subject to §§311 and 312). Second, determine which chemicals are covered by the OSHA MSDS requirements and consider the five Title III exemptions. Finally, report any chemicals which equal or exceed 10,000 pounds at any one time, unless they are EHSs. EHSs are reportable when they exceed a lower threshold of 500 pounds or the listed TPQ, whichever is lower. This inventory of information is submitted to state and local agencies which then use it for community emergency planning and awareness.

The information in this document is not by any means a complete representation of EPA's regulations or policies, but is an introduction used for Hotline training purposes.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: NYD131318651
2. Page 1 of 1
3. Emergency Response Phone: 908-354-0210
4. Manifest Tracking Number: 001032563 JJK

5. Generator's Name and Mailing Address: Sulzer Metco US INC
1101 Prospect Ave
West Bury, NY 11590
Generator's Phone: 516-338-2417

Generator's Site Address (if different than mailing address): Same

6. Transporter 1 Company Name: Clean Venture — U.S. EPA ID Number: NJ0000027193

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Cycle Chem
217 South First Street
Elizabeth, NJ 07206
Facility's Phone: 908-355-5800 — U.S. EPA ID Number: NJD002200046

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes | | |
|---|---|---|---|---|---|---|---|---|
| X | 1. WASTE Corrosive liquids NOS 8 UN1760 PG II ERG 154 | 1 | DM | 501 | P | D002 D008 | D006 T | D007 |
| | 2. | | | | | | | |
| | 3. | | | | | | | |
| | 4. | | | | | | | |

SULZER METCO (US) INC.
SEP 17 2008
EHS DEPARTMENT

14. Special Handling Instructions and Additional Information
1) STCR3-11 Copper Cleaner-PH 12.5
945948

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Jim Kourkoumelis — Signature: [signature] — Month 09 Day 04 Year 08

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Kevin Howard — Signature: Kevin Howard — Month 09 Day 04 Year 08
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H141 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Mylene Gonzalez — Signature: Mylene Gonzalez — Month 09 Day 04 Year 08

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

LDR ON FILE

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: NYD131318651
2. Page 1 of: 1
3. Emergency Response Phone: 908-354-0210
4. Manifest Tracking Number: 001032563 JJK

**GENERATOR**

5. Generator's Name and Mailing Address: Sulzer Metco US INC
1101 Prospect Ave
West Bury, NY 11590
Generator's Phone: 516-338-2417

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: Clean Venture
U.S. EPA ID Number: NJ0000027193

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: 217 South First Street Cycle Chem
Elizabeth, NJ 07206
Facility's Phone: 908-355-5800
U.S. EPA ID Number: NJD002200046

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes | | |
|---|---|---|---|---|---|---|---|---|
| X | 1. WASTE Corrosive liquids NOS 8 UN1760 PG II ERG 154 | 1 | DM | 501 | P | D002 D008 | D006 T | D007 |
| | 2. | | | | | | | |
| | 3. | | | | | | | |
| | 4. | | | | | | | |

14. Special Handling Instructions and Additional Information
1) STCR3-11 Copper Cleaner-PH 12.5

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Jim Koukoulis
Signature:
Month: 09 Day: 04 Year: 08

**INT'L**

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Kevin Howard
Signature:
Month: 09 Day: 04 Year: 08

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

**DESIGNATED FACILITY**

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| | | | |

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month: Day: Year:

## U.S. EPA Form 8700-22

Read all instructions before completing this form.

1. This form has been designed for use on a 12-pitch (elite) typewriter which is also compatible with standard computer printers; a firm point pen may also be used—press down hard.
2. Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, and disposal facilities to complete this form (EPA Form 8700–22) and, if necessary, the continuation sheet (EPA Form 8700–22A) for both inter- and intrastate transportation of hazardous waste.

Public reporting burden for this collection of information is estimated to average: 30 minutes for generators, 10 minutes for transporters, and 25 minutes for owners or operators of treatment, storage, and disposal facilities. This includes time for reviewing instructions, gathering data, completing, reviewing and transmitting the form. Any correspondence regarding the PRA burden statement for the manifest must be sent to the Director of the Collection Strategies Division in EPA's Office of Information Collection at the following address: U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW., Washington, DC 20460. Do not send the completed form to this address.

### I. Instructions for Generators

*Item 1. Generator's U.S. EPA Identification Number*

Enter the generator's U.S. EPA twelve digit identification number, or the State generator identification number if the generator site does not have an EPA identification number.

*Item 2. Page 1 of ___*

Enter the total number of pages used to complete this Manifest (*i.e.*, the first page (EPA Form 8700-22) plus the number of Continuation Sheets (EPA Form 8700-22A), if any).

*Item 3. Emergency Response Phone Number*

Enter a phone number for which emergency response information can be obtained in the event of an incident during transportation. The emergency response phone number must:

1. Be the number of the generator or the number of an agency or organization who is capable of and accepts responsibility for providing detailed information about the shipment;
2. Reach a phone that is monitored 24 hours a day at all times the waste is in transportation (including transportation related storage); and
3. Reach someone who is either knowledgeable of the hazardous waste being shipped and has comprehensive emergency response and spill cleanup/incident mitigation information for the material being shipped or has immediate access to a person who has that knowledge and information about the shipment.

**Note:** Emergency Response phone number information should only be entered in Item 3 when there is one phone number that applies to all the waste materials described in Item 9b. If a situation (*e.g.*, consolidated shipments) arises where more than one Emergency Response phone number applies to the various wastes listed on the manifest, the phone numbers associated with each specific material should be entered after its description in Item 9b.

*Item 4. Manifest Tracking Number*

This unique tracking number must be pre-printed on the manifest by the forms printer.

*Item 5. Generator's Mailing Address, Phone Number and Site Address*

Enter the name of the generator, the mailing address to which the completed manifest signed by the designated facility should be mailed, and the generator's telephone number. Note, the telephone number (including area code) should be the normal business number for the generator, or the number where the generator or his authorized agent may be reached to provide instructions in the event the designated and/or alternate (if any) facility rejects some or all of the shipment. Also enter the physical site address from which the shipment originates only if this address is different than the mailing address.

*Item 6. Transporter 1 Company Name, and U.S. EPA ID Number*

Enter the company name and U.S. EPA ID number of the first transporter who will transport the waste. Vehicle or driver information may not be entered here.

*Item 7. Transporter 2 Company Name and U.S. EPA ID Number*

If applicable, enter the company name and U.S. EPA ID number of the second transporter who will transport the waste. Vehicle or driver information may not be entered here.

If more than two transporters are needed, use a Continuation Sheet(s) (EPA Form 8700-22A).

*Item 8. Designated Facility Name, Site Address, and U.S. EPA ID Number*

Enter the company name and site address of the facility designated to receive the waste listed on this manifest. Also enter the facility's phone number and the U.S. EPA twelve digit identification number of the facility.

*Item 9. U.S. DOT Description (Including Proper Shipping Name, Hazard Class or Division, Identification Number, and Packing Group)*

*Item 9a.* If the wastes identified in Item 9b consist of both hazardous and nonhazardous materials, then identify the hazardous materials by entering an "X" in this Item next to the corresponding hazardous material identified in Item 9b.

*Item 9b.* Enter the U.S. DOT Proper Shipping Name, Hazard Class or Division, Identification Number (UN/NA) and Packing Group for each waste as identified in 49 CFR 172. Include technical name(s) and reportable quantity references, if applicable.

**Note:** If additional space is needed for waste descriptions, enter these additional descriptions in Item 27 on the Continuation Sheet (EPA Form 8700-22A). Also, if more than one Emergency Response phone number applies to the various wastes described in either Item 9b or Item 27, enter applicable Emergency Response phone numbers immediately following the shipping descriptions for those Items.

*Item 10. Containers (Number and Type)*

Enter the number of containers for each waste and the appropriate abbreviation from Table I (below) for the type of container.

TABLE I.--TYPES OF CONTAINERS

| | |
|---|---|
| BA = Burlap, cloth, paper, or plastic bags. | DT = Dump truck. |
| CF = Fiber or plastic boxes, cartons, cases. | DW = Wooden drums, barrels, kegs. |
| CM = Metal boxes, cartons, cases (including roll-offs). | HG = Hopper or gondola cars. |
| CW = Wooden boxes, cartons, cases. | TC = Tank cars. |
| CY = Cylinders. | TP = Portable tanks. |
| DF = Fiberboard or plastic drums, barrels, kegs. | TT = Cargo tanks (tank trucks). |
| DM = Metal drums, barrels, kegs. | |

*Item 11. Total Quantity*

Enter, in designated boxes, the total quantity of waste. Round partial units to the nearest whole unit, and *do not* enter decimals or fractions. To the extent practical, report quantities using appropriate units of measure that will allow you to report quantities with precision. Waste quantities entered should be based on actual measurements or reasonably accurate estimates of actual quantities shipped. Container capacities are not acceptable as estimates.

*Item 12. Units of Measure (Weight/Volume)*

Enter, in designated boxes, the appropriate abbreviation from Table II (below) for the unit of measure.

TABLE II.--UNITS OF MEASURE

| | |
|---|---|
| G = Gallons (liquids only). | N = Cubic Meters. |
| K = Kilograms. | P = Pounds. |
| L = Liters (liquids only). | T = Tons (2000 Pounds). |
| M = Metric Tons (1000 kilograms). | Y = Cubic Yards. |

**Note:** Tons, Metric Tons, Cubic Meters, and Cubic Yards should only be reported in connection with very large bulk shipments, such as rail cars, tank trucks, or barges.

*Item 13. Waste Codes*

Enter up to six federal and state waste codes to describe each waste stream identified in Item 9b. State waste codes that are not redundant with federal codes must be entered here, in addition to the federal waste codes which are most representative of the properties of the waste.

*Item 14. Special Handling Instructions and Additional Information*

1. Generators may enter any special handling or shipment-specific information necessary for the proper management or tracking of the materials under the generator's or other handler's business processes, such as waste profile numbers, container codes, bar codes, or response guide numbers. Generators also may use this space to enter additional descriptive information about their shipped materials, such as chemical names, constituent percentages, physical state, or specific gravity of wastes identified with volume units in Item 12.
2. This space may be used to record limited types of federally required information for which there is no specific space provided on the manifest, including any alternate facility designations; the manifest tracking number of the original manifest for rejected wastes and residues that are re-shipped under a second manifest; and the specification of PCB waste descriptions and PCB out-of-service dates required under 40 CFR 761.207. Generators, however, cannot be required to enter information in this space to meet state regulatory requirements.

*Item 15. Generator's/Offeror's Certifications*

1. The generator must read, sign, and date the waste minimization certification statement. In signing the waste minimization certification statement, those generators who have not been exempted by statute or regulation from the duty to make a waste minimization certification under section 3002(b) of RCRA are also certifying that they have complied with the waste minimization requirements. The Generator's Certification also contains the required attestation that the shipment has been properly prepared and is in proper condition for transportation (the shipper's certification). The content of the shipper's certification statement is as follows: "I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent." When a party other than the generator prepares the shipment for transportation, this party may also sign the shipper's certification statement as the offeror of the shipment.
2. Generator or Offeror personnel may preprint the words, "On behalf of" in the signature block or may hand write this statement in the signature block prior to signing the generator/offeror certification, to indicate that the individual signs as the employee or agent of the named principal.

**Note:** All of the above information except the handwritten signature required in Item 15 may be pre-printed.

**PERKIN ELMER**

The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

March 3, 1992

New York Emergency Response Commission
New York State Department of Environmental
Conservation
Bureau of Spill Prevention & Response
50 Wolf Road
Room 326
Albany, NY 12233-3510

Ref: SARA TITLE III - Tier II Reports

Dear Sir/Madam:

Enclosed please find the SARA TITLE III - Tier II Reports for our three facilities.

If we could be of further assistance, please contact me.

Sincerely,

Joseph Macri

Joseph Macri
Manager Facilities

JM:ecb
Enclosures
cc: A.B. Mazzone
C.L. Conroy

SARATII.pwp

P 617 298 165

**Certified Mail Receipt**
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

| | |
|---|---|
| Sent to NYS EMERGENCY RESPONSE<br>NYSDEC BUREAU SPILL PREVENTION | |
| Street & No.<br>50 WOLF ROAD | |
| P.O., State & ZIP Code<br>ALBANY NY 12233-3510 | |
| Postage | $.52 |
| Certified Fee | 1.00 |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, & Address of Delivery | 1.00 |
| TOTAL Postage & Fees | $2.52 |
| Postmark or Date<br>3-6-92 | |

PS Form **3800**, June 1990

**STICK POSTAGE STAMPS TO ARTICLE TO COVER FIRST CLASS POSTAGE, CERTIFIED MAIL FEE, AND CHARGES FOR ANY SELECTED OPTIONAL SERVICES (see front).**

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached and present the article at a post office service window or hand it to your rural carrier (no extra charge).

2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach and retain the receipt, and mail the article.

3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to the back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.

4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.

5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.

6. Save this receipt and present it if you make inquiry.

☆ U.S.G.P.O. 1990-270-153

PS Form 3800, June 1990 *(Reverse)*

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:

NYS EMERGENCY RESPONSE COMMISSION
NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
BUREAU OF SPILL PREVENTION & RESPONSE
50 WOLF ROAD
ALBANY NY 12233-3510

4. Article Number

P 617 298 165

Type of Service:

☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee

X

6. Signature — Agent

X

7. Date of Delivery

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form **3811**, Apr. 1989 ★U.S.G.P.O. 1989-238-815 **DOMESTIC RETURN RECEIPT**

UNITED STATES POSTAL SERVICE

OFFICIAL BUSINESS

**SENDER INSTRUCTIONS**

Print your name, address and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

12 PM #10 03-08-

U.S.MAIL

PENALTY FOR PRIVATE USE, $300

RETURN TO

Print Sender's name, address, and ZIP Code in the space below.

METCO PERKIN-ELMER ATTN: Facilities

1101 PROSPECT AVENUE

WESTBURY NY 11590-0201

Form Approved OMB No. 2050-0072

# Tier Two

**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**

*Specific Information by Chemical*

**Facility Identification**

Name: PERKIN-ELMER CORPORATION METCO DIVISION
Street: 220 MILLER PLACE
City: HICKSVILLE County: NASSAU State: NY Zip: 11801
SIC Code: 3399 Dun & Bradstreet Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID #: ____ Date Received: ____

**Owner/Operator Name**

Name: JOSEPH MACRI Phone: (516) 334-1300
Mail Address: 1101 PROSPECT AVENUE, WESTBURY, NY 11590

**Emergency Contact**

Name: JOSEPH MACRI Title: MANAGER FACILITIES
Phone: (516) 334-1300 EXT. 2374 24 Hr Phone: (800) 424-9300 CHEMTREC

Name: ____ Title: ____
Phone: ( ) ____ 24 Hr Phone: ( ) ____

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 19 91

☐ Check if information below is identical to the information submitted last year

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Storage Codes and Locations (Non-Confidential) — Container Type / Pressure / Temperature — Storage Locations | Optional |
|---|---|---|---|---|
| CAS 7440-02-0 ☐ Trade Secret<br>Chem Name: Nickel Powder<br>Check all that apply: [X] Pure [X] Mix [X] Solid ☐ Liquid ☐ Gas ☐ EHS<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 1 4 Warehouse<br>N 1 4 Production Lines<br>R 1 4 Production Lines - Hardened Steel Hoppers | ☐ |
| CAS 7440-47-3 ☐ Trade Secret<br>Chem Name: Chromium Powder<br>Check all that apply: [X] Pure [X] Mix [X] Solid ☐ Liquid ☐ Gas ☐ EHS<br>EHS Name: | [X] Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 03 Max. Daily Amount (code)<br>03 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 1 4 Warehouse<br>N 1 4 Production Lines<br>R 1 4 Production Lines - Hardened Steel Hoppers | ☐ |
| CAS 7440-48-4 ☐ Trade Secret<br>Chem Name: Cobalt Powder<br>Check all that apply: [X] Pure [X] Mix [X] Solid ☐ Liquid ☐ Gas ☐ EHS<br>EHS Name: | [X] Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 1 4 Warehouse<br>N 1 4 Production Lines<br>R 1 4 Production Lines - Hardened Steel Hoppers | ☐ |

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JOSEPH MACRI MANAGER FACILITIES
Name and official title of owner/operator OR owner/operator's authorized representative

Signature: Joseph Macri Date Signed: 2/28/92

**Optional Attachments**

☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

# Tier Two
EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

*Specific Information by Chemical*

**Facility Identification**

Name: PERKIN-ELMER CORPORATION METCO DIVISION
Street: 220 MILLER PLACE
City: HICKSVILLE County: NASSAU State: NY Zip: 11801
SIC Code: 3399 Dun & Bradstreet Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID #: ____ Date Received: ____

**Owner/Operator Name**

Name: JOSEPH MACRI Phone: (516) 334-1300
Mail Address: 1101 PROSPECT AVENUE, WESTBURY, NY 11590

**Emergency Contact**

Name: JOSEPH MACRI EXT 2374 Title: MANAGER FACILITIES
Phone: (516) 334-1300 24 Hr Phone: (800) 424-9300 CHEMTREC

Name: ____ Title: ____
Phone: ( ) ____ 24 Hr Phone: ( ) ____

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 19 91

☐ Check if information below is identical to the information submitted last year

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Storage Codes and Locations (Non-Confidential) — Storage Locations | Optional |
|---|---|---|---|---|
| CAS 7429-90-5 ☐ Trade Secret<br>Chem Name: Aluminum Powder<br>Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS<br>EHS Name: | ☒ Fire<br>☐ Sudden Release of Pressure<br>☒ Reactivity<br>☒ Immediate (acute)<br>☒ Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | Container Type / Pressure / Temperature<br>D 1 4 Warehouse<br>N 1 4 Production Lines<br>R 1 4 Production Lines - Hardened Steel Hoppers | ☐ |
| CAS 1344-25-1 ☐ Trade Secret<br>Chem Name: Aluminum Oxide Powder<br>Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>☒ Immediate (acute)<br>☒ Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | Container Type / Pressure / Temperature<br>D 1 4 Warehouse<br>N 1 4 Production Lines<br>R 1 4 Production Lines - Hardened Steel Hoppers | ☐ |
| CAS 1314-23-4 ☐ Trade Secret<br>Chem Name: Zirconium Oxide Powder<br>Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>☒ Immediate (acute)<br>☐ Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | Container Type / Pressure / Temperature<br>D 1 4 Warehouse<br>N 1 4 Production Lines<br>R 1 4 Production Lines - Hardened Steel Hoppers | ☐ |

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JOSEPH MACRI MANAGER FACILITIES
Name and official title (type or print) — Signature: Joseph Macri — Date Signed: 2/28/92

**Optional Attachments**

☐ I have attached a site plan
☐ I have attached a list of site contingency abbreviations
☐ I have attached a description of dikes and other safeguard measures

Form Approved OMB No. 2050-0072

# Tier Two

**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**

*Specific Information by Chemical*

**Facility Identification**

Name: PERKIN-ELMER CORPORATION METCO DIVISION
Street: 1101 PROSPECT AVENUE
City: WESTBURY County: NASSAU State: NY Zip: 11590
SIC Code: 3542 Dun & Bradstreet Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID #: ____ Date Received: ____

**Owner/Operator Name**

Name: JOSEPH MACRI Phone: (516)334-1300
Mail Address: 1101 PROSPECT AVENUE, WESTBURY, NY 11590

**Emergency Contact**

Name: JOSEPH MACRI Title: MANAGER FACILITIES
Phone: (516) 334-1300 EXT. 2374 24 Hr Phone: (800)424-9300 CHEMTREC

Name: ____ Title: ____
Phone: ( ) ____ 24 Hr Phone: ( ) ____

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 19 91

☐ Check if information below is identical to the information submitted last year

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Storage Codes and Locations (Non-Confidential) — Container Type / Pressure / Temperature / Storage Locations | Optional |
|---|---|---|---|---|
| CAS 7440-50-8 ☐ Trade Secret<br>Chem. Name: Copper Powder<br>Check all that apply: [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name: | [ ] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 03 Max. Daily Amount (code)<br>03 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | N 1 4 Stock Warehouse | [ ] |
| CAS 7440-02-0 ☐ Trade Secret<br>Chem. Name: Nickel<br>Check all that apply: [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name: | [ ] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | N 1 4 Stock Warehouse | [ ] |
| CAS 7440-48-4 ☐ Trade Secret<br>Chem. Name: Cobalt Powder<br>Check all that apply: [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name: | [X] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 03 Max. Daily Amount (code)<br>03 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | N 1 4 Stock Warehouse | [ ] |

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JOSEPH MACRI — MANAGER FACILITIES — Joseph Macri — 2/28/92

Name and official title of owner/operator OR owner/operator's authorized representative — Signature — Date Signed

**Optional Attachments**

[ ] I have attached a site plan
[ ] I have attached a list of site coordinate abbreviations
[ ] I have attached a description of dikes and other safeguard measures

Form Approved OMB No. 2050-0072

# Tier Two
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**
*Specific Information by Chemical*

**Facility Identification**
Name: PERKIN-ELMER CORPORATION METCO DIVISION
Street: 1101 PROSPECT AVENUE
City: WESTBURY County: NASSAU State: NY Zip: 11590
SIC Code: 3542 Dun & Brad Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID #: ____ Date Received: ____

**Owner/Operator Name**
Name: JOSEPH MACRI Phone: (516) 334-1300
Mail Address: 1101 PROSPECT AVENUE, WESTBURY, NY 11590

**Emergency Contact**
Name: JOSEPH MACRI Title: MANAGER FACILITIES
Phone: (516) 334-1300 EXT. 2374 24 Hr. Phone: (800) 424-9300 CHEMTREC
Name: ____ Title: ____
Phone: ( ) 24 Hr. Phone: ( )

*Important: Read all instructions before completing form*
Reporting Period: From January 1 to December 31, 19 91
☐ Check if information below is identical to the information submitted last year

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Container Type | Pressure | Temperature | Storage Codes and Locations (Non-Confidential) Storage Locations | Optional |
|---|---|---|---|---|---|---|---|
| CAS 7440 47 3 Trade Secret ☐<br>Chem Name: Chromium Powder<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐, EHS ☐<br>EHS Name: | X Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 03 Max. Daily Amount (code)<br>03 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | N | 1 | 4 | Stock Warehouse | ☐ |
| CAS 7429 90 5 Trade Secret ☐<br>Chem Name: Aluminum Powder<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐, EHS ☐<br>EHS Name: | X Fire<br>☐ Sudden Release of Pressure<br>X Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | N | 1 | 4 | Stock Warehouse | ☐ |
| CAS 1344 28 1 Trade Secret ☐<br>Chem Name: Aluminum Oxide Powder<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐, EHS ☐<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | N | 1 | 4 | Stock Warehouse | ☐ |

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Name and title of owner/operator OR owner/operator's authorized representative

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Form Approved OMB No. 2050-0072

# Tier Two
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**
*Specific Information by Chemical*

**Facility Identification**
Name: PERKIN-ELMER CORPORATION METCO DIVISION
Street: 1101 PROSPECT AVENUE
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SIC Code: 3542 Dun & Brad Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID #: — Date Received:

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Name: Title:
Phone: ( ) 24 Hr. Phone: ( )

*Important: Read all instructions before completing form*
Reporting Period: From January 1 to December 31, 19 91
☐ Check if information below is identical to the information submitted last year

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Container Type | Pressure | Temperature | Storage Codes and Locations (Non-Confidential) Storage Locations | Optional |
|---|---|---|---|---|---|---|---|
| CAS 108 95 2 Trade Secret ☐<br>Chem Name: Phenol<br>Check all that apply: Pure X, Mix X, Solid ☐, Liquid X, Gas ☐, EHS X<br>EHS Name: Phenol | X Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 02 Max. Daily Amount (code)<br>02 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | F | 1 | 4 | Stock Warehouse | ☐ |
| CAS ☐ Trade Secret ☐<br>Chem Name:<br>Check all that apply: Pure ☐, Mix ☐, Solid ☐, Liquid ☐, Gas ☐, EHS ☐<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>☐ Immediate (acute)<br>☐ Delayed (chronic) | ☐ Max. Daily Amount (code)<br>☐ Avg. Daily Amount (code)<br>☐ No. of Days On-site (days) | | | | | ☐ |
| CAS ☐ Trade Secret ☐<br>Chem Name:<br>Check all that apply: Pure ☐, Mix ☐, Solid ☐, Liquid ☐, Gas ☐, EHS ☐<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>☐ Immediate (acute)<br>☐ Delayed (chronic) | ☐ Max. Daily Amount (code)<br>☐ Avg. Daily Amount (code)<br>☐ No. of Days On-site (days) | | | | | ☐ |

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Name and official title of owner, operator OR owner, operator's authorized representative — Signature — Date signed

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47-15-14 (3/95)

Region: 1

# INSPECTION FORM

CESQG
SQG X
GENERATOR X
TSDF —
OTHER —
UNANNOUNCED —
ANNOUNCED X

NEW YORK STATE INDUSTRIAL HAZARDOUS WASTE MANAGEMENT ACT
(Chapter 639, Laws of 1978)

Prepared for: Commissioner
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Send to: NYSDEC
Division of Hazardous Substances Regulation
Compliance Inspection Section
50 Wolf Road - Room 436
Albany, New York 12233-7253

EPA I.D. NUMBER: NYD981558570

COMPANY NAME (Corporate): Sulzer-Metco Inc

(Division): _____

COMPANY MAILING ADDRESS: 1101 Prospect Ave.

_____

City & State Westbury, NY Zip Code 11590-0201

COMPANY LOCATION ADDRESS: 220 Miller Place

(if different than mailing) _____

City & State Jacksville, NY Zip Code 11901-1826

COMPANY TELEPHONE NUMBER: (516) 338-2114 Extension _____

FULL NAME OF COMPANY CONTACT: Constance Carey

TITLE OF COMPANY CONTACT: Director Environmental Health & Safety

INSPECTION DATE: 9/27/1996 TIME OF INSPECTION: 10:00 (a.m.) ___ (p.m.) Revised 4/17/97

INSPECTOR'S NAME: Kathryn Murphy, EPSI

NAME: _____

REPORT PREPARED BY: K Murphy DATE: 10/1/96

REPORT APPROVED BY: [signature] DATE: 10/7/96

P2SUL002023

# Part I

## General Information and Classification of Facility

1. Identification of Hazardous Waste - 371 — Yes: — No:

A. Facility generates and/or stores hazardous waste on-site. — Yes: X — No: ___

(1) X Company filed a RCRA hazardous waste notification and/or Part A of RCRA permit application.

(2) ___ Company has used knowledge of the hazardous characteristic of the waste to determine if it is hazardous.

(3) X Testing has shown characteristics of:

(X) Ignitability (D001) - 371.3(b)
( ) Corrosivity (D002) - 371.3(c)
(X) Reactivity (D003) - 371.3(d)
(X) Toxicity (D004 - 043) - 371.3(e) D007

(4) ___ The material is listed in the regulations as a hazardous waste from non-specific sources (F-Waste). 371.4(b).

(5) ___ The waste is listed in the regulations as a hazardous waste from specific sources (K-Waste). 371.4(c).

(6) ___ The material is listed in the regulations as an acute hazardous waste (P-Waste). 371.4(d)(5).

(7) ___ The material or product is listed in the regulations as a discarded commercial chemical product, off-specification species or manufacturing chemical intermediate (U-Waste). 371.4(d)(6).

(8) ___ The material is listed in the regulations as a waste containing PCBs (B-Waste). 371.4(e).

B. The company notified EPA as a:

generator

Has EPA or DEC officially modified the company's status? Yes ___ No X
If yes, attach correspondence.

or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials - 372.1(e)(7)(i).

B. TSD Exemptions

(1) ___ Storage of hazardous waste that is generated on-site in containers or tanks for a period not exceeding 90 days. Other than the storage of liquid hazardous waste over the designated sole source aquifers - 373-1.1(d)(1)(iii).

(2) X Storage in containers or tanks of liquid hazardous waste generated on-site over the designated sole source aquifers for a period not exceeding 90 days. These storage areas must comply with the requirements of this exemption whenever any quantity of liquid hazardous waste is stored in tanks, or whenever the total quantity of liquid hazardous waste stored on-site in containers exceeds 185 gallons - 373-1.1(d)(1)(iv).

(3) ___ The on-site storage and treatment of hazardous waste by generators that generate less than 100 kilograms of hazardous waste in any calendar month and store less than 1,000 kilograms. The conditionally exempt small quantity generator requirements listed in subdivision 371.1(f) of this Title remain applicable. If at any time the amount of hazardous waste exceeds 1,000 kilograms, this exemption does not apply. This exemption applies to the on-site storage and treatment of acute hazardous wastes only if the generator generates and stores in any calendar month such acute hazardous waste in quantities less than those listed in 373-1.1(d)(1)(i)(b) of this paragraph - 373-1.1(d)(1)(v).

(4) ___ The storage and recycling of the recyclable materials identified in subparagraphs 371.1(g)(1)(iii) and (iv) of this Title - 373-1.1(d)(1)(vi).

(5) ___ The storage of the following recyclable materials is exempt from permitting provided that Subpart 374-1 is complied with. (NOTE: Subpart 374-1 will require that the facility also complies with selected sections of this Part.) - 373-1.1(d)(1)(vii):

(a) ___ recyclable materials used in a manner constituting disposal (see section 374-1.3);

(b) ___ hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under section 373-2.15 or 373-3.15 of this Title (see section 374-1.8);

(c) X recyclable materials from which precious metals are reclaimed (see section 374-1.6);

(d) ___ spent lead-acid batteries that are being reclaimed (see section 374-1.7).

(6) ___ The recycling of hazardous wastes is exempt from permitting provided 373-2.2(c) (identification number), 372.4(b) (use of manifest system), 372.4(d)(1) (manifest discrepancies) and

(10)___ Accumulation areas are exempt, provided that they are used to accumulate waste in accordance with the requirements of subparagraph 372.2(a)(8)(i) of this Title - 373-1.1(d)(1)(xiv).

(11)___ A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of paragraph 372.2(a)(4) of this Title at a transfer facility for a period of ten calendar days or less is exempt, provided that the transfer facility is not located on the site of any commercial hazardous waste treatment, storage or disposal facility subject to permitting under this Part. Complete Part VII - 373-1.1(d)(1)(xi).

3. Hazardous Waste Generation/Treatment/Storage/Disposal

A. Describe only the activities that result in the generation of hazardous waste. Include manufacturing processes that generate hazardous waste. [Do not include hazardous waste treatment processes.]

① Nickel graphite + Aluminum powders from Ni wire production D001/D002
② Chromic oxide from ceramic production - D007 [discont'd]
③ Aluminum powder - off-spec + baghouse dust D001/D003
④ Super-Agitene - cleaner - D001

B. Describe any on-site hazardous waste treatment processes that result in the generation of hazardous waste (exempt and/or non-exempt). Include process diagrams if available.

None

C. Identify the hazardous wastes that are on-site, the quantity of each, the storage method, the type and size of containers or tanks used and their location in the storage area. (Be as specific as possible.)

(1) Accumulation Areas [NOTE: Waste in accumulation areas must be included as part of the total quantity of waste on-site]:

None

(6) Any other treatment, storage or disposal units such as lagoons, surface impoundments, landfills, waste piles, incinerators, energy recovery units, or underground injection units:

None

4. Status Identification:

A. **Generator Status**

(1) ___ Conditionally Exempt Small Quantity Generator (CESQG) - generates less than 100 kg/mo of non-acute hazardous waste or 1 kg/mo of acute hazardous waste. Complete Part III - 372.1(f)(6), 371.1(f)(7).

(2) X Small Quantity Generator (SQG) - generates more than 100 kg/mo but less than 1,000 kg/mo of non-acute hazardous, and accumulates no more than 6,000 kg of non-acute hazardous waste on-site. Complete Part IV - 372.2(a)(8)(iii).

4/17/97 (3) ~~X~~ Generator - generates more than 1,000 kg/mo of non-acute hazardous waste or generates more than 1 kg of acute hazardous waste in a calendar month. Complete Part V - 372.2(a)(8)(ii).

B. **Treatment, Storage or Disposal Facility (TSDF)**

(1) NO Hazardous waste is stored greater than 90 days.*,**

(2) NO Hazardous waste is received from off-site and not beneficially used, reused or legitimately recycled or stored.*

(3) NO Hazardous waste is treated on-site in non-exempt units.*

(4) NO Hazardous waste is disposed of on-site.*

* (If checked Complete Part VI and/or appropriate Appendices)
** (Do not complete for generators only that have exceeded the 90 day storage limit.)

C. **Transporter Status**

Yes ___ No X Hazardous waste is transported by this company.

If Yes, Complete Part VII Permit No. _____

NVD 981558570

Part IV

SMALL QUANTITY GENERATOR (SQG)

Revised 4/17/97

Indicate:

X Violations

Indicate:

X Satisfactory
NA Not Applicable

SQG - Small Quantity Generator - The generator who generates more than 100 kg/mo but less than 1,000 kg/mo of non-acute hazardous waste in a calendar month, and accumulates less than 6,000 kg on-site has complied with the following:

1. General Requirements - 372.2(a)

(a) ___ The generator has made a determination as to whether or not his solid waste is a hazardous waste - 372.2(a)(2). — X

(b) ___ The generator has obtained an EPA identification number - 372.2(a)(3). — X

(c) ___ Before transporting or offering hazardous waste* for transportation off-site the generator has packaged the waste in accordance with the applicable USDOT regulations - 372.2(a)(4). — NA

(d) ___ Before transporting or offering hazardous waste* for transportation off-site the generator has labeled each package of waste in accordance with the applicable USDOT regulations - 372.2(a)(5). —

(e) ___ Before transporting or offering hazardous waste for* transportation off-site the generator has marked each container or package of waste properly - 372.2(a)(6). —

* Note: This does not apply to drums in storage.

(f) X The quantity of non-acute hazardous waste accumulated on-site never exceeds 6,000 kg. - 372.2(a)(8)(iii)(a). —

(g) ___ Waste may be stored for up to 180 days unless the disposal facility is 200 miles or more away. Storage up to 270 days is then allowed - 372.2(a)(8)(iv). — X

(h) ___ At all times there must be at least one employee on-site or on call with the responsibility for coordinating emergency measures - 372.2(a)(8)(iii)(e)(1). — X

(i) ___ The name and phone number of the emergency coordinator must be posted next to the telephone - 372.2(a)(8)(iii)(e)(2)(i). — X

(j) ___ The location of fire extinguishers and spill control material and, if present, fire alarm must be posted next to the telephone - 372.2(a)(8)(iii)(e)(2)(ii). — X

Indicate

X Violations

Indicate

X Satisfactory
NA Not Applicable

and number that are leaking or corroded. Be detailed and specific) - 373-3.9(b).

(d) ___ Hazardous waste is stored in containers made of compatible materials - 373-3.9(c). (If not, please explain.) X

(e) ___ All containers except those in use are closed - 373-3.9(d)(1). X

(f) ___ Containers holding hazardous waste must not be opened, handled or stored in a manner which may rupture the containers or cause them to leak - 373-3.9(d)(2). X

(g) ___ The containers and storage area are inspected at least weekly - 373-3.9(e). By maintenance staff X
Waste is burned

(h) ___ The generator complies with the following special requirements related to incompatible wastes - 373-3.9(g):

(1) ___ Incompatible wastes, or incompatible wastes and materials, are not placed in the same container, or in an unwashed container that previously held an incompatible waste or material unless the placement is conducted to prevent the following - 373-3.9(g)(1) & (2): X

(a) ___ the generation of extreme heat or pressure, fire or explosion, or violent reaction - 373-3.2(h)(2)(i); ___

(b) ___ production of uncontrolled toxic mists, fumes, dusts or gases in sufficient quantities to pose a risk of fire or explosions - 373-3.2(h)(2)(ii); ___

(c) ___ production of uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions - 373-3.2(h)(2)(iii); ___

(d) ___ damage to the structural integrity of the device or facility containing the waste - 373-3.2(h)(2)(iv); or ___



P2SUL002029

Indicate

X Violations

Indicate

X Satisfactory
NA Not Applicable

(e) ___ Accumulated waste and precipitation must be removed as necessary to prevent overflow - 373-2.9(f)(1)(v). ___

4. Tank Storage Requirements - 3.10(1)

(a) General operating requirements

NA

(1) ___ Hazardous wastes or treatment reagents must not be placed in a tank if they could cause the tank or its inner liner to fail - 373-3.10(1)(2)(ii).

(2) ___ Uncovered tanks must be operated to ensure at least 60 centimeters (2 feet) of freeboard, unless there is adequate containment - 373-3.10(1)(2)(iii).

(3) ___ Where hazardous waste is continuously fed into a tank, the tank must be equipped with a means to stop this inflow - 373-3.10(1)(2)(iv).

(4) ___ The owner or operator must mark all tanks with the words "Hazardous Waste" and with other words that identify the contents of the tanks. For underground tanks, the markings must be placed on a sign in the area above the tank - 372.2(a)(8)(iii)(d), 373-1.1(d)(1)(iii)(c)(3).

(b) Tank(s) are inspected each operating day for:

(1) ___ discharge control equipment (e.g. waste feed cutoff systems, bypass systems and drainage systems) - 373-3.10(1)(3)(i).

(2) ___ monitoring equipment (e.g. pressure and temperature gauges) - 373-3.10(1)(3)(ii).

(3) ___ level of waste in tank to ensure proper freeboard - 373-3.10(1)(3)(iii).

(c) Tank(s) are inspected weekly for:

(1) ___ corrosion or leaking of fixtures or seams - 373-3.10(1)(3)(iv).

(2) ___ erosion or obvious signs of leakage (e.g. wet spots or dead vegetation) of the construction materials of, and the area immediately surrounding discharge confinement structures (e.g. dikes) - 373-3.10(1)(3)(v).

(d) Tank closure

(1) ___ At closure, all hazardous waste must be removed from tanks, discharge control equipment and discharge confinement structures - 373-3.10(1)(4).

Indicate

X Violations

Indicate

X Satisfactory
NA Not Applicable

or material unless the mixture or commingling is conducted to prevent the following - 373-3.10(e)(6):

(a) ___ generation of extreme heat or pressure, fire or explosions, or violent reactions; NA

(b) ___ production of uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(c) ___ production of uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(d) ___ damage to the structural integrity of the device or facility containing the waste; or

(e) ___ through other like means threaten human health or the environment.

(g) Sole Source Aquifer Requirements for Tank Storage

(1) ___ Small quantity generator located over a sole source aquifer must provide secondary containment system for tanks, at the time more than 185 gallons of liquid hazardous waste are accumulated, or at the time any liquid hazardous waste are accumulated in underground storage tanks - 373-1.1(d)(1)(iv)(g).

(2) ___ Secondary containment system that meets the requirement of 373-3.10(d) must be provided as follows: 373-1.1(d)(1)(iv)(f)(2).

(a) ___ for existing tank not subject to secondary containment requirements prior to the effective date of these regulations - by December 22, 1998 [Complete Attachment IV-A, if applicable] - 373-1.1(d)(1)(iv)(g)(1).

(b) ___ for tank, constructed or installed on or after the effective date of these regulations, prior to use [Complete Attachment IV-A, if applicable] - 373-1.1(d)(1)(iv)(g)(2). ✓

5. Manifest, Reporting and Recordkeeping Requirement - 372.2(b) & (c)

(a) ___ Hazardous waste is shipped off-site with an accompanying manifest - 372.2(b)(5)(i). X

If "violation" is checked, please elaborate.

_____

_____



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| Indicate | Indicate |
|---|---|
| X Violations | X Satisfactory<br>NA Not Applicable |

(f) ___ The generator has received signed copies (from the TSD facility) of all manifests for wastes shipped off-site more than 35 days ago: X

___ If not, exception reports have been submitted covering these shipments - 372.2(c)(3). X

(g) ___ The generator must distribute copies of the manifest as specified on the manifest form - 372.2(b)(3). X

(h) ___ For international shipments the generator has done the following - 372.2(b)(4)(i):

(1) ___ The EPA and the Department have been notified 60 days prior to shipment of the hazardous waste destined for treatment, storage or disposal outside the United States - 372.5(c)(1). NA

(2) ___ Delivery of the wastes has been confirmed by the consignee within 90 days of acceptance by initial transporter - 372.5(e)(2).

(3) ___ Primary exporters of hazardous waste must file with the Administrator and the Department no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all hazardous waste exported during the previous calendar year - 372.5(f)(1).

(i) ___ The generator has complied with the requirements of Section 372.6 for interstate shipments - 372.2(b)(4)(ii). X

(j) ___ The generator has complied with the requirements for shipping by rail or water (bulk) found in Section 372.7 - 372.2(b)(4)(iii). NA

(k) ___ The requirements of this section (Manifest Requirements) do not apply to hazardous waste produced by generators of less than 1,000 kg/m provided the following conditions are met - 372.2(b)(7): NA

(1) ___ The waste is reclaimed under a contractual agreement pursuant to which - 372.2(b)(7)(i):

(a) ___ the type of waste and frequency of shipments are specified in the agreement - 372.2(b)(7)(i)(a);

(b) ___ the vehicle used for transporting the waste and delivering regenerated material back to the generator is owned and operated by the reclaimer - 372.2(b)(7)(i)(b); and

(c) ___ the reclaimer complies with Part 364 - 372.2(b)(7)(i)(c).



P2SUL002033

Indicate

X Violations

Indicate

X Satisfactory
NA Not Applicable

(1) ___ An internal communication or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel - 373-3.3(c)(1); X

(2) ___ A device, such as a telephone (immediately available at the scene of operations) or a hand-held, two-way radio capable of summoning emergency assistance from local police departments, fire teams - 373-3.3(c)(2); X

(3) ___ Portable fire extinguishers, fire control equipment, spill control equipment and decontamination equipment - 373-3.3(c)(3); and X

(4) ___ Water at adequate volume and pressure to supply water hose streams, or foam-producing equipment, or automatic sprinklers, or water spray systems - 373-3.3(c)(4). X

(c) ___ Facility communications or ADT alarm systems, fire protection equipment, and spill control equipment are tested and maintained as necessary to assure their proper operation in time of emergency - 373-3.3(d). X

(d) ___ Personnel involved in hazardous waste operations have immediate access to an internal alarm or emergency communication device - 373-3.3(e). X

(e) ___ The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency unless aisle space is not needed for any of these purposes - 373-3.3(f). X

(f) ___ The facility owner or operator has attempted to make the following arrangements as appropriate with local authorities for the type of waste handled at the facility and the potential need for the services of these organizations - 373-3.3(g)(1): X

(1) ___ Arrangements to familiarize police, fire departments and emergency response teams with the functions and layout of the facility - 373-3.3(g)(1)(i); X

(2) ___ Where more than one police and fire department might respond to an emergency, an agreement designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to primary emergency authority - 373-3.3(g)(1)(ii); NA

Company Name Sulzer-Metco, Inc - Milford

EPA ID# No. N V D 9 8 1 5 5 8 5 7 0

Region/Inspector I / K Murphy

Inspection Date 9/27/96

APPENDIX A
Land Disposal Restrictions

(For small quantity generators, generators and TSD's that are also generators)

I. Waste Identification

A. List the hazardous wastes generated by the company. (List by waste code)

D001/D003 Aluminum powder - off-spec & baghouse

D001/D003 Al/Ni powder from wire mfg.

D001 Super-Agitene cleaner

D007 Chromic oxide

II. Dilution Prohibited as a Substitute for Treatment

| | YES | NO |
|---|---|---|
| A. Other than as described in B. below, has the generator, in any way diluted a restricted waste or the residual from treatment of a restricted waste: - 376.1(c)(1). | ___ | X |
| 1. As a substitute for adequate treatment to achieve compliance with section 376.4. | ___ | X |
| 2. To otherwise avoid a prohibition in section 376.3. | ___ | X |



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prohibited under 376.3(e), the generator has determined what underlying hazardous constituents (as defined in 376.1(b)) are reasonably expected to be present in the D001 or D002 waste - 376.1(g)(1).

* High TOC Ignitable Liquids Subcategory - greater than or equal to 10% total organic carbon.

B. **Restricted Wastes not Meeting Treatment Standards.**

___ For restricted wastes that do not meet the applicable treatment standards set forth in 376.4 or that exceed the prohibition levels in 376.3(b), the generator has notified the treatment or storage facility in writing. The notice must contain the following information: - 376.1(g)(1)(i). X

1. ___ EPA Hazardous Waste Number - 376.1(g)(1)(i)(a). X
2. ___ The corresponding treatment standards for wastes F001-F005, F039, wastes prohibited under 376.3(b), and for underlying hazardous constituents in D001 and D002 if these wastes are prohibited under 376.3(e). NA
3. ___ For all other restricted wastes not included in 2. above: X
   a. ___ The treatment standard, or X
   b. ___ A reference on the notification that, includes: ___
      (1) ___ The applicable wastewater or nonwastewater category. ___
      (2) ___ The applicable waste specific criteria within a waste code. ___
      (3) ___ The section(s) and paragraph(s) where the applicable treatment standard appears. ___
4. ___ For treatment standards expressed as specified technologies, the applicable five-letter treatment code - 376.1(g)(1)(i)(b). X
5. ___ The manifest number of the shipment - 376.1(g)(1)(i)(c). X
6. ___ For hazardous debris, the contaminants subject to treatment as provided by 376.4(g)(2) and the following statement: "This hazardous debris is subject to the alternative treatment standards of 376.4(g)" - 376.1(g)(1)(i)(d). NA
7. ___ Waste analysis data, where available - 376.1(g)(1)(i)(e). X



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shipment the generator has submitted a notice to the facility receiving the waste stating that the waste is not prohibited from land disposal - 376.1(g)(1)(iii).

2. ___ The notice includes the following information.

NA

a. ___ EPA Hazardous Waste number - 376.1(g)(1)(iii)(a).

b. ___ For wastes F001-F005, F039, and wastes prohibited in 376.3(b), the corresponding treatment standards - 376.1(g)(1)(iii)(b).

c. ___ For all other restricted wastes not included in b. above: - 376.1(g)(1)(iii)(b).

(1) ___ The treatment standard, or

(2) ___ A reference, including:

(a) ___ The applicable wastewater or nonwastewater category.

(b) ___ The applicable waste specific criteria within a waste code.

(c) ___ The section(s) and paragraph(s) where the applicable treatment standard appears.

(d) ___ For treatment standards expressed as specified technologies, the applicable five-letter treatment code - 376.1(g)(1)(iii)(b).

d. ___ The manifest number of the shipment - 376.1(g)(1)(iii)(c). __

e. ___ Waste analysis date, where available - 376.1(g)(1)(iii)(d).

f. ___ For hazardous debris, the contaminants subject to treatment as provided by paragraph 376.4(g)(2) and the following statement: "This hazardous debris is subject to the alternative treatment standards of 376.4(g)" - 376.1(g)(1)(iii)(e).

g. ___ The date the waste is subject to the prohibitions - 376.1(g)(1)(iii)(f).

E. **Treatment of Prohibited Wastes in Containers or Tanks.**

___ For generators managing a prohibited waste in tanks, containers, or containment buildings, regulated under Part 373-1 and treating that waste in those tanks or



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b. ___ That the waste is excluded from the definition of hazardous or solid waste or exempted from regulation, and NA

c. ___ The disposition of the waste. NA

4. ___ Generators must retain on-site a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation for at least five years from the date that the wastes were last sent to on-site or off-site treatment, storage, or disposal. This requirement applies to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste, or exempted from regulation, subsequent to the point of generation - 376.1(g)(1)(vii). ✓

G. **Alternate Treatment Standards for Lab Packs.**

1. ___ For generators managing lab packs containing wastes identified in Appendix 38 (organometallics), who wish to use the alternate treatment standards, with each shipment the generator has: - 376.1(g)(1)(viii). NA

a. ___ Submitted a notice to the treatment facility in accordance with 376.1(g)(1)(i). [Complete Item III.B., page A-3]

b. ___ Made a waste determination in compliance with 376.1(g)(1)(v) & (vi). [Complete Items III.F.1-3., pgs. A-6 through A-7.]

c. ___ Submitted the certification provided in 376.1(g)(1)(viii), signed by an authorized representative.

2. ___ For generators managing lab packs containing organic wastes specified in Appendix 39, who wish to use the alternate treatment standards, with each shipment the generator has: - 376.1(g)(1)(ix).

a. ___ Submitted a notice to the treatment facility in accordance with 376.1(g)(1)(i). [Complete Item III.B., page A-3]

b. ___ Made a waste determination in compliance with 376.1(g)(1)(v) & (vi). [Complete Items III.F.1-3., page A-6 through A-7.]

c. ___ Submitted the certification provided in 376.1(g)(1)(ix), signed by an authorized representative.



P2SUL002038

## IV. Special Rules Regarding Wastes That Exhibit a Characteristic

A. ___ The generator has determined each waste code applicable to the waste in order to determine the applicable treatment standard under section 376.4. For the purposes of Part 376, the waste must carry the code for a listed waste and also any characteristic code if the waste also exhibits that characteristic, except as specified below in Item B. If the generator determines that the waste displays the characteristic of ignitability (D001)(and is not in the High TOC Ignitable Liquids Subcategory or is not treated by INCIN, FSUBS, or RORGS of subdivision 376.4(c), Table 1), or the characteristic of corrosivity (D002), and is prohibited under subdivision 376.3(e) of this Part, the generator must determine what underlying hazardous constituents (as defined in subdivision 376.1(b) of this Part) - 376.1(h)(1). X

B. ___ For a prohibited waste that is listed and also exhibits a characteristic, the treatment standard for the listed waste code will operate in lieu of the standard for the characteristic code, provided the treatment standard for the listed waste includes a treatment standard for the consitituent that causes the waste to exhibit the characteristic. Otherwise the waste must meet the treatment standards for all applicable listed and characteristic codes - 376.1(h)(2). NA

C. ___ Prior to land disposal, all prohibited wastes which exhibit a characteristic have been treated to the treatment standards provided in 376.4 - 376.1(h)(3). NA

D. ___ For characteristic hazardous wastes that have been treated and are no longer hazardous, the initial generator has shipped the wastes to a Part 360 facility and sent the notification and certification to the Commissioner* - 376.1(h)(4). NA

* Notification is not required to be sent to the Part 360 facility.

1. ___ The notification includes the following information: - 376.1(h)(4)(i).

   a. ___ The name and address of the Part 360 facility receiving the waste - 376.1(h)(4)(i)(a).

   b. ___ A description of the waste as initially generated, including the applicable EPA Hazardous Waste Number(s) and treatability group(s) - 376-1(h)(4)(i)(b).

   c. ___ The treatment standards applicable to the waste at the point of generation - 376.1(h)(4)(i)(c).

b. Persons have been granted an extension to the effective date of a prohibition, or - 376.3(b)(2)(ii). ___ YES X NO

c. They meet the applicable treatment standards, or are in compliance with all prohibitions set forth in Part 376 or RCRA section 3004(d) - 376.3(b)(2)(iii). ___ YES X NO

3. ___ The wastes found in 1.(a)-(c) above have been subjected to the Paint Filter Liquids Test to determine if they are liquids - 376.3(b)(3). NA

4. ___ The initial generator of a liquid hazardous waste containing PCBs or a liquid or nonliquid hazardous waste containing HOCs has tested the waste (not an extract or filtrate) or used knowledge of the waste to determine if the waste equals or exceeds the specified prohibition levels (50 ppm for PCBs, 1,000 ppm for HOCs) - 376.3(b)(4). NA

C. **Prohibited Waste Found in 376.3(c) [First, Second, and Third Third Wastes].**

1. ___ The initial generator has tested a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentraction in the waste extract or the waste, or used knowledge of the waste to determine if it exceeds the applicable treatment standards - 376.3(c)(7). X

D. **Waste Specific Prohibitions - Ignitable and Corrosive Characteristic Wastes.**

1. ___ The wastes specified in 6 NYCRR 371.3(b) as D001 (and is in not the High TOC Ignitable Liquids Subcategory), and specified in 371.3(c) as D002, that are managed in systems other than those whose dischage is regulated under Titles 7 and 8 of Article 17 of the ECL, the Clean Water Act (CWA) (see subdivision 370.1(e)), or that inject in Class 1 deep wells regulated under the Safe Drinking Water Act (SDWA) (see subdivision 370.1(e)), or that are zero dischargers that engage in Title 7 and 8 or CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. Title 7 and 8 and/or CWA-equivalent treatment means biological treatment for organics, alkaline chlorination of ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other technology that can be demonstrated to perform equally or greater than these technologies* - 376.3(d). NA

* (Note: Deep well injection of hazardous waste is not allowed in New York State.).

b. ___ Complied with all storage requirements of 372, 373-1, and 373-3 - 376.5(a)(1)(i). X

c. ___ Stored all restricted wastes for 180/270 days or less - 376.5(a)(1)(i). X

2. ___ The generator has:

a. ___ Stored restricted waste in tanks or containers on-site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal - 376.5(a)(1)(i). X

b. ___ Complied with all storage requirements of 372, 373-1, 373-2, and 373-3 - 376.5(a)(1)(i). X

c. ___ Stored all restricted wastes for 90 days or less - 376.5(a)(1)(i). X

**PERKIN ELMER**

The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

March 3, 1992

New York Emergency Response Commission
New York State Department of Environmental
Conservation
Bureau of Spill Prevention & Response
50 Wolf Road
Room 326
Albany, NY 12233-3510

Ref: SARA TITLE III - Tier II Reports

Dear Sir/Madam:

Enclosed please find the SARA TITLE III - Tier II Reports for our three facilities.

If we could be of further assistance, please contact me.

Sincerely,

Joseph Macri
Manager Facilities

JM:ecb
Enclosures
cc: A.B. Mazzone
C.L. Conroy

SARATII.pwp

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The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

March 3, 1992

Local Emergency Planning Committee
c/o Civil Preparedness Office
140 15th Street
Mineola, NY 11501

Ref: SARA TITLE III - Tier II Reports

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Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

March 3, 1992

State Emergency Response Commission
c/o State Emergency Management Office
Building 22, State Campus
Albany, NY 12226-5000

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1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

March 3, 1992

Environmental Protection Agency
P.O. Box 70266
Washington, DC 20024-0266

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1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

March 3, 1992

Fire Chief
Hicksville Fire Department
E. Marie Street
Hicksville, NY 11801

Ref: SARA TITLE III - Tier II Reports

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Enclosed please find the SARA TITLE III - Tier II Reports for our three facilities.

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Manager Facilities

JM:ecb
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cc: A.B. Mazzone
C.L. Conroy

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**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

March 3, 1992

Fire Chief
Syosset Fire Department
Cold Spring Road
Syosset, NY 11791

Ref: SARA TITLE III - Tier II Reports

Dear Sir/Madam:

Enclosed please find the SARA TITLE III - Tier II Reports for our three facilities.

If we could be of further assistance, please contact me.

Sincerely,

Joseph Macri
Manager Facilities

JM:ecb
Enclosures
cc: A.B. Mazzone
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SARATII.pwp

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The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

March 3, 1992

Fire Chief
Westbury Fire Department
Maple Avenue
Westbury, NY 11590

Ref: SARA TITLE III - Tier II Reports

Dear Sir/Madam:

Enclosed please find the SARA TITLE III - Tier II Reports for our three facilities.

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Sincerely,

Joseph Macri
Manager Facilities

JM:ecb
Enclosures
cc: A.B. Mazzone
C.L. Conroy

SARATII.pwp

Form Approved OMB No. 2050-0072

# Tier Two
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**

*Specific Information by Chemical*

**Facility Identification**

Name: PERKIN-ELMER CORPORATION METCO DIVISION
Street: 220 MILLER PLACE
City: HICKSVILLE County: NASSAU State: NY Zip: 11801
SIC Code: 3399 Dun & Bradstreet Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID #: ____ Date Received: ____

**Owner/Operator Name**

Name: JOSEPH MACRI Phone: (516) 334-1300
Mail Address: 1101 PROSPECT AVENUE, WESTBURY, NY 11590

**Emergency Contact**

Name: JOSEPH MACRI Title: MANAGER FACILITIES
Phone: (516) 334-1300 EXT. 2374 24 Hr Phone: (800) 424-9300 CHEMTREC

Name: ____ Title: ____
Phone: ( ) ____ 24 Hr Phone: ( ) ____

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 19 91

☐ Check if information below is identical to the information submitted last year

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Storage Codes and Locations (Non-Confidential) — Storage Locations | Optional |
|---|---|---|---|---|
| CAS 7440-02-0 Trade Secret ☐<br>Chem. Name: Nickel Powder<br>Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [ ] Gas [ ] EHS [ ]<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 1 4 Warehouse<br>N 1 4 Production Lines<br>R 1 4 Production Lines - Hardened Steel Hoppers | ☐ |
| CAS 7440-47-3 Trade Secret ☐<br>Chem. Name: Chromium Powder<br>Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [ ] Gas [ ] EHS [ ]<br>EHS Name: | [X] Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 03 Max. Daily Amount (code)<br>03 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 1 4 Warehouse<br>N 1 4 Production Lines<br>R 1 4 Production Lines - Hardened Steel Hoppers | ☐ |
| CAS 7440-48-4 Trade Secret ☐<br>Chem. Name: Cobalt Powder<br>Check all that apply: Pure [X] Mix [X] Solid [X] Liquid [ ] Gas [ ] EHS [ ]<br>EHS Name: | [X] Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 1 4 Warehouse<br>N 1 4 Production Lines<br>R 1 4 Production Lines - Hardened Steel Hoppers | ☐ |

**Certification** *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 2 and that based on my inquiry of those individuals responsible for obtaining the information I believe that the submitted information is true, accurate and complete.

JOSEPH MACRI MANAGER FACILITIES
Name and official title of owner/operator OR owner/operator's authorized representative

Signature: Joseph Macri Date Signed: 2/28/92

**Optional Attachments**

☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of risks and other safeguard measures

Form Approved OMB No. 2050-0072

# Tier Two
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**

*Specific Information by Chemical*

**Facility Identification**

Name: PERKIN-ELMER CORPORATION METCO DIVISION
Street: 220 MILLER PLACE
City: HICKSVILLE County: NASSAU State: NY Zip: 11801
SIC Code: 3399 Dun & Bradstreet Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID #: ____ Date Received: ____

**Owner/Operator Name**

Name: JOSEPH MACRI Phone: (516) 334-1300
Mail Address: 1101 PROSPECT AVENUE, WESTBURY, NY 11590

**Emergency Contact**

Name: JOSEPH MACRI EXT 2374 Title: MANAGER FACILITIES
Phone: (516) 334-1300 24 Hr Phone: (800) 424-9300 CHEMTREC
Name: ____ Title: ____
Phone: ( ) ____ 24 Hr Phone: ( ) ____

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 19 91

☐ Check if information below is identical to the information submitted last year

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Storage Codes and Locations (Non-Confidential) — Storage Locations | Optional |
|---|---|---|---|---|
| CAS 7429-90-5 ☐ Trade Secret<br>Chem Name: Aluminum Powder<br>Check all that apply: [X] Pure [X] Mix [X] Solid ☐ Liquid ☐ Gas ☐ EHS<br>EHS Name: | [X] Fire<br>☐ Sudden Release of Pressure<br>[X] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 14 Warehouse<br>N 14 Production Lines<br>R 14 Production Lines - Hardened Steel Hoppers | ☐ |
| CAS 13444-25-1 ☐ Trade Secret<br>Chem Name: Aluminum Oxide Powder<br>Check all that apply: [X] Pure [X] Mix [X] Solid ☐ Liquid ☐ Gas ☐ EHS<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 14 Warehouse<br>N 14 Production Lines<br>R 14 Production Lines - Hardened Steel Hoppers | ☐ |
| CAS 13114-23-4 ☐ Trade Secret<br>Chem Name: Zirconium Oxide Powder<br>Check all that apply: [X] Pure [X] Mix [X] Solid ☐ Liquid ☐ Gas ☐ EHS<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>[X] Immediate (acute)<br>☐ Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | D 14 Warehouse<br>N 14 Production Lines<br>R 14 Production Lines - Hardened Steel Hoppers | ☐ |

**Certification** *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 2 and that based on my inquiry of those individuals responsible for obtaining the information I believe that the submitted information is true, accurate, and complete.

JOSEPH MACRI MANAGER FACILITIES
Name and official title (type or print) Signature: Joseph Macri Date Signed: 2/28/92

**Optional Attachments**

☐ I have attached a site plan
I have attached a list of site coordinate abbreviations
I have attached a description of dikes and other safeguard measures

Form Approved OMB No. 2050-0072

# Tier Two

**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**

*Specific Information by Chemical*

**Facility Identification**

Name: PERKIN-ELMER CORPORATION METCO DIVISION
Street: 1101 PROSPECT AVENUE
City: WESTBURY County: NASSAU State: NY Zip: 11590
SIC Code: 3542 Dun & Bradstreet Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID #: ____ Date Received: ____

**Owner/Operator Name**

Name: JOSEPH MACRI Phone: (516) 334-1300
Mail Address: 1101 PROSPECT AVENUE, WESTBURY, NY 11590

**Emergency Contact**

Name: JOSEPH MACRI Title: MANAGER FACILITIES
Phone: (516) 334-1300 EXT. 2374 24 Hr Phone: (800) 424-9300 CHEMTREC

Name: ____ Title: ____
Phone: ( ) ____ 24 Hr Phone: ( ) ____

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 19 91

☐ Check if information below is identical to the information submitted last year

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Storage Codes and Locations (Non-Confidential) — Storage Locations | Optional |
|---|---|---|---|---|
| CAS 7440508 Trade Secret ☐<br>Chem. Name: Copper Powder<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐, EHS ☐<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 03 Max. Daily Amount (code)<br>03 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | Container Type: N, Pressure: 1, Temperature: 4<br>Stock Warehouse | ☐ |
| CAS 7440020 Trade Secret ☐<br>Chem. Name: Nickel<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐, EHS ☐<br>EHS Name: | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | Container Type: N, Pressure: 1, Temperature: 4<br>Stock Warehouse | ☐ |
| CAS 7440484 Trade Secret ☐<br>Chem. Name: Cobalt Powder<br>Check all that apply: Pure X, Mix X, Solid X, Liquid ☐, Gas ☐, EHS ☐<br>EHS Name: | X Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>X Immediate (acute)<br>X Delayed (chronic) | 03 Max. Daily Amount (code)<br>03 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | Container Type: N, Pressure: 1, Temperature: 4<br>Stock Warehouse | ☐ |

**Certification** *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 3 and that based on my inquiry of those individuals responsible for obtaining the information I believe that the submitted information is true, accurate and complete.

JOSEPH MACRI — MANAGER FACILITIES — Joseph Macri — 2/28/92

Name and official title of owner/operator OR owner/operator's authorized representative — Signature — Date signed

**Optional Attachments**

☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

Form Approved OMB No. 2050-0072

# Tier Two
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**

*Specific Information by Chemical*

**Facility Identification**

Name: PERKIN-ELMER CORPORATION METCO DIVISION
Street: 1101 PROSPECT AVENUE
City: WESTBURY County: NASSAU State: NY Zip: 11590
SIC Code: 3542 Dun & Bradstreet Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID #: ____ Date Received: ____

**Owner/Operator Name**

Name: JOSEPH MACRI Phone: (516) 334-1300
Mail Address: 1101 PROSPECT AVENUE, WESTBURY, NY 11590

**Emergency Contact**

Name: JOSEPH MACRI Title: MANAGER FACILITIES
Phone: (516) 334-1300 EXT. 2374 24 Hr Phone: (800) 424-9300 CHEMTREC
Name: ____ Title: ____
Phone: ( ) ____ 24 Hr Phone: ( ) ____

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 19 91

☐ Check if information below is identical to the information submitted last year

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Container Type / Pressure / Temperature | Storage Codes and Locations (Non-Confidential) — Storage Locations | Optional |
|---|---|---|---|---|---|
| CAS 7440-47-3 Trade Secret ☐<br>Chem Name: Chromium Powder<br>Check all that apply: [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name: | [X] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 03 Max. Daily Amount (code)<br>03 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | N 1 4 | Stock Warehouse | ☐ |
| CAS 7429-90-5 Trade Secret ☐<br>Chem Name: Aluminum Powder<br>Check all that apply: [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name: | [X] Fire<br>[ ] Sudden Release of Pressure<br>[X] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | N 1 4 | Stock Warehouse | ☐ |
| CAS 1344-28-1 Trade Secret ☐<br>Chem Name: Aluminum Oxide Powder<br>Check all that apply: [X] Pure [X] Mix [X] Solid [ ] Liquid [ ] Gas [ ] EHS<br>EHS Name: | [ ] Fire<br>[ ] Sudden Release of Pressure<br>[ ] Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 04 Max. Daily Amount (code)<br>04 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | N 1 4 | Stock Warehouse | ☐ |

**Certification** *(Read and sign after completing all sections)*

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JOSEPH MACRI — MANAGER FACILITIES — Signature: Joseph Macri — Date signed: 2/28/92

Name and official title of owner/operator or owner/operator's authorized representative

**Optional Attachments**

☐ I have attached a site plan
I have attached a list of site coordinate abbreviations
I have attached a description of dikes and other safeguard measures

Form Approved OMB No. 2050-0072

# Tier Two
**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**

*Specific Information by Chemical*

**Facility Identification**

Name: PERKIN-ELMER CORPORATION METCO DIVISION
Street: 1101 PROSPECT AVENUE
City: WESTBURY County: NASSAU State: NY Zip: 11590
SIC Code: 3542 Dun & Brad Number: 05-773-1663

FOR OFFICIAL USE ONLY — ID #: ____ Date Received: ____

**Owner/Operator Name**

Name: JOSEPH MACRI Phone: (516)334-1300
Mail Address: 1101 PROSPECT AVENUE, WESTBURY, NY 11590

**Emergency Contact**

Name: JOSEPH MACRI Title: MANAGER FACILITIES
Phone: (516) 334-1300 EXT. 2374 24 Hr. Phone: (800)424-9300 CHEMTREC

Name: ____ Title: ____
Phone: ( ) ____ 24 Hr. Phone: ( ) ____

*Important: Read all instructions before completing form*

Reporting Period: From January 1 to December 31, 19 91

☐ Check if information below is identical to the information submitted last year.

| Chemical Description | Physical and Health Hazards (check all that apply) | Inventory | Storage Codes and Locations (Non-Confidential) — Storage Locations | Optional |
|---|---|---|---|---|
| CAS 1089-95-2 Trade Secret ☐<br>Chem Name: Phenol<br>Check all that apply: Pure [X] Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS [X]<br>EHS Name: Phenol | [X] Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>[X] Immediate (acute)<br>[X] Delayed (chronic) | 02 Max. Daily Amount (code)<br>02 Avg. Daily Amount (code)<br>365 No. of Days On-site (days) | F14 Stock Warehouse | ☐ |
| CAS ____ Trade Secret ☐<br>Chem Name: ____<br>Check all that apply: Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS ☐<br>EHS Name: ____ | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>☐ Immediate (acute)<br>☐ Delayed (chronic) | ☐☐ Max. Daily Amount (code)<br>☐☐ Avg. Daily Amount (code)<br>☐☐☐ No. of Days On-site (days) | ☐☐☐ ____ | ☐ |
| CAS ____ Trade Secret ☐<br>Chem Name: ____<br>Check all that apply: Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS ☐<br>EHS Name: ____ | ☐ Fire<br>☐ Sudden Release of Pressure<br>☐ Reactivity<br>☐ Immediate (acute)<br>☐ Delayed (chronic) | ☐☐ Max. Daily Amount (code)<br>☐☐ Avg. Daily Amount (code)<br>☐☐☐ No. of Days On-site (days) | ☐☐☐ ____ | ☐ |

**Certification** *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted on pages one through 3 and that based on my inquiry of those individuals responsible for obtaining the information I believe that the submitted information is true, accurate, and complete.

JOSEPH MACRI — MANAGER FACILITIES
Name and official title of owner/operator OR owner/operator's authorized representative

Joseph Macri — 2/28/92
Signature — Date signed

**Optional Attachments**

☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

**New York State Department of Environmental Conservation**
**50 Wolf Road, Albany, New York 12233** -3501

**Thomas C. Jorling**
**Commissioner**

September 1988

Dear Chemical Facility Owner:

Enclosed is a copy of the newly adopted Hazardous Substances Bulk Storage Regulations (6NYCRR Parts 595-597). These regulations will be implemented by the New York State Department of Environmental Conservation (DEC), under the authority of Article 40 of the Environmental Conservation Law, to reduce leaks and spills of hazardous substances in New York State.

The regulations require that owners:

- Report spills of hazardous substances to the DEC hotline and take corrective action.
- Register tanks storing hazardous substances with the Department.
- Pay a registration fee.
- Label tanks storing hazardous substances.

Additional regulations are being developed and planned to become effective in 1989. These new regulations will contain:

- Operating Guidelines
- Standards for Design and Construction of Storage Tanks

The most immediate requirement of the regulations is for the registration of hazardous substance tanks as defined in Part 596 of the enclosed regulations. Owners must register their tanks and pay the appropriate fee no later than July 15, 1989. Registration materials are enclosed for your use.

If you have any questions about the regulations or procedures for registering tanks, please contact your local DEC regional office or call the Bulk Storage Helpline at 1-800-242-4351.

Sincerely,

Daniel M. Barolo, P.E.
Director
Division of Water

Enclosure

**P. W. GROSSER**
CONSULTING
ENGINEER &
HYDROGEOLOGIST, P.C.

**KALOGERAS &**
**GROSSER**
CONSULTING
ENGINEERS, P.C.

100
SOUTH
MAIN STREET
SUITE 202
SAYVILLE
NEW YORK
11782-3148

PHONE:
516-589-6353

FAX:
516-589-8705

E-MAIL:
pwgc-kg@worldnet.att.net

July 2, 1998

Mr. Michael Lydon
Environment, Health & Safety Specialist
Sulzer Metco (US) Inc.
1101 Prospect Avenue
Westbury, NY 11590-0201

Re: Proposal for Environmental
Engineering Services

Dear Mr. Lydon:

It was a pleasure meeting with you last week. We appreciate the time you took out of your busy schedule to give us a tour of Sulzer Metco's Prospect Ave and Duffy Ave. facilities. P.W. Grosser Consulting Engineer & Hydrogeologist, P.C. (PWGC) is pleased to have the opportunity to present this scope of work and cost estimate to address the closure requirements for an on-site distribution box and settling tank. We understand that Sulzer Metco would like these structures to be closed in accordance with county, state and federal regulations.

**Background**

Sulzer Metco is preparing to expand the existing building at the Westbury facility southward into the parking lot. A review of available facility plans from the 1950's showed discharges from former laboratories and metalizing departments to a distribution box and settling tank within the foot print of the proposed building. The "distribution box" appears to be a brick manhole with several inlets and outlets. It appears that one outlet leads to the settling tank located approximately ten feet to the south. The settling tank was nearly full with liquid but appeared to be of precast concrete construction. It is believed that these structures have not been used since the 1970's.

**Scope of Work**

The distribution box and settling tank are typically classified by the USEPA as "Class V Underground Injection wells" (UICs) since they discharge directly to the subsurface. The Nassau County Department of Health (NCDH) normally assists the USEPA in documenting the closure procedures carried out by a facility. Upon your approval we will notify USEPA and the NCDH of the existence of these structures and that Sulzer Metco wishes to properly close them. We will prepare and submit a closure plan that identifies the source of the discharges, sampling procedures, the laboratory to be used, remedial procedures if warranted, final closure procedures and associated reporting.

*ACEC*
*Member*
*Supporting*
*Exellence in*
*Engineering*
*Since*
*1990*



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The USEPA will most likely request that prior and current discharges be identified through company records or dye and flush testing. It is important for Sulzer Metco to verify and document that the distribution box and settling tank do not currently receive discharge prior to closing them to avoid back up of existing connected processes. The drawings indicated that the system received storm water roof drainage in the past. It is possible that the UICs still receive discharge since the settling tank was nearly full with liquid. Any sources of discharge need to be identified and rerouted elsewhere. It may prove useful to pump the pool dry, and seal the cover against rain, in order to verify the connecting piping and sources of flow. It will be most economical for the Sulzer Metco facilities department to verify these connections. The USEPA or NCDH may ask to be present when dye or flush testing is performed.

**Sampling**

Once any discharges to the distribution box and settling tank are verified and discontinued, samples will be collected. The purpose of sampling is to characterize the soil and water quality within the UICs. We anticipate that a total of three samples will be submitted to the laboratory for analysis; two composite soil samples and one liquid sample. One composite soil sample will be obtained from each UIC and the liquid sample will be collected from the settling tank. Each composite sample will consist of a combination of three soil samples extracted from the bottom of the UIC. A composite sample is more representative of the soil conditions present in the bottom of the UIC than the collection of one random sample.

The soil samples will be collected using a hand held auger decontaminated prior to sampling with a non-phosphate detergent and tap water rinse. The liquid sample will be collected from the settling tank using a dedicated bailer. The samples will be placed in laboratory supplied glassware, stored on ice and transported to a New York State certified laboratory, (EcoTest Laboratory) for analysis. USEPA UIC closure procedures require the following analyses for each sample:

- Volatile Organic Compounds (VOCs) by EPA Method 8260
- Total Petroleum Hydrocarbons (TPH) by EPA Method 8015b
- 8 RCRA Total Metals

The pH of the liquid sample will also be analyzed in anticipation of ultimate disposal of liquids removed from the settling pool at the Bay Park Facility of the Cedar Creek Water Pollution Control Plant.

**Analytical Results**

Copies of the analytical results including pH will be forwarded to Cedar Creek along with a request to dispose of the liquid contents to their Bay Park facility. Based upon the analytical results, Cedar Creek will decide whether or not to accept the liquid contents of the settling tank.

The soil sample analytical results will be compared to the soil clean up objectives contained in the NYSDEC Technical and Administrative Guidance Memorandum (TAGM HWR-94-4046 Jan. 24,



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1994). Although the TAGM specifically applies to NYSDEC listed hazardous waste sites, the NCDH and USEPA have typically used this document to determine if cleanup of injection wells is appropriate for non-listed sites. If the sample results are within the guidance level concentrations, no remedial action will be required, and final closure procedures will be initiated.

**Remedial Activities**

If the soil analytical results indicate that the structures require remedial activities, contractor costs will be solicited. Typical remedial activities involve the use of a high powered vacuum mounted truck often called a "guzzler" or "vactor" truck. The soils at the bottom of the UIC(s) will be vacuumed out and placed into 55 gallon DOT certified drums to facilitate handling and disposal. The soils will be excavated until it appears as though clean sands are encountered. At that point, end point samples will be collected using the same techniques and analytical methods described earlier.

**Final Closure**

Once the initial sample (or end point sample) indicates the presence of clean soil conditions, the UICs will be closed. Each UIC will be filled with clean inert sand and capped with at least six inches of concrete to grade. Prior to submitting a closure plan to the USEPA, Sulzer Metco should determine if any of the column footings for the building addition overlap the location of the UICs. If so, it may be more appropriate to backfill some portion of the UICs with lean concrete.

The following cost estimate assumes that the initial sampling of the wells will display clean soil conditions and no remedial activities will be required. Without analytical data, it is not possible to estimate the cost for disposal of contaminated soils, however, the day rate for the use of a guzzler was included for your information.

**Cost Proposal**:

| | | |
|---|---|---|
| Task 1 - Closure Plan Preparation and Submittal | | |
| | Lump Sum | $1,500.00 |
| Task 2 - Sample Collection & Analysis | | |
| | Lump Sum | $1,700.00 |
| includes: | VOCs EPA Method 8260 x 3 samples | |
| | TPH EPA Method 8015b x 3 samples | |
| | 8 RCRA Total Metals @ x 3 samples | |
| | pH x 1 sample | |
| Task 3 - Closure Report | | |
| | Lump Sum | $1,200.00 |



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Additional services, such as meetings with regulatory agencies, coordinating with contractors, and construction phase services, will be billed based upon hourly rates plus expenses in accordance with the attached rate schedule.

Our opinion of contractor costs for remedial work assumes one to two days for a Guzzler truck with a two man crew at $1750/day, plus soil disposal costs. Costs for backfilling the holes will be prepared after the scope of remediation is known.

Work will commence upon the receipt of a retainer in the amount of $500 and will be conducted according to the attached terms and conditions. If this proposal meets with your approval, please sign it and return a copy to us with the retainer fee. .

Thank you for the opportunity to propose on this project. Please call if you have any questions or would like to discuss the project further. I look forward to hearing from you.

Very truly yours,
**PWGC/K&G**

J. Robert Holzmacher, P.E.
Senior Project Manager

JRH:adw
encl.

cc: Russell Siedlewicz

J:\BUSDEV\PROPOSAL\PROP1998\LP98-097.WPD



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# PWGC/K&G

## 1998 HOURLY RATE SCHEDULE

| | | |
|---|---|---|
| Principals | $ | 150.00 |
| Senior Hydrogeologist | | 140.00 |
| Senior Project Manager - Engineer | | 132.00 |
| Senior Project Manager - Hydrogeologist | | 105.00 |
| Senior Engineer | | 96.00 |
| Information Systems Manager | | 79.00 |
| Project Manager - Environmental | | 69.00 |
| Project Engineer | | 66.00 |
| CADD System | | 59.00 |
| Project Hydrogeologist | | 57.00 |
| Engineer I | | 55.00 |
| Environmental Scientist | | 45.00 |
| Field Hydrogeologist | | 45.00 |
| Technical Support | | 40.00 |
| Field Support | | 25.00 |

**Client Name:** Sulzer Metco (US) Inc.

**Project Site:** 1101 Prospect Avenue, Westbury, NY 11590-0201

## Terms and Conditions

**Performance of Services:** The Consultant shall perform the services outlined in the proposal provided with this Agreement. The proposal is effective for 120 days.

**Additional Services:** For additional services not included above, the Consultant shall be compensated based upon hourly rates of reimbursement in accordance with the attached rate schedule.

**Access to Site:** Unless otherwise stated, the Consultant will have access to the site for activities necessary for the performance of the services. The Consultant will take reasonable precautions to minimize damage due to these activities, but has not included in the fee the cost of restoration of any resulting damage and will not be responsible for such costs.

**Retainer/Billing/Payment:** The Client agrees to pay the Consultant for all services performed and all costs incurred. Prior to providing services, the Client shall deposit a retainer of $500.00 with the Consultant. Invoices for the Consultant's services shall be submitted, at the Consultant's option, either upon completion of such services or on a monthly basis. Invoices shall be due and payable upon receipt. If any invoice is not paid within 45 days, the Consultant may, without waiving any claim or right against the Client, and without liability whatsoever to the Client, suspend or terminate the performance of services. The retainer shall be credited on the final invoice. Accounts unpaid 30 days after the invoice date may be subject to a monthly service charge of 1.5% (or the maximum legal rate) on the unpaid balance. In the event any portion of an account remains unpaid 60 days after the billing, the Consultant may institute collection action and the Client shall pay all costs of collection, including reasonable attorney's fees.

**Indemnification:** The Client shall, to the fullest extent permitted by law, indemnify and hold harmless the Consultant, his or her officers, directors, employees, agents and subconsultants from and against all damage, liability and cost, including reasonable attorney's fees and defense costs, arising out of or in any way connected with the performance of the services under this Agreement, excepting only those damages, liabilities or costs attributable to the sole negligence or willful misconduct of the Consultant.

**Waiver:** In addition, the Client agrees, to the maximum extent permitted by law, to waive any claims against the Consultant arising out of the performance of these emergency services, except for the sole negligence or willful misconduct of the Consultant.

**Information for the Sole Use and Benefit of the Client:** All opinions and conclusions of the Consultant, whether written or oral, and any plans, specifications or other documents and services provided by the Consultant are for the sole use and benefit of the Client and are not to be provided to any other person or entity without the prior written consent of the Consultant. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of any third party against either the Consultant or the Client.

**Certifications, Guarantees and Warranties:** The Consultant shall not be required to execute any document that would result in the Consultant certifying, guaranteeing or warranting the existence of any conditions.

**Limitation of Liability:** In recognition of the relative risks, rewards and benefits of the project to both the Client and the Consultant, the risks have been allocated such that the Client agrees that, to the fullest extent permitted by law, the Consultant's total liability to the Client for any all injuries, damages, claims, losses, expenses or claim expenses arising out of this Agreement from any cause or causes, shall not exceed $50,000. Such causes include, but are not limited to, the Consultant's negligence, errors, omissions, strict liability, breach of contract or breach of warranty.

**Ownership of Documents:** All documents produced by the Consultant under this Agreement are instruments of the Consultant's professional service and shall remain the property of the Consultant and may not be used by the Client for any other purpose without the prior written consent of the Consultant.

**Dispute Resolution:** Any claims or disputes between the Client and the Consultant arising out of the services to be provided by the Consultant or out of this Agreement shall be submitted to non-binding mediation. The Client and the Consultant agree to include a similar mediation agreement with all contractors, subconsultants, subcontractors, suppliers and fabricators, providing for mediation as the primary method for dispute resolution among all parties.

**Termination of Services:** This Agreement may be terminated at any time by either party should the other party fail to perform its obligations hereunder. In the event of termination for any reason whatsoever, the Client shall pay the Consultant for all services rendered to the date of termination, and all reimbursable expenses incurred prior to termination and reasonable termination expenses incurred as the result of termination.

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | <1 | |
| Barium as Ba | mg/Kg | 190 | |
| Cadmium as Cd | mg/Kg | <1 | |
| Chromium as Cr | mg/Kg | 64 | |
| Lead as Pb | mg/Kg | 210 | |
| Mercury as Hg | mg/Kg | 0.093 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | 0.71 | |
| % Solids | | 77 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn= 16097 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/Kg | <5 |
| Trichlorofluomethane | ug/Kg | <5 |
| 1,1 Dichloroethene | ug/Kg | <5 |
| Methylene Chloride | ug/Kg | <5 |
| t-1,2-Dichloroethene | ug/Kg | <5 |
| 1,1 Dichloroethane | ug/Kg | <5 |
| 2,2-Dichloropropane | ug/Kg | <5 |
| c-1,2-Dichloroethene | ug/Kg | <5 |
| Bromochloromethane | ug/Kg | <5 |
| Chloroform | ug/Kg | <5 |
| 111 Trichloroethane | ug/Kg | <5 |
| 1,1-Dichloropropene | ug/Kg | <5 |
| Carbon Tetrachloride | ug/Kg | <5 |
| Benzene | ug/Kg | <5 |
| 1,2 Dichloroethane | ug/Kg | <5 |
| Trichloroethylene | ug/Kg | <5 |
| 1,2 Dichloropropane | ug/Kg | <5 |
| Bromodichloromethane | ug/Kg | <5 |
| Dibromomethane | ug/Kg | <5 |
| Toluene | ug/Kg | <5 |
| 112 Trichloroethane | ug/Kg | <5 |
| Tetrachloroethene | ug/Kg | <5 |
| 1,3-Dichloropropane | ug/Kg | <5 |
| Chlorodibromomethane | ug/Kg | <5 |
| 1,2 Dibromoethane | ug/Kg | <5 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/Kg | <5 |
| Chlorobenzene | ug/Kg | <5 |
| Ethyl Benzene | ug/Kg | <5 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn= 16098 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| m + p Xylene | ug/Kg | <10 |
| o Xylene | ug/Kg | <5 |
| Styrene | ug/Kg | <5 |
| Bromoform | ug/Kg | <5 |
| Isopropylbenzene | ug/Kg | <5 |
| 1122Tetrachloroethan | ug/Kg | <5 |
| Bromobenzene | ug/Kg | <5 |
| 123-Trichloropropane | ug/Kg | <5 |
| n-Propylbenzene | ug/Kg | <5 |
| 2-Chlorotoluene | ug/Kg | <5 |
| 135-Trimethylbenzene | ug/Kg | <5 |
| 4-Chlorotoluene | ug/Kg | <5 |
| tert-Butylbenzene | ug/Kg | <5 |
| 124-Trimethylbenzene | ug/Kg | <5 |
| sec-Butylbenzene | ug/Kg | <5 |
| p-Isopropyltoluene | ug/Kg | <5 |
| 1,2 Dichlorobenzene | ug/Kg | <5 |
| 1,3 Dichlorobenzene | ug/Kg | <5 |
| 1,4 Dichlorobenzene | ug/Kg | <5 |
| DBCP | ug/Kg | <5 |
| 124-Trichlorobenzene | ug/Kg | <5 |
| Hexachlorobutadiene | ug/Kg | <5 |
| Naphthalene | ug/Kg | <5 |
| 123-Trichlorobenzene | ug/Kg | <5 |
| c-1,3Dichloropropene | ug/Kg | <5 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| t-1,3Dichloropropene | ug/Kg | <5 |
| Acetone | ug/Kg | <50 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16099 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <8000 | |
| #2 Fuel Oil | ug/Kg | 180000* | |
| #4 Fuel Oil | ug/Kg | <8000 | |
| #6 Fuel Oil | ug/Kg | <8000 | |
| Lubricating Oil | ug/Kg | <8000 | |
| Mineral Spirits | ug/Kg | <8000 | |
| JP4 | ug/Kg | <8000 | |
| JP5 | ug/Kg | <8000 | |
| Jet A | ug/Kg | <8000 | |
| Kerosene | ug/Kg | <8000 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn# 16100 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | <1 | |
| Barium as Ba | mg/Kg | 480 | |
| Cadmium as Cd | mg/Kg | 26 | |
| Chromium as Cr | mg/Kg | 2200 | |
| Lead as Pb | mg/Kg | 680 | |
| Mercury as Hg | mg/Kg | 2.5 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | 1.5 | |
| % Solids | | 56 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn= 16101 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/Kg | 3700 |
| Trichlorofluomethane | ug/Kg | <1000 |
| 1,1 Dichloroethene | ug/Kg | 66000 |
| Methylene Chloride | ug/Kg | <1000 |
| t-1,2-Dichloroethene | ug/Kg | <1000 |
| 1,1 Dichloroethane | ug/Kg | 860000 |
| 2,2-Dichloropropane | ug/Kg | <1000 |
| c-1,2-Dichloroethene | ug/Kg | <1000 |
| Bromochloromethane | ug/Kg | <1000 |
| Chloroform | ug/Kg | <1000 |
| 111 Trichloroethane | ug/Kg | 4200000 |
| 1,1-Dichloropropene | ug/Kg | <1000 |
| Carbon Tetrachloride | ug/Kg | <1000 |
| Benzene | ug/Kg | <1000 |
| 1,2 Dichloroethane | ug/Kg | <1000 |
| Trichloroethylene | ug/Kg | <1000 |
| 1,2 Dichloropropane | ug/Kg | <1000 |
| Bromodichloromethane | ug/Kg | <1000 |
| Dibromomethane | ug/Kg | <1000 |
| Toluene | ug/Kg | 140000 |
| 112 Trichloroethane | ug/Kg | <1000 |
| Tetrachloroethene | ug/Kg | 34000 |
| 1,3-Dichloropropane | ug/Kg | <1000 |
| Chlorodibromomethane | ug/Kg | <1000 |
| 1,2 Dibromoethane | ug/Kg | <1000 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/Kg | <1000 |
| Chlorobenzene | ug/Kg | <1000 |
| Ethyl Benzene | ug/Kg | 4300 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn# 16102 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| m + p Xylene | ug/Kg | 31000 |
| o Xylene | ug/Kg | 8100 |
| Styrene | ug/Kg | <1000 |
| Bromoform | ug/Kg | <1000 |
| Isopropylbenzene | ug/Kg | <1000 |
| 1122Tetrachloroethan | ug/Kg | <1000 |
| Bromobenzene | ug/Kg | <1000 |
| 123-Trichloropropane | ug/Kg | <1000 |
| n-Propylbenzene | ug/Kg | <1000 |
| 2-Chlorotoluene | ug/Kg | <1000 |
| 135-Trimethylbenzene | ug/Kg | <1000 |
| 4-Chlorotoluene | ug/Kg | <1000 |
| tert-Butylbenzene | ug/Kg | <1000 |
| 124-Trimethylbenzene | ug/Kg | <1000 |
| sec-Butylbenzene | ug/Kg | <1000 |
| p-Isopropyltoluene | ug/Kg | <1000 |
| 1,2 Dichlorobenzene | ug/Kg | <1000 |
| 1,3 Dichlorobenzene | ug/Kg | <1000 |
| 1,4 Dichlorobenzene | ug/Kg | <1000 |
| DBCP | ug/Kg | <1000 |
| 124-Trichlorobenzene | ug/Kg | <1000 |
| Hexachlorobutadiene | ug/Kg | <1000 |
| Naphthalene | ug/Kg | <1000 |
| 123-Trichlorobenzene | ug/Kg | <1000 |
| c-1,3Dichloropropene | ug/Kg | <1000 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| t-1,3Dichloropropene | ug/Kg | <1000 |
| Acetone | ug/Kg | <10000 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16103 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <20000 | |
| #2 Fuel Oil | ug/Kg | 1300000* | |
| #4 Fuel Oil | ug/Kg | <20000 | |
| #6 Fuel Oil | ug/Kg | <20000 | |
| Lubricating Oil | ug/Kg | <20000 | |
| Mineral Spirits | ug/Kg | <20000 | |
| JP4 | ug/Kg | <20000 | |
| JP5 | ug/Kg | <20000 | |
| Jet A | ug/Kg | <20000 | |
| Kerosene | ug/Kg | <20000 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn= 16104 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/L | <0.1 | |
| Barium as Ba | mg/L | 2.2 | |
| Cadmium as Cd | mg/L | <0.1 | |
| Chromium as Cr | mg/L | 3.5 | |
| Lead as Pb | mg/L | 30 | |
| Mercury as Hg | mg/L | 0.0094 | |
| Selenium as Se | mg/L | 0.030 | |
| Silver as Ag | mg/L | <0.02 | |
| pH (lab) | units | 5.7 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn= 16105 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/L | <10 | |
| #2 Fuel Oil | ug/L | 710* | |
| #4 Fuel Oil | ug/L | <10 | |
| #6 Fuel Oil | ug/L | <10 | |
| Lubricating Oil | ug/L | <10 | |
| Mineral Spirits | ug/L | <10 | |
| JP4 | ug/L | <10 | |
| JP5 | ug/L | <10 | |
| Jet A | ug/L | <10 | |
| Kerosene | ug/L | <10 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn= 16108 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS | | |
|---|---|---|---|---|---|
| m + p Xylene | ug/L | <2 | t-1,3Dichloropropene | ug/L | <1 |
| o Xylene | ug/L | <1 | Acetone | ug/L | <10 |
| Styrene | ug/L | <1 | | | |
| Bromoform | ug/L | <1 | | | |
| Isopropylbenzene | ug/L | <1 | | | |
| 1122Tetrachloroethan | ug/L | <1 | | | |
| Bromobenzene | ug/L | <1 | | | |
| 123-Trichloropropane | ug/L | <1 | | | |
| n-Propylbenzene | ug/L | <1 | | | |
| 2-Chlorotoluene | ug/L | <1 | | | |
| 135-Trimethylbenzene | ug/L | <1 | | | |
| 4-Chlorotoluene | ug/L | <1 | | | |
| tert-Butylbenzene | ug/L | <1 | | | |
| 124-Trimethylbenzene | ug/L | <1 | | | |
| sec-Butylbenzene | ug/L | <1 | | | |
| p-Isopropyltoluene | ug/L | <1 | | | |
| 1,2 Dichlorobenzene | ug/L | <1 | | | |
| 1,3 Dichlorobenzene | ug/L | <1 | | | |
| 1,4 Dichlorobenzene | ug/L | <1 | | | |
| DBCP | ug/L | <1 | | | |
| 124-Trichlorobenzene | ug/L | <1 | | | |
| Hexachlorobutadiene | ug/L | <1 | | | |
| Naphthalene | ug/L | <1 | | | |
| 123-Trichlorobenzene | ug/L | <1 | | | |
| c-1,3Dichloropropene | ug/L | <1 | | | |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16107 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/L | <1 |
| Trichlorofluomethane | ug/L | <1 |
| 1,1 Dichloroethene | ug/L | <1 |
| Methylene Chloride | ug/L | <1 |
| t-1,2-Dichloroethene | ug/L | <1 |
| 1,1 Dichloroethane | ug/L | 5 |
| 2,2-Dichloropropane | ug/L | <1 |
| c-1,2-Dichloroethene | ug/L | <1 |
| Bromochloromethane | ug/L | <1 |
| Chloroform | ug/L | <1 |
| 111 Trichloroethane | ug/L | 11 |
| 1,1-Dichloropropene | ug/L | <1 |
| Carbon Tetrachloride | ug/L | <1 |
| Benzene | ug/L | <1 |
| 1,2 Dichloroethane | ug/L | <1 |
| Trichloroethylene | ug/L | <1 |
| 1,2 Dichloropropane | ug/L | <1 |
| Bromodichloromethane | ug/L | <1 |
| Dibromomethane | ug/L | <1 |
| Toluene | ug/L | <1 |
| 112 Trichloroethane | ug/L | <1 |
| Tetrachloroethene | ug/L | <1 |
| 1,3-Dichloropropane | ug/L | <1 |
| Chlorodibromomethane | ug/L | <1 |
| 1,2 Dibromoethane | ug/L | <1 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/L | <1 |
| Chlorobenzene | ug/L | <1 |
| Ethyl Benzene | ug/L | <1 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn# 16106 NYSDOH ID# 10320

assau County Department of Health
ASSAU COUNTY PUBLIC HEALTH ORDINANCE - ARTICLE XI
PPLICATION FOR A TOXIC OR HAZARDOUS MATERIALS
STORAGE FACILITY PERMIT

ORM I-GENERAL INFORMATION (SEE INSTRUCTION SHEET)

If applicable, check the following:
☐ Municipality
☐ Public School
☐ Other tax-supported institutions

If tax exempt facility, enter N.Y. State Exempt Organization Certificate No. and enclose a copy:

For Office Use Only
Facility I.D. 1536
Date Rec'd 7/23/98
Fee Exempt Fac. ☐ Yes ☒ No
Permit Months:

Check all that apply to your facility: ☒ Tank Storage ☒ Container Storage ☐ Bulk Storage ☐ Storage of Road De-icing Materials

Reason for submitting application: ☒ New ☐ Renewal ☒ Change ☐ Construction

| Facility Name | Street Address | Post Office | State | Zip | Phone |
|---|---|---|---|---|---|
| ulzer Metco (US) Inc. | 1101 Prospect Avenue | Westbury | NY | 11590 | 516 334-1300 |

| Facility Mailing Address (If different from above) | Facility Contact Person (Name & Title) | Phone |
|---|---|---|
| | Michael S. Lydon<br>Environment, Health & Safety | 516 338-2337 |

| Facility Owner | Street Address | Post Office | State | Zip | Phone |
|---|---|---|---|---|---|
| ulzer Metco (US) Inc. | 1101 Prospect Avenue | Westbury | NY | 11590 | 516 334-1300 |
| Property Owner (If not Facility Owner) | Street Address | Post Office | State | Zip | Phone |
| | | | | | |
| Tank Owner (If not Facility Owner) | Street Address | Post Office | State | Zip | Phone |
| | | | | | |

Name that should appear on Permit (Permittee) (If different from Facility Owner) Sulzer Metco (US) Inc.

| Permittee's Street Address | Post Office | State | Zip | Phone |
|---|---|---|---|---|
| 101 Prospect Avenue | Westbury | NY | 11590 | 516 334-1300 |

Permittee's Relationship to Facility Owner: ☒ Same ☐ Operator of Facility ☐ Other (Specify):

| Principal Property Tax Code: | School District No. | Section | Block | Lot |
|---|---|---|---|---|
| | 1 | 11 | 329 | 369 |

Forms Attached (Check all that apply) ☒ Form 2 - Tank Registration ☐ Form 3 - Bulk & Container Storage Registration ☐ Form 4 - Storage of Road De-icing Materials

I hereby affirm under penalty of perjury that the information provided on this form and on any attached forms, statements and exhibits is true and correct to the best of my knowledge and belief.

| Print Name | Signature | Title | Date |
|---|---|---|---|
| Michael S. Lydon | Michael S. Lydon | Environment, Health & Safety | 07-22-98 |

EH 857 4/87

NASSAU COUNTY DEPARTMENT OF HEALTH
APPLICATION FOR A TOXIC OR HAZARDOUS MATERIALS STORAGE FACILITY PERMIT
FORM 2 - TANK REGISTRATION
SEE INSTRUCTION SHEETS

| For Office Use Only | |
|---|---|
| Date Application Received 7/23/98 | Facility I.D. 1536 |
| Reviewed By MS | Date Reviewed 7/23/98 |
| Action: ☐ Not Req'd. ☐ Approved ☐ Disapproved | No. of Months |

Facility Name Sulzer Metco (US) Inc.

Facility Address 1101 Prospect Avenue, Westbury, NY 11590

| Action | Tank Number | Location | Design Capacity (Gallons) | Material of Construction | Internal Protection | External Protection | Piping | Type | Material Currently or Last Stored: NCDH Number | Material Currently or Last Stored: Name | Status | Tank Installation Date (Month/yr) | Leak Detection | Secondary Containment | Product Gauge | Dispenser Method | Fill | Additional Information for Abandoned Tanks: Date Last Used (Month/yr) | Additional Information for Abandoned Tanks: Condition |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 1 | 4 | 5500 | 3 | 2 | 4 | 1 | 2 | | LAT Settling Tank | 3 | 1955 | 5 | 5 | 2 | 3 | 2 | 1967 | 2 |

EH 858 4/86
DH-2513 11/86

Date Submitted 07-23-98

Page 1 of 1

☐ D.P.

P2SUL002567

Nassau County Department of Health
NASSAU COUNTY PUBLIC HEALTH ORDINANCE - ARTICLE XI
APPLICATION FOR A TOXIC OR HAZARDOUS MATERIALS STORAGE FACILITY PERMIT

FORM I-GENERAL INFORMATION (SEE INSTRUCTION SHEET)

If applicable, check the following:
☐ Municipality
☐ Public School
☐ Other tax-supported institutions

If tax exempt facility, enter N.Y. State Exempt Organization Certificate No. and enclose a copy:

For Office Use Only-

| Facility I.D. | Date Rec'd. |
|---|---|
| Fee Exempt Fac. ☐ Yes ☐ No | Permit Months: |

Check all that apply to your facility: ☒ Tank Storage ☒ Container Storage ☐ Bulk Storage ☐ Storage of Road De-icing Materials

Reason for submitting application: ☒ New ☐ Renewal ☐ Change ☐ Construction

| Facility Name | Street Address | Post Office | State | Zip | Phone |
|---|---|---|---|---|---|
| Sulzer Metco (US) Inc. | 1101 Prospect Avenue | Westbury | NY | 11590 | 516 334-1300 |

| Facility Mailing Address (If different from above) | Facility Contact Person (Name & Title) | Phone |
|---|---|---|
| | Michael S. Lydon<br>Environment, Health & Safety | 516 338-2337 |

| Facility Owner | Street Address | Post Office | State | Zip | Phone |
|---|---|---|---|---|---|
| Sulzer Metco (US) Inc. | 1101 Prospect Avenue | Westbury | NY | 11590 | 516 334-1300 |
| Property Owner (If not Facility Owner) | Street Address | Post Office | State | Zip | Phone |
| | | | | | |
| Tank Owner (If not Facility Owner) | Street Address | Post Office | State | Zip | Phone |
| | | | | | |

Name that should appear on Permit (Permittee) (If different from Facility Owner) Sulzer Metco (US) Inc.

| Permittee's Street Address | Post Office | State | Zip | Phone |
|---|---|---|---|---|
| 1101 Prospect Avenue | Westbury | NY | 11590 | 516 334-1300 |

Permittee's Relationship to Facility Owner: ☒ Same ☐ Operator of Facility ☐ Other (Specify):

| Principal Property Tax Code: | School District No. | Section | Block | Lot |
|---|---|---|---|---|
| | 1 | 11 | 329 | 369 |

Forms Attached (Check all that apply) ☒ Form 2 - Tank Registration ☐ Form 3 - Bulk & Container Storage Registration ☐ Form 4 - Storage of Road De-icing Materials

I hereby affirm under penalty of perjury that the information provided on this form and on any attached forms, statements and exhibits is true and correct to the best of my knowledge and belief.

| Print Name | Signature | Title | Date |
|---|---|---|---|
| Michael S. Lydon | Michael S. Lydon | Environment, Health & Safety | 07-22-88 |

EH 857 4/87

☐ n p

NASSAU COUNTY DEPARTMENT OF HEALTH
APPLICATION FOR A TOXIC OR HAZARDOUS MATERIALS STORAGE FACILITY PERMIT
FORM 2 - TANK REGISTRATION
SEE INSTRUCTION SHEETS

| For Office Use Only | |
|---|---|
| Date Application Received | Facility I.D. |
| Reviewed By | Date Reviewed |
| Action: ☐ Not Req'd. ☐ Approved ☐ Disapproved | No.of Months |

**Facility Name** Sulzer Metco (US) Inc.

**Facility Address** 1101 Prospect Avenue, Westbury, NY 11590

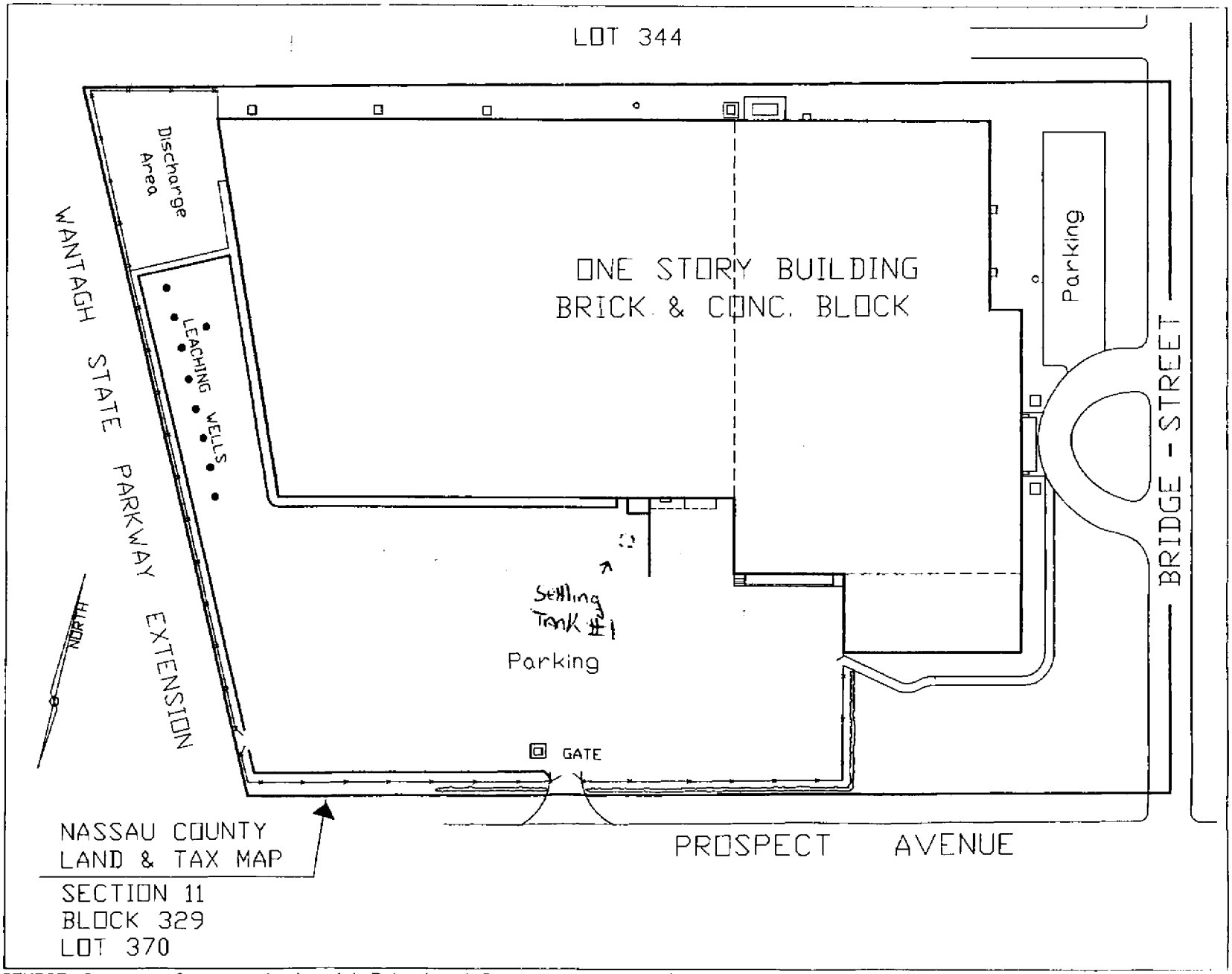
| Action | Tank Number | Location | Design Capacity (Gallons) | Material of Construction | Internal Protection | External Protection | Piping | Material Currently or Last Stored: Type | Material Currently or Last Stored: NCDH Number | Material Currently or Last Stored: Name | Status | Tank Installation Date (Month/yr) | Leak Detection | Secondary Containment | Product Gauge | Dispenser Method | Fill | Additional Information for Abandoned Tanks: Date Last Used (Month/yr) | Additional Information for Abandoned Tanks: Condition |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 1 | 4 | 5500 | 3 | 2 | 4 | 1 | 2 | | Settling Tank | 3 | 1955 | 5 | 5 | 2 | 3 | 2 | 1967 | 2 |

EH 858 4/86
DH-2513 11/86

Date Submitted 07-23-98

Page 1 of 1

☐ D.P.




SOURCE: Survey of property by J.J. Bohn Land Surveyors, dated 9/8/71.

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia. NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | <1 | |
| Barium as Ba | mg/Kg | 480 | |
| Cadmium as Cd | mg/Kg | 26 | |
| Chromium as Cr | mg/Kg | 2200 | |
| Lead as Pb | mg/Kg | 680 | |
| Mercury as Hg | mg/Kg | 2.5 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | 1.5 | |
| % Solids | | 56 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn= 16101 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/Kg | 3700 |
| Trichlorofluomethane | ug/Kg | <1000 |
| 1,1 Dichloroethene | ug/Kg | 66000 |
| Methylene Chloride | ug/Kg | <1000 |
| t-1,2-Dichloroethene | ug/Kg | <1000 |
| 1,1 Dichloroethane | ug/Kg | 860000 |
| 2,2-Dichloropropane | ug/Kg | <1000 |
| c-1,2-Dichloroethene | ug/Kg | <1000 |
| Bromochloromethane | ug/Kg | <1000 |
| Chloroform | ug/Kg | <1000 |
| 111 Trichloroethane | ug/Kg | 4200000 |
| 1,1-Dichloropropene | ug/Kg | <1000 |
| Carbon Tetrachloride | ug/Kg | <1000 |
| Benzene | ug/Kg | <1000 |
| 1,2 Dichloroethane | ug/Kg | <1000 |
| Trichloroethylene | ug/Kg | <1000 |
| 1,2 Dichloropropane | ug/Kg | <1000 |
| Bromodichloromethane | ug/Kg | <1000 |
| Dibromomethane | ug/Kg | <1000 |
| Toluene | ug/Kg | 140000 |
| 112 Trichloroethane | ug/Kg | <1000 |
| Tetrachloroethene | ug/Kg | 34000 |
| 1,3-Dichloropropane | ug/Kg | <1000 |
| Chlorodibromomethane | ug/Kg | <1000 |
| 1,2 Dibromoethane | ug/Kg | <1000 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/Kg | <1000 |
| Chlorobenzene | ug/Kg | <1000 |
| Ethyl Benzene | ug/Kg | 4300 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn* 16102 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue. Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro. SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| m + p Xylene | ug/Kg | 31000 |
| o Xylene | ug/Kg | 8100 |
| Styrene | ug/Kg | <1000 |
| Bromoform | ug/Kg | <1000 |
| Isopropylbenzene | ug/Kg | <1000 |
| 1122Tetrachloroethan | ug/Kg | <1000 |
| Bromobenzene | ug/Kg | <1000 |
| 123-Trichloropropane | ug/Kg | <1000 |
| n-Propylbenzene | ug/Kg | <1000 |
| 2-Chlorotoluene | ug/Kg | <1000 |
| 135-Trimethylbenzene | ug/Kg | <1000 |
| 4-Chlorotoluene | ug/Kg | <1000 |
| tert-Butylbenzene | ug/Kg | <1000 |
| 124-Trimethylbenzene | ug/Kg | <1000 |
| sec-Butylbenzene | ug/Kg | <1000 |
| p-Isopropyltoluene | ug/Kg | <1000 |
| 1,2 Dichlorobenzene | ug/Kg | <1000 |
| 1,3 Dichlorobenzene | ug/Kg | <1000 |
| 1,4 Dichlorobenzene | ug/Kg | <1000 |
| DBCP | ug/Kg | <1000 |
| 124-Trichlorobenzene | ug/Kg | <1000 |
| Hexachlorobutadiene | ug/Kg | <1000 |
| Naphthalene | ug/Kg | <1000 |
| 123-Trichlorobenzene | ug/Kg | <1000 |
| c-1,3Dichloropropene | ug/Kg | <1000 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| t-1,3Dichloropropene | ug/Kg | <1000 |
| Acetone | ug/Kg | <10000 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16103 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <20000 | |
| #2 Fuel Oil | ug/Kg | 1300000* | |
| #4 Fuel Oil | ug/Kg | <20000 | |
| #6 Fuel Oil | ug/Kg | <20000 | |
| Lubricating Oil | ug/Kg | <20000 | |
| Mineral Spirits | ug/Kg | <20000 | |
| JP4 | ug/Kg | <20000 | |
| JP5 | ug/Kg | <20000 | |
| Jet A | ug/Kg | <20000 | |
| Kerosene | ug/Kg | <20000 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn= 16104 NYSDOH ID# 10320

ULZER METCO (US) INC. **REMITTANCE ADVICE**

| P.O. NUMBER | VENDOR'S INVOICE | GROSS AMOUNT | DISCOUNT | NET AMOUNT | VOUCHER NO. |
|---|---|---|---|---|---|
| Tank Registration | | | | | |

ATTACHED CHECK IS TENDERED IN FULL PAYMENT AS NOTED ABOVE

RM-0-183900 41692

DETACH BEFORE DEPOSITING CHECK

**SULZER METCO**

SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, N.Y. 11590-0201

62-26/311 4967-09

No. 41692

PAY TO THE ORDER OF
Nassau County Health Department
240 old Country Road
Mineola, New York 11501

DATE
7/23/98

AMOUNT
$ 50.00

VOID AFTER 90 DAYS
SULZER METCO (US) INC.

Chase Manhattan Delaware
1201 Market St.
Wilmington, De 19801

⑈00041692⑈ ⑆031100267⑆ 6301449678 509⑈

**SULZER METCO**

# Telefax

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone:(516) 334-1300
Fax: (516) 338-2477

Place, date: Westbury, July 28, 1998

To: Bruce Mackay

Fax: 5711475

From: Michael S. Lydon
Fax: (516) 338-2336
Phone: (516) 338-2337

Total pages: 5

Copy to:

**Re: Disposal Sample Results**

Mr. Mackay:

Attached please find the endpoint sample lab results we spoke about.

Thank you.

Sincerely,

Michael S. Lydon
Environment, Health & Safety

FILE: 0728982.DOC

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982932.01 07/27/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2619
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample.Settling Tank End Point.1400

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS | | |
|---|---|---|---|---|---|
| Dichlordifluomethane | ug/Kg | <5 | t-1,3Dichloropropene | ug/Kg | <5 |
| Chloromethane | ug/Kg | <5 | 112 Trichloroethane | ug/Kg | <5 |
| Vinyl Chloride | ug/Kg | <5 | Tetrachloroethene | ug/Kg | <5 |
| Bromomethane | ug/Kg | <5 | 1,3-Dichloropropane | ug/Kg | <5 |
| Chloroethane | ug/Kg | <5 | Chlorodibromomethane | ug/Kg | <5 |
| Trichlorofluomethane | ug/Kg | <5 | 1,2 Dibromoethane | ug/Kg | <5 |
| 1,1 Dichloroethene | ug/Kg | <5 | Chlorobenzene | ug/Kg | <5 |
| Methylene Chloride | ug/Kg | <5 | Ethyl Benzene | ug/Kg | <5 |
| t-1,2-Dichloroethene | ug/Kg | <5 | 1112Tetrachloroethan | ug/Kg | <5 |
| 1,1 Dichloroethane | ug/Kg | <5 | m + p Xylene | ug/Kg | <10 |
| 2,2-Dichloropropane | ug/Kg | <5 | o Xylene | ug/Kg | <5 |
| c-1,2-Dichloroethene | ug/Kg | <5 | Styrene | ug/Kg | <5 |
| Bromochloromethane | ug/Kg | <5 | Bromoform | ug/Kg | <5 |
| Chloroform | ug/Kg | <5 | Isopropylbenzene | ug/Kg | <5 |
| 111 Trichloroethane | ug/Kg | <5 | Bromobenzene | ug/Kg | <5 |
| Carbon Tetrachloride | ug/Kg | <5 | 1122Tetrachloroethan | ug/Kg | <5 |
| 1,1-Dichloropropene | ug/Kg | <5 | 123-Trichloropropane | ug/Kg | <5 |
| Benzene | ug/Kg | <5 | n-Propylbenzene | ug/Kg | <5 |
| 1,2 Dichloroethane | ug/Kg | <5 | 2-Chlorotoluene | ug/Kg | <5 |
| Trichloroethylene | ug/Kg | <5 | 135-Trimethylbenzene | ug/Kg | <5 |
| 1,2 Dichloropropane | ug/Kg | <5 | 4-Chlorotoluene | ug/Kg | <5 |
| Dibromomethane | ug/Kg | <5 | tert-Butylbenzene | ug/Kg | <5 |
| Bromodichloromethane | ug/Kg | <5 | 124-Trimethylbenzene | ug/Kg | <5 |
| c-1,3Dichloropropene | ug/Kg | <5 | sec-Butylbenzene | ug/Kg | <5 |
| Toluene | ug/Kg | <5 | | | |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Analysis was performed by GC/MS. EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982632.01 07/27/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample,Settling Tank End Point,1400

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| p-Isopropyltoluene | ug/Kg | <5 | |
| 1,3 Dichlorobenzene | ug/Kg | <5 | |
| 1,4 Dichlorobenzene | ug/Kg | <5 | |
| n-Butylbenzene | ug/Kg | <5 | |
| 1,2 Dichlorobenzene | ug/Kg | <5 | |
| Dibromochloropropane | ug/Kg | <5 | |
| 124-Trichlorobenzene | ug/Kg | <5 | |
| Hexachlorobutadiene | ug/Kg | <5 | |
| Naphthalene | ug/Kg | <5 | |
| 123-Trichlorobenzene | ug/Kg | <5 | |
| ter.ButylMethylEther | ug/Kg | <5 | |
| p-Ethyltoluene | ug/Kg | <5 | |
| Freon 113 | ug/Kg | <5 | |
| 1245 Tetramethylbenz | ug/Kg! | <5 | |
| Acetone | ug/Kg | <50 | |
| Methyl Ethyl Ketone | ug/Kg | <50 | |
| Methylisobutylketone | ug/Kg | <50 | |
| Chlorodifluoromethan | ug/Kg | <5 | |
| p Diethylbenzene | ug/Kg | <5 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 2 of 2.

DIRECTOR PRELIMINARY

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982932.01 07/27/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample.Settling Tank End Point.1400

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <200 | |
| #2 Fuel Oil | ug/Kg | <200 | |
| #4 Fuel Oil | ug/Kg | <200 | |
| #6 Fuel Oil | ug/Kg | <200 | |
| Lubricating Oil | ug/Kg | <200 | |
| Mineral Spirits | ug/Kg | <200 | |
| JP4 | ug/Kg | <200 | |
| JP5 | ug/Kg | <200 | |
| Jet A | ug/Kg | <200 | |
| Kerosene | ug/Kg | <200 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Diesel Range Organics.
Analyses performed by Modified 8015 Method.

DIRECTOR PRELIMINARY

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982932.01 07/27/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample,Settling Tank End Point,1400

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | 0.42 | |
| Barium as Ba | mg/Kg | 4.7 | |
| Cadmium as Cd | mg/Kg | 1.9 | |
| Chromium as Cr | mg/Kg | 1.7 | |
| Lead as Pb | mg/Kg | 1.0 | |
| Mercury as Hg | mg/Kg | 0.0070 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | <0.05 | |
| % Solids | | 98 | |

cc:Micheel Lydon (Sulzer Metco)

REMARKS:

DIRECTOR PRELIMINARY

State of New Jersey
Department of Environmental Protection
Hazardous Waste Regulation Program
Manifest Section
CN 421, Trenton, NJ 08625-0421

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-97

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NYD131318551 — Manifest Document No.: 53049
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Sulzer Metco, 1101 Prospect Avenue, Westbury, NY 11590
4. Generator's Phone (516) 338-2337

A. State Manifest Document Number: NJA 2953049
B. State Generator's ID-(Gen. Site Address): Same
C. State Trans. ID-NJDEP: [illegible]
Decal No.: [illegible]
D. Transporter's Phone (516) 755-4000
E. State Trans. ID-NJDEP: [illegible]
Decal No.: [illegible]
F. Transporter's Phone (732) 462-1001
G. State Facility's ID
H. Facility's Phone (609) 540-2773

5. Transporter 1 Company Name: Trade Winds Environmental, Inc.
6. US EPA ID Number: NY0000936385
7. Transporter 2 Company Name: FREEHOLD CARTAGE INC.
8. US EPA ID Number: NJ0054126164
9. Designated Facility Name and Site Address: E.I. du Pont de Nemours & Co., Inc., Chambers Works - Route 130, Deepwater, NJ 08023
10. US EPA ID Number: NJD002385730

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group) | HM | | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | X | RQ, Hazardous Waste Liquids, N.O.S., (Lead)(D002) 9, NA3082, PG III EPG# 171 | XX1 | TT | 01785 | G | D008 |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above
a. Lead
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a.
b.
c.
d.

15. Special Handling Instructions and Additional Information: Emergency Contact: Trade Winds 516-755-4000
OM#052
Release# 032
NY-JA-113 Lic Plate # T491SM-NJ

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: David Smith — Signature: [illegible] — Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: David Smith — Signature: David Smith — Month Day Year: 07 23 98

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Month Day Year

GENERATOR / TRANSPORTER / FACILITY

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection and Energy. (609) 292-7172

NJA 2953049

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION MUST BE LEGIBLE ON ALL COPIES

8—GENERATOR COPY

P2SU002518

WASTE MANAGEMENT DIVISION
MICHIGAN DEPARTMENT OF
ENVIRONMENTAL QUALITY

DO NOT WRITE IN THIS SPACE
ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Part 111 and Part 121 of Act 451, 1994, as amended.

Failure to file may subject you to criminal and/or civil penalties under Sections 324.11151 or 324.12116 MCL.

Please print or type.

Form Approved. OMB No. 2050-0039

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NYD131318651
Manifest Document No.: 18245
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Sulzer Metco, 1101 Prospect Avenue, Westbury, NY 11590
4. Generator's Phone ( 516 ) 338-2337

A. State Manifest Document Number: MI 7018245
B. State Generator's ID: Same

5. Transporter 1 Company Name: Bechem Transport, Inc.
6. US EPA ID Number: CTD982191942
C. State Transporter's ID: 31124MA
D. Transporter's Phone: 203-562-1280

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address: City Environmental, Inc., 1923 Frederick Street, Detroit, MI 48211
10. US EPA ID Number: MID980991566
G. State Facility's ID:
H. Facility's Phone: 313-923-0080

| | 11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM | | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | X | RQ, Hazardous Waste ~~Liquids~~ SOLIDS, N.O.S., (Lead)(D008) 9, NA3082, PG III ERG# 171 | XX4 | D M | 2400 | P | D008 |
| b. | X | RQ, Hazardous Waste Liquids, N.O.S., (1,1,1 Trichloroethane, Lead)(F001,F002,D008,D007) 9, NA3082, PG III ERG# 171 | X27 | D M | 16200 | P | F001, F002 D007, D008 |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above
11a)
11b)

K. Handling Codes

15. Special Handling Instructions and Additional Information
Emergency Contact: Trade Winds 516-755-4000

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Michael S. Lydon
Signature: [signature]
Date: Month Day Year: 07 30 98

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: James Coleman
Signature: [signature]
Date: Month Day Year: 07 30 98

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Date: Month Day Year:

GENERATOR

TRANSPORTER

FACILITY

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88)

To be mailed by Generator to: WASTE MANAGEMENT DIVISION MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY PO BOX 30038

EQP 5110 Rev. 10/96

# PRIVATE
# NON-HAZARDOUS
# DOCUMENT OF CARGO

10314

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 12-20-

#1 Truck License Number [illegible]

#2 MEG ID # _____

#2 Truck License Number _____

## IDENTIFICATION

Company name, mailing address and telephone number

Generator: Sulzer Metco
1101 Prospect Ave. - PO Box 1006
Westbury, NY 11590

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Chemical Pollution Control
120 South Fourth Street
Bayshore, NY 11706

## WASTE INFORMATION

| NON-HAZARDOUS WASTE SHIPPING DESCRIPTION | Containers No. | Containers Type | Total Quantity Gals./Lbs./Yds./Bgs. | NYSDEC Code | TSDF Code |
|---|---|---|---|---|---|
| Oil Spill Debris Solid | 1 | cm | 25 / yds | N011 | |
| | | | | | |

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

X [signature] — Generator's Signature — Date: 7-30-98

[signature] — Transporter's Signature #1 — Date: 7-30-98

Transporter's Signature #2 — Date

TSDF Signature — Date

**MILLER ENVIRONMENTAL GROUP INC.**

P.O. # _____

DATE 3[illegible] July 98 [illegible]

DAILY JOB REPORT

CUSTOMER SULZER MEXICO

Phone MIKE LYDON 33[illegible] - 13[illegible]

BILLING ADDRESS [illegible]

LOCATION OF WORK [illegible]

JOB DESCRIPTION [illegible] WASTE FOR DISPOSAL

| MATERIALS | | SUBCONTRACTORS | |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

EQUIPMENT

[illegible] # [illegible]

WORKER PROTECTION LEVEL – D

| PERSONNEL | TOTAL HOURS | PERSONNEL | TOTAL HOURS |
|---|---|---|---|
| [illegible] | | | |
| | | | |
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| | | | |

DAILY OPERATIONS 0630 SECURED _____ SUBSISTENCE _____

DISPOSAL 35 YDS [illegible] OF BRIS [illegible] CPC/PSC

[illegible]

BILL GRP. # _____

APPROVED X [signature]

CUSTOMER REPRESENTATIVE

33613

MILLER ENVIRONMENTAL GROUP INC.

538 Edwards Ave. - PO Box 610,
Calverton, NY 11933
Phone (516)369-4900 Fax (516)369-4909

# Fax

**To:** MIKE LYDON **Date:** 7/30/98

**Company:** SULZER + METCO **Pages:** 1

**Fax:** 338-2336 **From:** BILL FISHER

**Re:** ROLL-OFF RENTAL + DISPOSAL

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:**

| | |
|---|---|
| ROLL OFF DROP | $450 |
| ROLL-OFF LINER | $85 |
| DAILY RENTAL 7/23 - 7/30/98 | NO CHARGE |
| TRANSPORT + DISPOSE 35 yds x $235/yd | $8225 |
| TOTAL | $8760 |

APPLICABLE SALES TAX ADDITIONAL

# Notification and Certification Form

DuPont Environmental Treatment

OW/DW No. 4052
Release No. _____
(please fill in)

## Chambers Works Wastewater Treatment Facility
## Land Disposal Restrictions

1. Generator's EPA ID No. NJD 131318651 Hazardous Waste Manifest No. NJA 2953049
Generator Switzer METCO
Generator's Address 1101 Prospect AVE Manifest Page No./Line Letter 11A
Westbury, CT 11590 (for drummed aqueous waste only)

Note: The DuPont Chambers Works Wastewater Treatment Plant (WWTP) is regulated under the Clean Water Act.

2. Is this waste subject to the Land Disposal Restrictions set forth in 40 CFR 268? ☒ Yes ☐ No
If no, check reason: ☐ Nonhazardous ☐ Newly identified or newly listed (write waste codes in Table B on page 2)

3. In Table A, check (if applicable) the characteristic U.S. EPA hazardous waste codes that apply to this waste. For each waste code checked, identify whether the waste is a wastewater or nonwastewater, and indicate how the waste must be managed based on the options found on page 2.

TABLE A

| Check Waste Code | U.S. EPA Hazardous Waste Code | Subcategory | Wastewater (Check only one) | Nonwastewater | How must the waste be managed? (Enter the letter from page 2) |
|---|---|---|---|---|---|
| ___ | D001 | Low TOC (<10% TOC) | ___ | ___ | ___ |
| ___ | D001 | High TOC (≥ 10% TOC) | NA | ___ | ___ |
| ___ | D001 | Oxidizer | ___ | ___ | ___ |
| ___ | D002 | Acid (pH ≤ 2) | ___ | ___ | ___ |
| ___ | D002 | Alkaline (pH ≥ 12.5) | ___ | ___ | ___ |
| ___ | D002 | Other corrosives | ___ | ___ | ___ |
| ___ | D003 | Reactive sulfides | ___ | ___ | ___ |
| ___ | D003 | Reactive cyanides | ___ | ___ | ___ |
| ___ | D003 | Water reactive | ___ | ___ | ___ |
| ___ | D003 | Explosives (pretreated) | ___ | ___ | ___ |
| ___ | D003 | Other reactives | ___ | ___ | ___ |
| ___ | D004 | Arsenic | ___ | ___ | ___ |
| ___ | D005 | Barium | ___ | ___ | ___ |
| ___ | D006 | Cadmium | ___ | ___ | ___ |
| ___ | D007 | Chromium | ___ | ___ | ___ |
| ✓ | D008 | Lead | ___ | ✓ | A |
| ___ | D009 | Mercury | ___ | NA | ___ |
| ___ | D009 | Low Mercury <260 mg/kg Hg | NA | ___ | ___ |
| ___ | D010 | Selenium | ___ | ___ | ___ |
| ___ | D011 | Silver | ___ | ___ | ___ |

## Chambers Works Wastewater Treatment Facility
## Land Disposal Restrictions
## (cont.)

4. In Table B, identify all additional characteristic, listed, newly identified, and newly listed U.S. EPA hazardous waste codes that apply to this waste. For each waste code, identify the subcategory, indicate whether the waste is a wastewater or nonwastewater, and indicate how the waste must be managed, based on the options below.

TABLE B

| U.S. EPA HAZARDOUS WASTE CODE(S) Per 40 CFR 261 | SUBCATEGORY | | Waste-water | Non-waste-water | HOW MUST THE WASTE BE MANAGED? |
|---|---|---|---|---|---|
| | | | (Check only one) | | |
| | Description | None | | | Enter the letter from options below* |
| D008 | | ✓ | | ✓ | A |
| | | | | | |
| | | | | | |
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| | | | | | |

*(Use Attachment I if more room is needed to list all applicable waste codes)*

5. Is waste analysis information attached? ☐ Yes ☐ Not available

6. If this waste is subject to the California List Restrictions [40 CFR 268.32; RCRA Section 3004(d)], check which of the following apply:

☐ Nickel ≥ 134 mg/l ☐ Thallium ≥ 130 mg/l ☐ HOCs** ≥ 1000 mg/l ☐ Cyanides ≥ 1000 mg/l

**Halogenated Organic Compounds [40 CFR 268 Appendix III]

7. If this waste is a spent solvent (F001-F005), include Attachment II, Treatment Standards for F001-F005 Spent Solvents.

8. If this waste is a multisource leachate (F039), include Attachment III, Treatment Standards for F039 Multisource Leachate Wastes.

***HOW MUST THE WASTE BE MANAGED?** (Choose from the following options to complete Tables A and B.)

A. Restricted waste requires treatment.

B. Restricted waste meets applicable treatment standards.

GENERATOR'S CERTIFICATION [40 CFR 268.7(a)(2)(ii)]
I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d). I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

C. Waste is newly listed or newly identified. (Note: This includes D018-D043 treated at the WWTP.)

D. Restricted waste is exempt from the Land Disposal Restrictions. Check the reason below and write in the date the waste is subject to prohibitions.

☐ The waste has been granted a Site-Specific Variance. _____
☐ The waste has been given a Case-by-Case Extension. _____
☐ The waste is subject to a National Capacity Variance. _____

E. Restricted waste has been treated to remove the hazardous characteristic D001, D002, and/or D012-D043 and requires treatment of underlying hazardous constituents.

CHARACTERISTIC WASTE - UNDERLYING HAZARDOUS CONSTITUENTS [40 CFR 268.7(b)(5)(iv)]
I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

CERTIFICATION

I certify that, to the best of my knowledge, the information provided in this document is true, accurate, and complete.

Authorized Signature _____ Title _____ Date _____



DUPONT

Attachment I

DuPont Environmental Treatment

Identify all additional characteristic, listed, newly identified, and newly listed U.S. EPA hazardous waste codes that apply. For each waste code, identify the subcategory, indicate whether the waste is a wastewater or nonwastewater, and indicate how the waste must be managed, based on the options found on page 2.

(continued from Table B)

| U.S. EPA HAZARDOUS WASTE CODE(S) Per 40 CFR 261 | SUBCATEGORY | | Waste-water | Non-waste-water | HOW MUST THE WASTE BE MANAGED? |
|---|---|---|---|---|---|
| | | | (Check only one) | | Enter the letter from page 2* |
| | Description | None | | | |
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**Attachment II**

DuPont Environmental Treatment

## Treatment Standards for F001-F005 Spent Solvents

Instructions: Mark the box beside the appropriate code(s) included in the shipment. Mark the individual constituents present in the waste.*

*Optional for wastes treated at the DuPont Chambers Works Wastewater Treatment Plant (WWTP). The WWTP monitors all F001-F005 regulated constituents in its treatment residues.

| | Hazardous Waste Description | Constituents of Concern | Wastewater Total Composition (mg/l) | Nonwastewater Total Composition (mg/kg) |
|---|---|---|---|---|
| ☐ | F001-F005 Solvent Wastes (Contains any combination of one or more of these spent solvents) | __ Acetone | 0.28 | 160 |
| | | __ Benzene | 0.14 | 10 |
| | | __ n-Butyl alcohol | 5.6 | 2.6 |
| | | __ Carbon disulfide | 3.8 | 4.8 mg/l [TCLP] |
| | | __ Carbon tetrachloride | 0.057 | 6.0 |
| | | __ Chlorobenzene | 0.057 | 6.0 |
| | | __ o-Cresol | 0.11 | 5.6 |
| | | __ m-Cresol | 0.77 | 5.6 |
| | | __ p-Cresol | 0.77 | 5.6 |
| | | __ Cresols-mixed isomers (Cresylic acid) | 0.88 | 11.2 |
| | | __ Cyclohexanone | 0.36 | 0.75 mg/l [TCLP] |
| | | __ o-Dichlorobenzene | 0.088 | 6.0 |
| | | __ Ethyl acetate | 0.34 | 33 |
| | | __ Ethyl benzene | 0.057 | 10 |
| | | __ Ethyl ether | 0.12 | 160 |
| | | __ Isobutanol | 5.6 | 170 |
| | | __ Methanol | 5.6 | 0.75 mg/l [TCLP] |
| | | __ Methylene chloride | 0.089 | 30 |
| | | __ Methyl ethyl ketone | 0.28 | 36 |
| | | __ Methyl isobutyl ketone | 0.14 | 33 |
| | | __ Nitrobenzene | 0.068 | 14 |
| | | __ Pyridine | 0.014 | 16 |
| | | __ Tetrachloroethylene | 0.056 | 6.0 |
| | | __ Toluene | 0.080 | 10 |
| | | __ 1,1,1-Trichloroethane | 0.054 | 6.0 |
| | | __ 1,1,2-Trichloroethane | 0.054 | 6.0 |
| | | __ 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.057 | 30 |
| | | __ Trichloroethylene | 0.054 | 6.0 |
| | | __ Trichloromonofluoromethane | 0.020 | 30 |
| | | __ Xylenes-mixed isomers | 0.32 | 30 |
| ☐ | F005 Solvent Wastes (Contains only one of these as sole F001-F005 solvent) | __ 2-Nitropropane | (WETOX or CHOXD)[fb] CARBN; or INCIN | INCIN |
| | | __ 2-Ethoxyethanol | BIODG; or INCIN | INCIN |

**Attachment III**

DuPont Environmental Treatment

## Treatment Standards for F039 Multisource Leachate Wastes

Instructions: Mark the constituents present in the waste.*

*Optional for wastes treated at the DuPont Wastewater Treatment Plant (WWTP). The WWTP monitors all F039 regulated constituents in its treatment residues.

| Constituents of Concern | Total Composition WW (mg/l) | Total Composition Non-WW (mg/kg) | Constituents of Concern | Total Composition WW (mg/l) | Total Composition Non-WW (mg/kg) |
|---|---|---|---|---|---|
| __Acenaphthylene | 0.059 | 3.4 | __2-Chloronaphthalene | 0.055 | 5.6 |
| __Acenaphthene | 0.059 | 3.4 | __2-Chlorophenol | 0.044 | 5.7 |
| __Acetone | 0.28 | 160 | __3-Chloropropylene | 0.036 | 30 |
| __Acetonitrile | 5.6 | NA | __Chrysene | 0.059 | 3.4 |
| __Acetophenone | 0.010 | 9.7 | __o-Cresol | 0.11 | 5.6 |
| __2-Acetylaminofluorene | 0.059 | 140 | __m-Cresol | 0.77 | 5.6 |
| __Acrolein | 0.29 | NA | __p-Cresol | 0.77 | 5.6 |
| __Acrylonitrile | 0.24 | 84 | __Cyclohexanone | 0.36 | NA |
| __Aldrin | 0.021 | 0.066 | __1,2-Dibromo-3-chloropropane | 0.11 | 15 |
| __4-Aminobiphenyl | 0.13 | NA | __Ethylene dibromide (1,2-Dibromoethane) | 0.028 | 15 |
| __Aniline | 0.81 | 14 | __Dibromomethane | 0.11 | 15 |
| __Anthracene | 0.059 | 3.4 | __2,4-D (2,4-Dichlorophenoxyacetic acid) | 0.72 | 10 |
| __Aramite | 0.36 | NA | __o,p'-DDD | 0.023 | 0.087 |
| __alpha-BHC | 0.00014 | 0.066 | __p,p'-DDD | 0.023 | 0.087 |
| __beta-BHC | 0.00014 | 0.066 | __o,p'-DDE | 0.031 | 0.087 |
| __delta-BHC | 0.023 | 0.066 | __p,p'-DDE | 0.031 | 0.087 |
| __gamma-BHC | 0.0017 | 0.066 | __o,p'-DDT | 0.0039 | 0.087 |
| __Benzene | 0.14 | 10 | __p,p'-DDT | 0.0039 | 0.087 |
| __Benz(a)anthracene | 0.059 | 3.4 | __Dibenz(a,h) anthracene | 0.055 | 8.2 |
| __Benzo(b)-fluoranthene | 0.11 | 6.8 | __Dibenzo(a,e) pyrene | 0.061 | NA |
| __Benzo(k)-fluoranthene | 0.11 | 6.8 | __m-Dichlorobenzene | 0.036 | 6.0 |
| __Benzo(g,h,i)-perylene | 0.0055 | 1.8 | __o-Dichlorobenzene | 0.088 | 6.0 |
| __Benzo(a)pyrene | 0.061 | 3.4 | __p-Dichlorobenzene | 0.090 | 6.0 |
| __Bromodichloromethane | 0.35 | 15 | __Dichlorodifluoromethane | 0.23 | 7.2 |
| __Methyl bromide (Bromomethane) | 0.11 | 15 | __1,1-Dichloroethane | 0.059 | 6.0 |
| __4-Bromophenyl phenyl ether | 0.055 | 15 | __1,2-Dichloroethane | 0.21 | 6.0 |
| __n-Butyl alcohol | 5.6 | 2.6 | __1,1-Dichloroethylene | 0.025 | 6.0 |
| __Butyl benzyl phthalate | 0.017 | 28 | __trans-1,2-Dichloroethylene | 0.054 | 30 |
| __2-sec-Butyl-4,6-dinitrophenol | 0.066 | 2.5 | __2,4-Dichlorophenol | 0.044 | 14 |
| __Carbon disulfide | 3.8 | NA | __2,6-Dichlorophenol | 0.044 | 14 |
| __Carbon tetrachloride | 0.057 | 6.0 | __1,2-Dichloropropane | 0.85 | 18 |
| __Chlordane (alpha & gamma isomers) | 0.0033 | 0.26 | __cis-1,3-Dichloropropene | 0.036 | 18 |
| __p-Chloroaniline | 0.46 | 16 | __trans-1,3-Dichloropropene | 0.036 | 18 |
| __Chlorobenzene | 0.057 | 6.0 | __Dieldrin | 0.017 | 0.13 |
| __Chlorobenzilate | 0.10 | NA | __Diethyl phthalate | 0.20 | 28 |
| __2-Chloro-1,3-butadiene | 0.057 | NA | __2,4-Dimethyl phenol | 0.036 | 14 |
| __Chlorodibromomethane | 0.057 | 15 | __Dimethyl phthalate | 0.047 | 28 |
| __Chloroethane | 0.27 | 6.0 | __Di-n-butyl phthalate | 0.057 | 28 |
| __bis(2-Chloroethoxy) methane | 0.036 | 7.2 | __1,4-Dinitrobenzene | 0.32 | 2.3 |
| __bis(2-Chloroethyl) ether | 0.033 | 6.0 | __4,6-Dinitro-o-cresol | 0.28 | 160 |
| __Chloroform | 0.046 | 6.0 | __2,4-Dinitrophenol | 0.12 | 160 |
| __bis(2-Chloroisopropyl) ether | 0.055 | 7.2 | __2,4-Dinitrotoluene | 0.32 | 140 |
| __p-Chloro-m-cresol | 0.018 | 14 | __2,6-Dinitrotoluene | 0.55 | 28 |
| __Chloromethane (Methyl chloride) | 0.19 | 30 | __Di-n-octyl phthalate | 0.017 | 28 |
| __Di-n-propylnitrosamine | 0.40 | 14 | __Nitrobenzene | 0.068 | 14 |
| __1,4-Dioxane | NA | 170 | __5-Nitro-o-toluidine | 0.32 | 28 |
| __Diphenylamine | 0.92 | NA | __p-Nitrophenol | 0.12 | 29 |
| __Diphenyl nitrosamine | 0.92 | NA | __N-Nitrosodiethylamine | 0.40 | 28 |
| __1,2-Diphenylhydrazine | 0.087 | NA | __N-Nitrosodimethylamine | 0.40 | NA |
| __Disulfoton | 0.017 | 6.2 | __N-Nitroso-di-n-butylamine | 0.40 | 17 |
| __Endosulfan I | 0.023 | 0.066 | __N-Nitrosomethylethylamine | 0.40 | 2.3 |

Attachment III (cont.)

## Treatment Standards for F039 Multisource Leachate Wastes

| Constituents of Concern | Total Composition WW (mg/l) | Total Composition Non-WW (mg/kg) |
|---|---|---|
| __ Endosulfan II | 0.029 | 0.13 |
| __ Endosulfan sulfate | 0.029 | 0.13 |
| __ Endrin | 0.0028 | 0.13 |
| __ Endrin aldehyde | 0.025 | 0.13 |
| __ Ethyl acetate | 0.34 | 33 |
| __ Ethyl cyanide (Propanenitrile) | 0.24 | 360 |
| __ Ethyl benzene | 0.057 | 10 |
| __ Ethyl ether | 0.12 | 160 |
| __ bis(2-Ethylhexyl) phthalate | 0.28 | 28 |
| __ Ethyl methacrylate | 0.14 | 160 |
| __ Ethylene oxide | 0.12 | NA |
| __ Famphur | 0.017 | 15 |
| __ Fluoranthene | 0.068 | 3.4 |
| __ Fluorene | 0.059 | 3.4 |
| __ Heptachlor | 0.0012 | 0.066 |
| __ Heptachlor epoxide | 0.016 | 0.066 |
| __ Hexachlorobenzene | 0.055 | 10 |
| __ Hexachlorocyclopentadiene | 0.057 | 2.4 |
| __ HxCDDs (Hexachlorodibenzo-p-dioxins) | 0.000063 | 0.001 |
| __ HxCDFs (Hexachlorodibenzofurans) | 0.000063 | 0.001 |
| __ Hexachloroethane | 0.055 | 30 |
| __ Hexachloropropylene | 0.035 | 30 |
| __ Indeno(1,2,3-c,d)pyrene | 0.0055 | 3.4 |
| __ Iodomethane | 0.19 | 65 |
| __ Isobutanol | 5.6 | 170 |
| __ Isodrin | 0.021 | 0.066 |
| __ Isosafrole | 0.081 | 2.6 |
| __ Kepone | 0.0011 | 0.13 |
| __ Methacrylonitrile | 0.24 | 84 |
| __ Methanol | 5.6 | NA |
| __ Methapyrilene | 0.081 | 1.5 |
| __ Methoxychlor | 0.25 | 0.18 |
| __ 3-Methylcholanthrene | 0.0055 | 15 |
| __ 4,4-Methylene-bis(2-chloroaniline) | 0.50 | 30 |
| __ Methylene chloride | 0.089 | 30 |
| __ Methyl ethyl ketone | 0.28 | 36 |
| __ Methyl isobutyl ketone | 0.14 | 33 |
| __ Methyl methacrylate | 0.14 | 160 |
| __ Methyl methanesulfonate | 0.018 | NA |
| __ Methyl parathion | 0.014 | 4.6 |
| __ Naphthalene | 0.059 | 5.6 |
| __ 2-Naphthylamine | 0.52 | NA |
| __ p-Nitroaniline | 0.028 | 28 |
| __ N-Nitrosomorpholine | 0.40 | 2.3 |
| __ N-Nitrosopiperidine | 0.013 | 35 |
| __ N-Nitrosopyrrolidine | 0.013 | 35 |
| __ Parathion | 0.014 | 4.6 |
| __ Total PCBs (sum of all PCB isomers) | 0.10 | 10 |
| __ Pentachlorobenzene | 0.055 | 10 |
| __ PeCDDs (Pentachlorodibenzofurans) | 0.000063 | 0.001 |
| __ PeCDFs (Pentachlorodibenzo-p-dioxins) | 0.000035 | 0.001 |
| __ Pentachloronitrobenzene | 0.055 | 4.8 |
| __ Pentachlorophenol | 0.089 | 7.4 |
| __ Phenacetin | 0.081 | 16 |
| __ Phenanthrene | 0.059 | 5.6 |
| __ Phenol | 0.039 | 6.2 |
| __ Phorate | 0.021 | 4.6 |
| __ Phthalic anhydride | 0.055 | NA |
| __ Pronamide | 0.093 | 1.5 |
| __ Pyrene | 0.067 | 8.2 |
| __ Safrole | 0.081 | 22 |
| __ Silvex (2,4,5-TP) | 0.72 | 7.9 |
| __ 2,4,5-T | 0.72 | 7.9 |
| __ 1,2,4,5-Tetrachlorobenzene | 0.055 | 14 |
| __ TCDDs (Tetrachlorodibenzo-furans) | 0.000063 | 0.001 |
| __ TCDFs (Tetrachlorodibenzo-p-dioxins) | 0.000063 | 0.001 |
| __ 1,1,1,2-Tetrachloroethane | 0.057 | 6.0 |
| __ 1,1,2,2-Tetrachloroethane | 0.057 | 6.0 |
| __ Tetrachloroethylene | 0.056 | 6.0 |
| __ 2,3,4,6-Tetrachlorophenol | 0.030 | 7.4 |
| __ Toluene | 0.080 | 10 |
| __ Toxaphene | 0.0095 | 2.6 |
| __ Bromoform (Tribromomethane) | 0.63 | 15 |
| __ 1,2,4-Trichlorobenzene | 0.055 | 19 |
| __ 1,1,1-Trichloroethane | 0.054 | 6.0 |
| __ 1,1,2-Trichloroethane | 0.054 | 6.0 |
| __ Trichloroethylene | 0.054 | 6.0 |
| __ Trichloromonofluoromethane | 0.020 | 30 |
| __ 2,4,5-Trichlorophenol | 0.18 | 7.4 |
| __ 2,4,6-Trichlorophenol | 0.035 | 7.4 |
| __ 1,2,3-Trichloropropane | 0.85 | 30 |
| __ 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.057 | 30 |
| __ tris(2,3-dibromopropyl) phosphate | 0.11 | NA |
| __ Vinyl chloride | 0.27 | 6.0 |
| __ Xylene(s) (sum of mixed isomers) | 0.32 | 30 |

| | | |
|---|---|---|
| __ Antimony | 1.9 | 2.1 mg/l [TCLP] |
| __ Arsenic | 1.4 | 5.0 mg/l [TCLP] |
| __ Barium | 1.2 | 7.6 mg/l [TCLP] |
| __ Beryllium | 0.82 | NA |
| __ Cadmium | 0.69 | 0.19 mg/l [TCLP] |
| __ Chromium (Total) | 2.77 | 0.86 mg/l [TCLP] |
| __ Cyanides (Total) | 1.2 | 590 |
| __ Cyanides (Amenable) | 0.86 | NA |
| __ Fluoride | 35 | NA |
| __ Lead | 0.69 | 0.37 mg/l [TCLP] |
| __ Mercury | 0.15 | 0.025 mg/l [TCLP] |
| __ Nickel | 3.98 | 5.0 mg/l [TCLP] |
| __ Selenium | 0.82 | 0.16 mg/l [TCLP] |
| __ Silver | 0.43 | 0.30 mg/l [TCLP] |
| __ Sulfide | 14 | NA |
| __ Thallium | 1.4 | NA |
| __ Vanadium | 4.3 | NA |

DUPONT

State of New Jersey
Department of Environmental Protection
Hazardous Waste Regulation Program
Manifest Section
CN 421, Trenton, NJ 08625-0421

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

*Form Approved. OMB No. 2050-0039. Expires 9-30-97*

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NYD131318651 — Manifest Document No.: 53049
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Sulzer Matco, 1101 Prospect Avenue, Westbury, NY 11590
4. Generator's Phone ( 516 ) 338-2337

A. State Manifest Document Number: NJA 2953049
B. State Generator's ID-(Gen. Site Address): Same

5. Transporter 1 Company Name: Trade Winds Environmental, Inc.
6. US EPA ID Number: NY0000936385

C. State Trans. ID-NJDEP: [illegible]
Decal No.- [illegible]

7. Transporter 2 Company Name: FREEHOLD CARTAGE INC.
8. US EPA ID Number: NJ0054126164

D. Transporter's Phone ( 516 ) 755-4000
E. State Trans. ID-NJDEP: [illegible]
Decal No.- [illegible]

9. Designated Facility Name and Site Address: E.I. du Pont de Nemours & Co., Inc., Chambers Works - Route 130, Deepwater, NJ 08023
10. US EPA ID Number: NJD002385730

F. Transporter's Phone ( 732 ) 462-1001
G. State Facility's ID
H. Facility's Phone ( 609 ) 540-2773

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group) | HM | | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | X | RQ, Hazardous Waste Liquids, N.O.S., (Lead)(D002) 9, NA3082, PG III [illegible] 171 | XX1 | TT | 01785 | G | D008 |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above
a. Lead
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a.
b.
c.
d.

15. Special Handling Instructions and Additional Information: Emergecny Contact: Trade Winds 516-755-4000

OW4052
Release# 032 NY-JA-113 Lic Plate # T491SM-NJ

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: David Smith — Signature: [illegible] — Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: David Smith — Signature: David Smith — Month Day Year: 07 23 98

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Month Day Year

GENERATOR / TRANSPORTER / FACILITY

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection and Energy. (609) 292-7172

NJA 2953049

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

8—GENERATOR COPY

P2SU000592

# FREEHOLD CARTAGE INC.


P.O. BOX 5010 • FREEHOLD, NJ 07728-5010
(732) 462-1001 • FAX (732) 308-0924

175 BARTOW MUN. AIRPORT
BARTOW, FL 33830
PHONE: (941) 533-4599
FAX: (941) 533-1613

108 MONAHAN AVENUE
DUNMORE, PA 18512
PHONE: (717) 342-7232
FAX: (717) 342-7367

350 PIGEON POINT ROAD
NEW CASTLE, DE 19720
PHONE: (302) 658-2005
FAX: (302) 658-6229

156 DRIFTWOOD DRIVE
EUTAWVILLE, SC 29048
PHONE/FAX: (803) 492-9595


## MANIFEST

FCI EPA ID NO.: NJD054126164

I66224

| GENERATOR NAME/ADDRESS | PHONE | GENERATOR EPA ID NO. |
|---|---|---|
| SULZER METCO<br>1101 PROSPECT AVENUE<br>WESTBURY NY 11590 | 516 (AREA CODE) 338-2337<br>TRACTOR: 523 TRAILER: 255 | NYD123131965 1<br>APPOINTMENT TIME: : |

| FCI REP. LOADING (PRINT) | PROCEDURE | BOX SPOTTED | BOX REMOVED | TIME AT GENERATOR (MILITARY TIME ONLY) |
|---|---|---|---|---|
| David Smith | VAC | ✓ | ✓ | 11:45 ARRIVAL TIME — 12:50 DEPARTURE TIME |

COMMENTS OR DELAYS AT GENERATOR

EQUIPMENT USED

BROKER:

PO#:

WO#: 69979

**STATE MANIFEST NO.:** NJA 2953049

| (X) HM | | PROPER U.S. D.O.T. SHIPPING NAME | U.S. D.O.T. HAZARDOUS CLASS | NA/UN/NO. | PACKING GROUP | NO. CONT. | CONT. TYPE | NET QUANTITY | UNIT MEASURE | WASTE NO. | FORM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X | 1 | Hazardous Waste Liquid, N.O.S. | 9 | 3082 | III | 1 | TI | 1785 | G | D008 | L |
| | 2 | | | | | | | | | | |
| | 3 | | | | | | | | | | |

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (I.E., IDENTIFICATION SHIPMENT OF A NON-HAZARDOUS NATURE WHICH DOES NOT HAVE TO BE MANIFESTED).

NY-JA-113

OW-4052 Rel-022 NJDEPE S2265-89146 Lic Plate #T495M-NJ

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The wastes described above were consigned to the Transported named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the generator is obligated to pay the agreed rate offered to the contractor.

| PLEASE PRINT NAME/TITLE | GENERATOR'S SIGNATURE | DATE LOADED |
|---|---|---|
| Myriam S. Lydon | X [signature] I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT. | 07/23/98 MO. DAY YR. |

| TSDF NAME/ADDRESS | PHONE | TSDF EPA ID NO. |
|---|---|---|
| E I DUPONT COMPANY<br>CHAMBERS WORKS RT #130<br>DEEPWATER NJ 08023 | 609 (AREA CODE) 540-2773<br>TRACTOR: 523 TRAILER: 255 | NJD002385730<br>APPOINTMENT TIME: : |

| FCI REP. UNLOADING (PRINT) | PROCEDURE | BOX SPOTTED | BOX REMOVED | TIME AT TSDF (MILITARY TIME ONLY) |
|---|---|---|---|---|
| David Smith | | ✓ | ✓ | : ARRIVAL TIME — : DEPARTURE TIME |

COMMENTS OR DELAYS AT TSDF

EQUIPMENT USED

| PLEASE PRINT NAME/TITLE | TSDF SIGNATURE | DATE UNLOADED |
|---|---|---|
| | X | 07/23/98 MO. DAY YR. |

| | | | | |
|---|---|---|---|---|
| AR H-0257 PC 944 | ME ME-HWT-47 ME-WOT-47 | MO H-1490 | NOVA SCOTIA, CANADA NSC 000 147 | QUEBEC, CANADA QC-6ML-047 |
| CT CT-HW-307 | MD HWH-167 96-OP-1765 | ND WH-429 | OH 333-HW | RI RI-535 |
| DE DE-HW-203 DE-SW-203 | MA MA-294 | NH TNH-0047 | OK 3358 | TX 40705 |
| IL SWH-1540 | MN 61572 | NJ S-2265 15939 | ONTARIO, CANADA A 840943 | WI 11602 |
| | | NY JA-113 | PA PA-AH-0067 | |

White - FCI Original
Yellow - FCI Billing
Blue - FCI Office/Customer
Green - Retained by TSDF
Gold - Retained by Generator

I66224

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/L | <0.1 | |
| Barium as Ba | mg/L | 2.2 | |
| Cadmium as Cd | mg/L | <0.1 | |
| Chromium as Cr | mg/L | 3.5 | |
| Lead as Pb | mg/L | 30 | |
| Mercury as Hg | mg/L | 0.0094 | |
| Selenium as Se | mg/L | 0.030 | |
| Silver as Ag | mg/L | <0.02 | |
| pH (lab) | units | 5.7 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn= 16105 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/L | <10 | |
| #2 Fuel Oil | ug/L | 710* | |
| #4 Fuel Oil | ug/L | <10 | |
| #6 Fuel Oil | ug/L | <10 | |
| Lubricating Oil | ug/L | <10 | |
| Mineral Spirits | ug/L | <10 | |
| JP4 | ug/L | <10 | |
| JP5 | ug/L | <10 | |
| Jet A | ug/L | <10 | |
| Kerosene | ug/L | <10 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn= 16108 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| m + p Xylene | ug/L | <2 |
| o Xylene | ug/L | <1 |
| Styrene | ug/L | <1 |
| Bromoform | ug/L | <1 |
| Isopropylbenzene | ug/L | <1 |
| 1122Tetrachloroethan | ug/L | <1 |
| Bromobenzene | ug/L | <1 |
| 123-Trichloropropane | ug/L | <1 |
| n-Propylbenzene | ug/L | <1 |
| 2-Chlorotoluene | ug/L | <1 |
| 135-Trimethylbenzene | ug/L | <1 |
| 4-Chlorotoluene | ug/L | <1 |
| tert-Butylbenzene | ug/L | <1 |
| 124-Trimethylbenzene | ug/L | <1 |
| sec-Butylbenzene | ug/L | <1 |
| p-Isopropyltoluene | ug/L | <1 |
| 1,2 Dichlorobenzene | ug/L | <1 |
| 1,3 Dichlorobenzene | ug/L | <1 |
| 1,4 Dichlorobenzene | ug/L | <1 |
| DBCP | ug/L | <1 |
| 124-Trichlorobenzene | ug/L | <1 |
| Hexachlorobutadiene | ug/L | <1 |
| Naphthalene | ug/L | <1 |
| 123-Trichlorobenzene | ug/L | <1 |
| c-1,3Dichloropropene | ug/L | <1 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| t-1,3Dichloropropene | ug/L | <1 |
| Acetone | ug/L | <10 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16107 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/L | <1 |
| Trichlorofluomethane | ug/L | <1 |
| 1,1 Dichloroethene | ug/L | <1 |
| Methylene Chloride | ug/L | <1 |
| t-1,2-Dichloroethene | ug/L | <1 |
| 1,1 Dichloroethane | ug/L | 5 |
| 2,2-Dichloropropane | ug/L | <1 |
| c-1,2-Dichloroethene | ug/L | <1 |
| Bromochloromethane | ug/L | <1 |
| Chloroform | ug/L | <1 |
| 111 Trichloroethane | ug/L | 11 |
| 1,1-Dichloropropene | ug/L | <1 |
| Carbon Tetrachloride | ug/L | <1 |
| Benzene | ug/L | <1 |
| 1,2 Dichloroethane | ug/L | <1 |
| Trichloroethylene | ug/L | <1 |
| 1,2 Dichloropropane | ug/L | <1 |
| Bromodichloromethane | ug/L | <1 |
| Dibromomethane | ug/L | <1 |
| Toluene | ug/L | <1 |
| 112 Trichloroethane | ug/L | <1 |
| Tetrachloroethene | ug/L | <1 |
| 1,3-Dichloropropane | ug/L | <1 |
| Chlorodibromomethane | ug/L | <1 |
| 1,2 Dibromoethane | ug/L | <1 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/L | <1 |
| Chlorobenzene | ug/L | <1 |
| Ethyl Benzene | ug/L | <1 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn= 16106 NYSDOH ID# 10320

Distribution box Soil waste

City Environmental, Inc.
1923 Frederick Street
Detroit, MI 48211
(313) 923-0080
(313) 923-0217 (FAX)

## <NOTICE>
## FROM GENERATOR FOR WASTES THAT DO NOT MEET LAND DISPOSAL TREATMENT STANDARDS

The wastes identified on manifest number M1701 8245 and bearing the EPA Hazardous Waste Number(s) D008 are subject to the land disposal restrictions of 40 CFR Part 268. The wastes do not meet the treatment standards specified in Part 268 Subpart D or do not meet the prohibitions specified in 268.32 or RCRA section 3004(d). The treatment standards or prohibition levels applicable to each waste are identified below:

(Check all boxes that apply.)

☐ This shipment includes F001 - F005 spent solvents, as identified on the attached sheet. (3)

☐ This shipment includes F039 multi-source leachate, as identified on the attached sheet(s), (4)

☐ This shipment includes D001 (5) and/or D002 (8) wastes prohibited under §268.37, as indentified below, (1)

☐ This shipment includes RCRA Section 3004(d) Califonia list wastes, as identified on the attached sheet. (2)

☒ This shipment includes one or more TC metals D004-D011 identified below.

☐ This shipment includes one or more TC orgainics D012-D043 identified below. (1)

| Hazardous Waste No. | Subcategory(6) | Treatability group (7) | CFR Reference for Treatment Standard | Five-letter code(s) |
|---|---|---|---|---|
| D008 | — | NWW | 268.43 | — |

(1) Must include form B (UTS)
(2) Must include form C (California list)
(3) Must include form D (F001-F005)
(4) Must include form E (F039)
(5) Subcategory for D001 referenced by letter A & B.
  (A) Ignitable wastes based on 40 CFR 261.21 (except for 261.21 (a) (1) high TOC subcategory), managed in Non-CWA / Non-CWA equivalent / Non Class 1 SDWA Systems. Less than 10% TOC.
  (B) Ignitable wastes based on 40 CFR 261.21 (except for 261.21 (a) (1) high TOC subcategory), managed in CWA / CWA equivalent / Class 1 SDWA Systems. Less than 10% TOC.
(6) Subcategory (if any) can be determined from 40 CFR 268, Subpart D.
(7) Treatability group is either "wastewater" or "nonwastewater".
(8) Subcategory for D002 is "Acid" or "Alkaline."

Authorized Signature

**FORM A**

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | <1 | |
| Barium as Ba | mg/Kg | 190 | |
| Cadmium as Cd | mg/Kg | <1 | |
| Chromium as Cr | mg/Kg | 64 | |
| Lead as Pb | mg/Kg | 210 | |
| Mercury as Hg | mg/Kg | 0.093 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | 0.71 | |
| % Solids | | 77 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn* 16097 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/Kg | <5 |
| Trichlorofluomethane | ug/Kg | <5 |
| 1,1 Dichloroethene | ug/Kg | <5 |
| Methylene Chloride | ug/Kg | <5 |
| t-1,2-Dichloroethene | ug/Kg | <5 |
| 1,1 Dichloroethane | ug/Kg | <5 |
| 2,2-Dichloropropane | ug/Kg | <5 |
| c-1,2-Dichloroethene | ug/Kg | <5 |
| Bromochloromethane | ug/Kg | <5 |
| Chloroform | ug/Kg | <5 |
| 111 Trichloroethane | ug/Kg | <5 |
| 1,1-Dichloropropene | ug/Kg | <5 |
| Carbon Tetrachloride | ug/Kg | <5 |
| Benzene | ug/Kg | <5 |
| 1,2 Dichloroethane | ug/Kg | <5 |
| Trichloroethylene | ug/Kg | <5 |
| 1,2 Dichloropropane | ug/Kg | <5 |
| Bromodichloromethane | ug/Kg | <5 |
| Dibromomethane | ug/Kg | <5 |
| Toluene | ug/Kg | <5 |
| 112 Trichloroethane | ug/Kg | <5 |
| Tetrachloroethene | ug/Kg | <5 |
| 1,3-Dichloropropane | ug/Kg | <5 |
| Chlorodibromomethane | ug/Kg | <5 |
| 1,2 Dibromoethane | ug/Kg | <5 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/Kg | <5 |
| Chlorobenzene | ug/Kg | <5 |
| Ethyl Benzene | ug/Kg | <5 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn= 16098 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| m + p Xylene | ug/Kg | <10 |
| o Xylene | ug/Kg | <5 |
| Styrene | ug/Kg | <5 |
| Bromoform | ug/Kg | <5 |
| Isopropylbenzene | ug/Kg | <5 |
| 1122Tetrachloroethan | ug/Kg | <5 |
| Bromobenzene | ug/Kg | <5 |
| 123-Trichloropropane | ug/Kg | <5 |
| n-Propylbenzene | ug/Kg | <5 |
| 2-Chlorotoluene | ug/Kg | <5 |
| 135-Trimethylbenzene | ug/Kg | <5 |
| 4-Chlorotoluene | ug/Kg | <5 |
| tert-Butylbenzene | ug/Kg | <5 |
| 124-Trimethylbenzene | ug/Kg | <5 |
| sec-Butylbenzene | ug/Kg | <5 |
| p-Isopropyltoluene | ug/Kg | <5 |
| 1,2 Dichlorobenzene | ug/Kg | <5 |
| 1,3 Dichlorobenzene | ug/Kg | <5 |
| 1,4 Dichlorobenzene | ug/Kg | <5 |
| DBCP | ug/Kg | <5 |
| 124-Trichlorobenzene | ug/Kg | <5 |
| Hexachlorobutadiene | ug/Kg | <5 |
| Naphthalene | ug/Kg | <5 |
| 123-Trichlorobenzene | ug/Kg | <5 |
| c-1,3Dichloropropene | ug/Kg | <5 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| t-1,3Dichloropropene | ug/Kg | <5 |
| Acetone | ug/Kg | <50 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16099 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <8000 | |
| #2 Fuel Oil | ug/Kg | 180000* | |
| #4 Fuel Oil | ug/Kg | <8000 | |
| #6 Fuel Oil | ug/Kg | <8000 | |
| Lubricating Oil | ug/Kg | <8000 | |
| Mineral Spirits | ug/Kg | <8000 | |
| JP4 | ug/Kg | <8000 | |
| JP5 | ug/Kg | <8000 | |
| Jet A | ug/Kg | <8000 | |
| Kerosene | ug/Kg | <8000 | |

cc;

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn= 16100 NYSDOH ID# 10320

Settling TANK, Soil WASTE

City Environmental, Inc.
1923 Frederick Street
Detroit, MI 48211
(313) 923-0080
(313) 923-0217 (FAX)

## <NOTICE>
## FROM GENERATOR FOR WASTES THAT DO NOT MEET LAND DISPOSAL TREATMENT STANDARDS

The wastes identified on manifest number M1701824 5 and bearing the EPA Hazardous Waste Number(s) F001, F002, D007, D008 are subject to the land disposal restrictions of 40 CFR Part 268. The wastes do not meet the treatment standards specified in Part 268 Subpart D or do not meet the prohibitions specified in 268.32 or RCRA section 3004(d). The treatment standards or prohibition levels applicable to each waste are identified below:

(Check all boxes that apply.)

☒ This shipment includes F001 - F005 spent solvents, as identified on the attached sheet. (3)

☐ This shipment includes F039 multi-source leachate, as identified on the attached sheet(s). (4)

☐ This shipment includes D001 (5) and/or D002 (8) wastes prohibited under §268.37, as indentified below. (1)

☐ This shipment includes RCRA Section 3004(d) Califonia list wastes, as identified on the attached sheet. (2)

☒ This shipment includes one or more TC metals D004-D011 identified below.

☐ This shipment includes one or more TC orgainics D012-D043 identified below. (1)

| Hazardous Waste No. | Subcategory[6] | Treatability group [7] | CFR Reference for Treatment Standard | Five-letter code(s) |
|---|---|---|---|---|
| D007 | — | NWW | 268.43 | |
| D008 | — | NWW | 268.43 | |
| F001 | — | NWW | 268.43 | |
| F002 | — | NWW | 268.43 | |
| | | | | |
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(1) Must include form B (UTS)
(2) Must include form C (California list)
(3) Must include form D (F001-F005)
(4) Must include form E (F039)
(5) Subcategory for D001 referenced by letter A & B.
  (A) Ignitable wastes based on 40 CFR 261.21 (except for 261.21 (a) (1) high TOC subcategory), managed in Non-CWA / Non-CWA equivalent / Non Class 1 SDWA Systems. Less than 10% TOC.
  (B) Ignitable wastes based on 40 CFR 261.21 (except for 261.21 (a) (1) high TOC subcategory), managed in CWA / CWA equivalent / Class 1 SDWA Systems. Less than 10% TOC.
(6) Subcategory (if any) can be determined from 40 CFR 268, Subpart D.
(7) Treatability group is either "wastewater" or "nonwastewater".
(8) Subcategory for D002 is "Acid" or "Alkaline."

Michael L Lee
*Authorized Signature*

**FORM A**

## TREATMENT STANDARDS FOR F001-F005 SPENT SOLVENTS

[Instructions: Check the box beside each waste included in the offsite shipment, circle or otherwise identify the individual constituents likely to be present in each waste.]

| Hazardous waste description | Constituents of concern | Nonwastewater: Total composition, mg/kg | Nonwastewater: TCLP, mg/L | Wastewater, coomposition, mg/L |
|---|---|---|---|---|
| ☒ F001 - Spent halogenated solvents used in degreasing | Carbon tetrachloride | 6.0 | — | 0.057 |
| | Methylene chloride | 30 | — | 0.089 |
| | Tetrachloroethylene | 6.0 | — | 0.056 |
| | 1,1,1-Trichloroethane | 6.0 | — | 0.054 |
| | Trichloroethylene | 6.0 | — | 0.054 |
| | 1,1,2-Trichloro-1,2,2-trifluoroethane[5] | 30 | — | 0.057 |
| | Trichloromonofluoromethane | 30 | — | 0.02 |
| ☒ F002 - Spent halogenated solvents | Chlorobenzene | 6.0 | — | 0.057 |
| | o-Dichlorobenzene | 6.0 | — | 0.088 |
| | Methylene chloride | 30 | — | 0.089 |
| | Methylene chloride (wastewater from the pharmaceutical industry) | — | | 0.44 |
| | Tetrachloroethylene | 6.0 | — | 0.056 |
| | 1,1,1-Trichloroethane | 6.0 | — | 0.054 |
| | 1,1,2-Trichloroethane | 6.0 | | 0.030 |
| | Trichloroethylene | 6.0 | — | 0.054 |
| | 1,1,2-Trichloro-1,2,2-trifluoroethane[5] | 30 | — | 0.057 |
| | Trichloromonofluoromethane | 30 | — | 0.02 |
| ☐ F003 - Spent non-halogenated solvents | Acetone | 160 | — | 0.28 |
| | n-Butyl alcohol | 2.6 | — | 5.6 |
| | Cyclohexanone[4] | | 0.75 | 0.36[4] |
| | Ethyl acetate | 33 | — | 0.34 |
| | Ethyl benzene | 10.0 | — | 0.057 |
| | Ethyl ether | 160 | — | 0.12 |
| | Methanol[4] | | 0.75 | 5.6[4] |
| | Methyl isobutyl ketone | 33 | — | 0.14 |
| | Xylenes (total) | 30 | — | 0.32 |
| ☐ F004 - Spent non-halogenated solvents | Cresol (m- and p-isomers) | 5.6 | — | 0.77 |
| | o-Cresol | 5.6 | — | 0.11 |
| | Nitrobenzene | 14 | — | 0.068 |
| | All Cresol mixed Isomers | 11.2 | — | 0.88 |
| ☐ F005 - Spent non-halogenated solvents | Benzene | 10 | | 0.14 |
| | Carbon disulfide[4] | | 4.8 | 3.8 |
| | 2-Ethoxyethanol | Incineration[1] | | Biological degradation or incineration[2] |
| | Isobutyl alcohol | 170 | — | 5.6 |
| | Methyl ethyl ketone | 36 | — | 0.28 |
| | 2-Nitropropane | Incineration[1] | | (Wet oxidation or chemical oxidation followed by carbon adsorption; or incineration[3]) |
| | Pyridine | 16 | — | 0.014 |
| | Toluene | 10 | — | 0.08 |

[1]Five-letter code is "INCIN"

[2]Five-letter codes are "BIODG; or INCIN".

[3]Five-letter codes are "(WETOX or CHOXD) fb CARBN; or INCIN".

[4]The treatment standards for carbon disulfide, cyclohexanone, and methanol nonwastewaters are based on the TCLP and apply only to spent solvents containing only one, two or all three of these constituents. If a waste contains any of these three constituents along with any of the other constituents found in F001-F005, then only the treatment standards for the other constituents apply (i.e., the standards for carbon disulfide, cyclohexanone, and methanol do not apply when other constituents are present). It appears that EPA made a technical error when it modified Tables CCW and CCWE in the August 18, 1992 final rule, because wastewater standards for these three constituents do not appear in either table. In the preamble to that rule, EPA indicates that the wastewater standards are 0.014 mg/L for carbon disulfide, 0.35 mg/L for cyclohexanone, and 5.6 mg/L for methanol. (57 FR 37205)

[5]The constituent of concern given here is believed to be correct. Although the August 18, 1992 final rule identifies the constituent as 1,1,2-trichloro-1,2,2trifluoromethane, historically the constituent has always been identified as 1,1,2-thrichloro-1,2,2-trifluoroethane.

FORM D

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | <1 | |
| Barium as Ba | mg/Kg | 480 | |
| Cadmium as Cd | mg/Kg | 26 | |
| Chromium as Cr | mg/Kg | 2200 | |
| Lead as Pb | mg/Kg | 680 | |
| Mercury as Hg | mg/Kg | 2.5 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | 1.5 | |
| % Solids | | 56 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn= 16101 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Groseer Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/Kg | 3700 |
| Trichlorofluomethane | ug/Kg | <1000 |
| 1,1 Dichloroethene | ug/Kg | 66000 |
| Methylene Chloride | ug/Kg | <1000 |
| t-1,2-Dichloroethene | ug/Kg | <1000 |
| 1,1 Dichloroethane | ug/Kg | 860000 |
| 2,2-Dichloropropane | ug/Kg | <1000 |
| c-1,2-Dichloroethene | ug/Kg | <1000 |
| Bromochloromethane | ug/Kg | <1000 |
| Chloroform | ug/Kg | <1000 |
| 111 Trichloroethane | ug/Kg | 4200000 |
| 1,1-Dichloropropene | ug/Kg | <1000 |
| Carbon Tetrachloride | ug/Kg | <1000 |
| Benzene | ug/Kg | <1000 |
| 1,2 Dichloroethane | ug/Kg | <1000 |
| Trichloroethylene | ug/Kg | <1000 |
| 1,2 Dichloropropane | ug/Kg | <1000 |
| Bromodichloromethane | ug/Kg | <1000 |
| Dibromomethane | ug/Kg | <1000 |
| Toluene | ug/Kg | 140000 |
| 112 Trichloroethane | ug/Kg | <1000 |
| Tetrachloroethene | ug/Kg | 34000 |
| 1,3-Dichloropropane | ug/Kg | <1000 |
| Chlorodibromomethane | ug/Kg | <1000 |
| 1,2 Dibromoethane | ug/Kg | <1000 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/Kg | <1000 |
| Chlorobenzene | ug/Kg | <1000 |
| Ethyl Benzene | ug/Kg | 4300 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn* 16102 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| m + p Xylene | ug/Kg | 31000 |
| o Xylene | ug/Kg | 8100 |
| Styrene | ug/Kg | <1000 |
| Bromoform | ug/Kg | <1000 |
| Isopropylbenzene | ug/Kg | <1000 |
| 1122Tetrachloroethan | ug/Kg | <1000 |
| Bromobenzene | ug/Kg | <1000 |
| 123-Trichloropropane | ug/Kg | <1000 |
| n-Propylbenzene | ug/Kg | <1000 |
| 2-Chlorotoluene | ug/Kg | <1000 |
| 135-Trimethylbenzene | ug/Kg | <1000 |
| 4-Chlorotoluene | ug/Kg | <1000 |
| tert-Butylbenzene | ug/Kg | <1000 |
| 124-Trimethylbenzene | ug/Kg | <1000 |
| sec-Butylbenzene | ug/Kg | <1000 |
| p-Isopropyltoluene | ug/Kg | <1000 |
| 1.2 Dichlorobenzene | ug/Kg | <1000 |
| 1,3 Dichlorobenzene | ug/Kg | <1000 |
| 1,4 Dichlorobenzene | ug/Kg | <1000 |
| DBCP | ug/Kg | <1000 |
| 124-Trichlorobenzene | ug/Kg | <1000 |
| Hexachlorobutadiene | ug/Kg | <1000 |
| Naphthalene | ug/Kg | <1000 |
| 123-Trichlorobenzene | ug/Kg | <1000 |
| c-1,3Dichloropropene | ug/Kg | <1000 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| t-1.3Dichloropropene | ug/Kg | <1000 |
| Acetone | ug/Kg | <10000 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16103 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <20000 | |
| #2 Fuel Oil | ug/Kg | 1300000* | |
| #4 Fuel Oil | ug/Kg | <20000 | |
| #6 Fuel Oil | ug/Kg | <20000 | |
| Lubricating Oil | ug/Kg | <20000 | |
| Mineral Spirits | ug/Kg | <20000 | |
| JP4 | ug/Kg | <20000 | |
| JP5 | ug/Kg | <20000 | |
| Jet A | ug/Kg | <20000 | |
| Kerosene | ug/Kg | <20000 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn# 16104 NYSDOH ID# 10320

# MILLER ENVIRONMENTAL GROUP INC.

516-369-4900 | P.O. Box 610, Calverton, NY 11933 | FAX 516-369-4909

Invoice # 046029

Page # 1

August 3, 1998

Sulzer Metco
1101 Prospect Ave
P.O. Box 1006
Westbury, NY 11590

AUG 10 1998

Customer # 11206

302699

| Description | Quantity/ Unit | Unit Price | Amount |
|---|---|---|---|
| RE: Spot rolloff container - Westbury | | | |
| 7/23/98 | | | |
| Nassau and Suffolk Spot/Pickup Charge | 1.00 SPOT | 450.00 | 450.00 |
| Trailer Liner | 1.00 EA | 85.00 | 85.00 |
| Rolloff Box rental 7/23-7/28/98 NO CHARGE | 6.00 DAY | | |
| 7/30/98 | | | |
| Disposal | 35.00 YARD | 235.00 | 8225.00 |
| | | | 8760.00 |
| | | Sales Tax | 744.60 |
| | | Total | 9504.60 |

8 1/2% Sales tax

Charge 847.0060

O/K TO PAY
8-21-98

TRADE-WINDS

SULZER METCO
1101 PROSPECT AVENUE
ATT: MIKE LYDEN
WESTBURY, NY 11590-0201

Invoice Number: 3617
Invoice Date: 7/29/98
Page: 1

RE: 1101 PROSPECT AVENUE
WESTBURY, NY 11590

| Customer PO | Due Date | Customer ID | Job ID |
|---|---|---|---|
| | DUE UPON RECEIPT | SUL003 | 2103E |

| Description | Amount |
|---|---|
| 7/22/98 | |
| VECTOR, OPERATOR AND (2) LABORERS | 1,750.00 |
| (21) DOT CERTIFIED DRUMS @ $32.65 P.D. | 653.00 |
| DISPOSAL OF LEAD CONTAMINATED LIQUIDS | 4,400.00 |
| TANKER TO HOLD LIQUIDS ON SITE (NO CHARGE) | |
| 7/23/98 | |
| VECTOR, OPERATOR AND (2) LABORERS 1/2 DAY | 875.00 |
| (10) DOT CERTIFIED DRUMS @ $32.65 P.D. | 326.50 |
| 7/30/98 | |
| DISPOSAL (27) DRUMS-SOLVENT CONTAMINATED SLUDGES @ $310.00 P.D. | 8,370.00 |
| DISPOSAL (4) DRUMS OF LEAD CONTAMINATED SOILS @ $245.00 P.D. | 980.00 |
| DEPOSIT | -2,500.00 |

| | |
|---|---|
| Subtotal | 14,854.50 |
| Sales Tax | 1,475.13 |
| Total Invoice Amount | 16,329.63 |


**Environmental Restoration Inc.**

100 Sweeneydale Avenue, Bay Shore, NY 11706 • 516-755-4000 • Fax: 516-435-4337 • 1-800-282-8701

STATEMENT OF CHARGES

KATHLEEN A. GAFFNEY, M.D., M.P.H.
COMMISSIONER OF HEALTH

TOXIC AND HAZARDOUS MATERIALS STORAGE, HANDLING AND CONTROL (ARTICLE XI)

NASSAU COUNTY DEPARTMENT OF HEALTH
240 OLD COUNTRY ROAD
MINEOLA, N. Y. 11501

SULZER METCO (US) INC.
MICHAEL S. LYDON
1101 PROSPECT AVE.
WESTBURY NY 11590

DATE : 09/01/98
FACILITY NO.: 001536
1101 PROSPECT AVE.
WESTBURY NY
SULZER METCO (US) INC.

---

| | | |
|---|---|---|
| APPLICATION FEE | = | 0 |
| TANK REGISTRATION FEE | | |
| BELOWGROUND AND/OR OUTDOOR ABOVEGROUND TANKS | | |
| 01 TANKS @ $50 PER TANK PER YEAR | = | 250 |
| INDOOR ABOVEGROUND TANKS | | |
| 00 TANKS @ $50 PER TANK PER YEAR | | |
| MAXIMUM FEE $200 PER YEAR | = | |
| CONTAINER AND BULK STORAGE AREA REGISTRATION | | |
| 0 AREAS @ $50 PER AREA PER YEAR | = | |
| TOTAL FEE | = | $250 |

---

YOUR REGISTRATION WILL BE VALID FOR 60 MONTHS. IF YOUR REGISTRATION WILL BE FOR LESS THAN A 5 YEAR PERIOD YOUR FEE HAS BEEN PRORATED.

IF YOU HAVE ANY QUESTIONS ABOUT THIS STATEMENT PLEASE CALL 516-571-2406.

PLEASE RETURN PAYMENT TOGETHER WITH ONE COPY OF THIS BILL WITHIN 30 DAYS TO:

NASSAU COUNTY DEPARTMENT OF HEALTH
OFFICE OF ACCOUNTS
240 OLD COUNTRY ROAD
MINEOLA, NY 11501

MAKE CHECK PAYABLE TO NASSAU COUNTY DEPARTMENT OF HEALTH.

NOTE: PROCESSING OF YOUR APPLICATION WILL NOT COMMENCE UNTIL BILL IS PAID.

CR DATE_____

THOMAS S. GULOTTA
COUNTY EXECUTIVE

KATHLEEN A. GAFFNEY, M.D., M.P.H.
COMMISSIONER

COUNTY OF NASSAU
DEPARTMENT OF HEALTH
240 OLD COUNTRY ROAD
MINEOLA, N.Y. 11501-4250

RECEIVED SEP 2 5 1998

September 22, 1998

Ms. Alison D. Walters
Project Manager/Environmental Engineer
P.W. Grosser Consulting Engineer &
Hydrogeologist, P.C.
630 Johnson Avenue, Suite 7
Bohemia, New York 11716

Re: Sulzer Metco
1101 Prospect Avenue
Westbury, New York 11590-0201

Dear Ms. Walters:

Department staff have reviewed the September 1998 closure report for a distribution box and settling tank formerly associated laboratories and metalizing departments at the above referenced facility.

The abandonment and removal of these structures were completed according to our guidelines. No further remedial activity is necessary regarding these two structures.

Very truly yours

Bruce F. Mackay, Chief
Office of Ground Water
Assessment and Enforcement
Bureau of Water Supply Protection

BFM:jc

0830Q (25)

THOMAS S. GULOTTA
COUNTY EXECUTIVE

KATHLEEN A. GAFFNEY, M.D., M.P.H.
COMMISSIONER

COUNTY OF NASSAU
DEPARTMENT OF HEALTH
240 OLD COUNTRY ROAD
MINEOLA, N.Y. 11501-4250

NOVEMBER 01, 1998

SULZER METCO (US) INC.
1101 PROSPECT AVE.
WESTBURY NY 11590

FACILITY ID: 001536
FACILITY ADDR: 1101 PROSPECT AVE.
FACILITY CITY: WESTBURY
RE: SECOND NOTICE OF REGISTRATION FEES DUE

DEAR MICHAEL S. LYDON

ON 09/01/98 A BILL WAS SENT TO YOU IN THE AMOUNT OF $250 FOR THE REGISTRATION OF YOUR TOXIC AND HAZARDOUS MATERIALS STORAGE FACILITY. AS OF THIS DATE, WE HAVE NOT RECEIVED PAYMENT.

AS REQUIRED BY SECTION 6(A) OF ARTICLE XI OF THE NASSAU COUNTY PUBLIC HEALTH ORDINANCE, YOU MUST HAVE A PERMIT TO OPERATE YOUR FACILITY. SUCH A PERMIT CANNOT BE ISSUED UNTIL ALL FEES ARE PAID. OPERATION WITHOUT A VALID PERMIT CAN SUBJECT YOUR FACILITY TO LEGAL ACTION AND A FINE OF UP TO $500 FOR EACH VIOLATION.

TO AVOID LEGAL ACTION, YOUR REGISTRATION FEE MUST BE FORWARDED PROMPTLY TO THIS DEPARTMENT.

VERY TRULY YOURS,

MICHAEL SEKRETA
BUREAU OF ENVIRONMENTAL
MANAGEMENT

HOT

To PURCHASING DEPT.

Date 07-22-98

To be used for Environmental Remediation

Date required

**SULZER METCO**

REQUISITION NUMBER 11770

REQUEST FOR PURCHASE

Trade Winds
100 Sweenydale Ave
Bay Shore, NY 11706

PURCHASE ORDER NO 302080

CONTACT

TEL NO 516-755-4000

| SHIP VIA | F.O.B. | TERMS | PROMISED DELIVERY DATE |
|---|---|---|---|
| | | | Project completed 07-22-98 |

GRAY AREAS FOR PURCHASING USE ONLY

| ITEM | QUANTITY | DESCRIPTION | TAX | PRICE |
|---|---|---|---|---|
| 1 | 1 | Vector vac truck, operator and 2 (two) laborers $1750/day | | |
| 2 | | DOT certified Drums 32.65 each | | |
| 3 | | Disposal of lead contaminated liquids $4,400 | | |
| 4 | | Disposal of lead contaminated sludges $245/drum | | |
| 5 | | Disposal of solvent contaminated sludges $310/drum | | |
| | | => $2,500 due upon start of job. 07-22-98. | | |
| | | | | TOTAL |

SUGGESTED SOURCE OF SUPPLY:

| WORK ORDER NUMBER | CHARGE NUMBER | REQUESTED BY | APPROVED BY | APPROVED BY |
|---|---|---|---|---|
| | 847.660 | M.S. Lydon 20010 | 7-28-98 | |

PLANT Robert Avenue
DEPT EHS
ATTN. M.S. Lydon.

YER

DELIVER TO:

PURCHASING
P2SUL002614

**SULZER METCO**

**REQUEST FOR CHECK**

DATE 07-22-98

VOUCHER NO. _____

VENDOR CODE _____

PLEASE ISSUE CHECK TO: Trade Winds
NAME

100 Sweeneydale Ave
STREET

Bay Shore, New York 11706
CITY AND STATE

In the amount of: $ 2500

To be used for: Environmental Remediation Project.

Account # 847.660

200010 - Requested by M.S. Lydon [signature]

Approved for payment [signature] 7-23-98

Special instructions to Accounting Department Need check ASAP.

D-1

P2SUL002615

SULZER METCO (US) INC.

**REMITTANCE ADVICE**

| P.O. NUMBER | VENDOR'S INVOICE | GROSS AMOUNT | DISCOUNT | NET AMOUNT | VOUCHER NO. |
|---|---|---|---|---|---|
| | 10-8-98 | 250.00 | | 250.00 | |
| | Tank Registration fee Fcacility No. 001536 | | | | |

ATTACHED CHECK IS TENDERED IN FULL PAYMENT AS NOTED ABOVE

FORM-0-183900 41727

DETACH BEFORE DEPOSITING CHECK

**SULZER METCO**

SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, N.Y. 11590-0201

62-26
311

4967-09

No. 41727

PAY TO THE ORDER OF

Nassau County Dept of Health
Office of Accounts
240 Old Country Road
Mineola, New York 11501

DATE

October 8, 1998

AMOUNT

$250.00***

VOID AFTER 90 DAYS

SULZER METCO (US) INC.

Chase Manhattan Delaware
1201 Market St.
Wilmington, De 19801

⑈00041727⑈ ⑆031100267⑆ 630449678 509⑈

**MILLER ENVIRONMENTAL GROUP INC.**

P.O. # _____

DATE 30 JULY 98 THURS

DAILY JOB REPORT

CUSTOMER SULZER METCO Phone MIKE LYDON 334-1300

BILLING ADDRESS 1101 PROSPECT AVE, PO BOX 1006, WESTBURY, N

LOCATION OF WORK SAME

JOB DESCRIPTION TRANSPORT WASTE FOR DISPOSAL

| MATERIALS | | SUBCONTRACTORS | |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

EQUIPMENT

ROLL-OFF TRK # 17

(1) WORKER PROTECTION LEVEL (0)

| PERSONNEL | TOTAL HOURS | PERSONNEL | TOTAL HOURS |
|---|---|---|---|
| H/T [signature] | | | |
| | | | |
| | | | |
| | | | |
| | | | |

DAILY OPERATIONS 0630 SECURED 14:30 SUBSISTENCE _____

DISPOSAL 35 YDS OIL DEBRIS SOLID TO CPC/PSC (CO# 10314)

BILL GRP. # _____

APPROVED X [signature]

CUSTOMER REPRESENTATIVE

33613

**MILLER ENVIRONMENTAL GROUP INC.**

P.O. # _____

DATE 23 ~~7~~ July 98

**DAILY JOB REPORT**

CUSTOMER SULZER METCO Phone Mike Lyon 334-1300

BILLING ADDRESS 1101 PROSPECT AVE, Po Box 1006, WESTBURY, NY 11590-0001

LOCATION OF WORK SAME

JOB DESCRIPTION SPOT ROLL-OFF CONTAINER

MATERIALS (1) LINER ROLL-OFF

SUBCONTRACTORS

EQUIPMENT

ROLL-OFF TRK # 42

NASSAU COUNTY SPOT CHARGE

ROLL-OFF BOX # 20-11

START RENTAL : 7/23

END RENTAL : 7/28/98

WORKER PROTECTION LEVEL –

| PERSONNEL | TOTAL HOURS | PERSONNEL | TOTAL HOURS |
|---|---|---|---|
| R. MINTON | | | |
| | | | |
| | | | |
| | | | |
| | | | |

DAILY OPERATIONS 1130 SECURED 14:30 SUBSISTENCE _____

DISPOSAL _____

BILL GRP. # 33614

APPROVED _____
CUSTOMER REPRESENTATIVE

# MILLER ENVIRONMENTAL GROUP INC.

516-369-4900
P.O. Box 610
Calverton, NY 11933
FAX 516-369-4909

Invoice # 046029

Page # 1

August 3, 1998

Sulzer Metco
1101 Prospect Ave
P.O. Box 1006
Westbury, NY 11590

AUG 10 1998

Customer # 11206

| Description | Quantity/ Unit | Unit Price | Amount |
|---|---|---|---|
| RE: Spot rolloff container - Westbury | | | |
| 7/23/98 | | | |
| Nassau and Suffolk Spot/Pickup Charge | 1.00 SPOT | 450.00 | 450.00 |
| Trailer Liner | 1.00 EA | 85.00 | 85.00 |
| Rolloff Box rental 7/23-7/28/98 NO CHARGE | 6.00 DAY | | |
| 7/30/98 | | | |
| Disposal | 35.00 YARD | 235.00 | 8225.00 |
| | | | 8760.00 |
| | | Sales Tax | 744.60 |
| | | Total | 9504.60 |

8 1/2% Sales tax

To PURCHASING DEPT.

Date 07-31-98

To be used for Prospect Environmental Project

Date required

# SULZER METCO

## REQUEST FOR PURCHASE

| REQUISITION NUMBER |
|---|
| 11771 |

Fax d.

Miller Environmental Group, Inc
538 Edwards Ave
Calverton, NY 11933

PURCHASE ORDER NO 302699

CONTACT Bill Fisher

TEL. NO 369-4900

| SHIP VIA | F.O.B. | TERMS | PROMISED DELIVERY DATE |
|---|---|---|---|
| | | | Roll-off project completed 07-29-98. For billing only |

GRAY AREAS FOR PURCHASING USE ONLY

| ITEM | QUANTITY | DESCRIPTION | TAX | PRICE |
|---|---|---|---|---|
| 1 | 1 | Drop off Roll-off container $450 | | |
| 2 | 1 | Roll-off liner $85 | | |
| 3 | 1 | Transport + Dispose 35 yards x $235/yard : $8225 | | |
| | | Total Project cost $8760 | | |
| | 8/21 | Received in | | |
| | | | | TOTAL |

SUGGESTED SOURCE OF SUPPLY:

| WORK ORDER NUMBER | CHARGE NUMBER | REQUESTED BY | APPROVED BY | APPROVED BY |
|---|---|---|---|---|
| | 847.00660 | M.S. Lydon 200010 | 8/3/98 | |

BUYER

DELIVER TO:

PLANT Prospect Avenue

DEPT. Environment, Health + Safety

ATTN. Michael S. Lydon.

P2SUL002620

RETAIN BY REQUISITIONER

**P. W. GROSSER**
CONSULTING
ENGINEER &
HYDROGEOLOGIST, P.C.

**KALOGERAS &**
**GROSSER**
CONSULTING
ENGINEERS, P.C.

630
JOHNSON
AVENUE
SUITE 7

BOHEMIA

NEW YORK
11716-2618

PHONE:
516-589-6353

FAX:
516-589-8705

E-MAIL:
pwgc-kg@worldnet.att.net

July 31, 1998

MR MICHAEL LYDON
SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201

Invoice No. SUL9802-01

Project: SUL9802– UIC Remediation

For Professional Engineering Services rendered in support of remediation and demolition of two buried drywells according to NCDH protocol. Tasks included solicitation of contractor quotes for price and scheduled availability; coordination with environmental and waste disposal contractors; coordination with NCDH to obtain timely site visits and Article XI registration; tank remediation endpoint and waste disposal characterization sample collection; laboratory analysis; contractor observation; engineering review of soil bearing issues at the new building extension; on site meetings; and review of endpoint results and research on cadmium background levels.

FEE BASIS: Hourly Rates plus Expenses in accordance with our proposal dated July 2, 1998.
BILLING PERIOD: July 2, 1998 through July 31, 1998

| | | | |
|---|---|---|---|
| 10.8 hrs. | J. Robert Holzmacher, P.E.<br>Senior Project Manager | @ $132.00/hr. | $ 1,425.60 |
| 30.0 hrs. | Alison D. Walter, I.E.<br>Environmental Project Mgr. | @ $69.00/hr. | $ 2,070.00 |
| 2.00 hrs. | James M. DeMartinis, P.G.<br>Senior Hydrogeologist | @ $140.00/hr. | $ 280.00 |

End Point and Disposal Soil Samples for 8 RCRA Metals,
TPH Method 8015b, VOCs Method 8260

| | |
|---|---|
| 2 samples @ $341/sample | $ 682.00 |
| 80% Lab Surcharge for two day results rush | $ 545.60 |
| INVOICE TOTAL: | $ 5,003.20 |

**AMOUNT PAYABLE: $ 5,003.20**

Please remit to: **P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**



**TERMS: NET 30 DAYS**
**ACCOUNTS UNPAID 30 DAYS AFTER THE INVOICE DATE ARE SUBJECT TO A SERVICE CHARGE OF 1.5% PER MONTH ON THE UNPAID BALANCE**
**PLEASE REFERENCE INVOICE NUMBER ON PAYMENT**

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**P. W. GROSSER**
CONSULTING
ENGINEER &
HYDROGEOLOGIST, P.C.

**KALOGERAS &**
**GROSSER**
CONSULTING
ENGINEERS, P.C.

July 31, 1998

MR MICHAEL LYDON
SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201

Invoice No. SUL9801-01

Project: SUL9801 – UIC Sampling

630
JOHNSON
AVENUE
SUITE 7

BOHEMIA

NEW YORK
11716-2616

PHONE:
516-589-6353

FAX:
516-589-8705

E-MAIL:
pwgc-kg@worldnet.att.net

For Professional Engineering Services rendered to provide technical support to close UIC issues for two exterior structures according to NCDH protocol. Tasks included coordination with the NCDH, initial sample collection for characterization and laboratory analysis in accordance with our signed proposal dated July 2, 1998.

BILLING PERIOD: July 2, 1998 through July 31, 1998

Task 1 – Closure Plan Preparation and Submittal
Work included negotiation with NCDH to waive the requirement for a closure plan.

| | | |
|---|---|---|
| FEE BASIS: Lump Sum | $ 1,500.00 | No Charge |

Task 2 – Sample Collection and Analysis
Work included coordination with the NCDH to observe and document initial sample collection; collection of samples from inside drywells for characterization; and laboratory analysis.

| | |
|---|---|
| FEE BASIS: Lump Sum | $ 1,700.00 |
| 80% Laboratory Surcharge for two day results rush | $ 800.00 |
| INVOICE TOTAL: | $ 2,500.00 |

**AMOUNT PAYABLE: $ 2,500.00**

Please remit to: **P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**

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**TERMS: NET 30 DAYS**
**ACCOUNTS UNPAID 30 DAYS AFTER THE INVOICE DATE ARE SUBJECT TO A SERVICE CHARGE OF 1.5% PER MONTH ON THE UNPAID BALANCE**
**PLEASE REFERENCE INVOICE NUMBER ON PAYMENT**



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**P. W. GROSSER**
CONSULTING
ENGINEER &
HYDROGEOLOGIST, P.C.

**KALOGERAS & GROSSER**
CONSULTING
ENGINEERS, P.C.

630
JOHNSON
AVENUE
SUITE 7

BOHEMIA
NEW YORK
11716-2618

PHONE:
516-589-6353

FAX:
516-589-8705

E-MAIL:
pwgc-kg@worldnet.att.net

August 31, 1998

MR MICHAEL LYDON
SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201

Invoice No. SUL9801-02

Project: SUL9801 – UIC Sampling

For Professional Engineering Services rendered to provide technical support to close UIC issues for two exterior structures according to NCDH protocol. Tasks included preparation of draft closure report and submittal to Mr. Michael Lydon, Mr. Russell Siedlewicz and Richard Rudolph, Esq. for review and comments in accordance with our signed proposal dated July 2, 1998.

BILLING PERIOD: August 1, 1998 through August 30, 1998

| | | |
|---|---|---|
| Task 3 – Draft Closure Report | | |
| FEE BASIS: Lump Sum | $ 1,500.00 | |
| | 70% complete | $ 1,050.00 |
| | INVOICE TOTAL: | $ 1,050.00 |
| **AMOUNT PAYABLE:** | | **$ 1,050.00** |

Please remit to: **P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**

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1990



**TERMS: NET 30 DAYS**
**ACCOUNTS UNPAID 30 DAYS AFTER THE INVOICE DATE ARE SUBJECT TO A SERVICE CHARGE OF 1.5% PER MONTH ON THE UNPAID BALANCE**
**PLEASE REFERENCE INVOICE NUMBER ON PAYMENT**

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**P. W. GROSSER**
CONSULTING
ENGINEER &
HYDROGEOLOGIST, P.C.

**KALOGERAS & GROSSER**
CONSULTING
ENGINEERS, P.C.

630
JOHNSON
AVENUE
SUITE 7

BOHEMIA

NEW YORK
11716-2618

PHONE:
516-589-6353

FAX:
516-589-8705

E-MAIL:
pwgc-kg@worldnet.att.net

September 29, 1998

MR MICHAEL LYDON
SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201

Invoice No. SUL9801-03

Project: SUL9801 – UIC Sampling

For Professional Engineering Services rendered to provide technical support to close UIC issues for two exterior structures according to NCDH protocol. Tasks included preparation of final closure report and submittal to Mr. Michael Lydon, Mr. Russell Siedlewicz, Richard Rudolph, Esq. and Mr. Bruce F. MacKay for final closure of the two structures in accordance with our signed proposal dated July 2, 1998.

BILLING PERIOD: August 31, 1998 through September 27, 1998

Task 3 – Final Closure Report
FEE BASIS: Lump Sum

| | |
|---|---|
| 100% Complete | $ 1,500.00 |
| Less Previous Invoice | $ 1,050.00 |
| | $ 450.00 |
| INVOICE TOTAL: | $ 450.00 |
| **AMOUNT PAYABLE:** | **$ 450.00** |

Please remit to: **P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**

*ACEC Member Supporting Exellence in Engineering Since 1990*



**TERMS: NET 30 DAYS**
**ACCOUNTS UNPAID 30 DAYS AFTER THE INVOICE DATE ARE SUBJECT TO A SERVICE CHARGE OF 1.5% PER MONTH ON THE UNPAID BALANCE**
**PLEASE REFERENCE INVOICE NUMBER ON PAYMENT**



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**P. W. GROSSER**
CONSULTING
ENGINEER &
HYDROGEOLOGIST, P.C.

**KALOGERAS &**
**GROSSER**
CONSULTING
ENGINEERS, P.C.

630
JOHNSON
AVENUE
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BOHEMIA

NEW YORK
11716-2618

PHONE:
516-589-6353

FAX:
516-589-8705

E-MAIL:
pwgc-kg@worldnet.att.net

September 29, 1998

MR MICHAEL LYDON
SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201

Invoice No. SUL9803-01

Project: SUL9803 – Floor Drain, Storm Drain Issues

For Professional Engineering Services rendered during review of floor drain, SPDES discharge and UIC issues raised by NCDH, and research of available information to document past and present discharge locations of floor drains and storm drains located at the facility.

BILLING PERIOD: Through September 27, 1998

| | | | |
|---|---|---|---|
| 6.6 hrs. | J. Robert Holzmacher, P.E.<br>Senior Project Manager | @ $132.00/hr. | $ 871.20 |
| 1.0 hr. | James M. DeMartinis, P.G.<br>Senior Hydrogeologist | @ $140.00/hr. | $ 140.00 |
| 4.0 hrs. | Alison D. Walter, E.I.T.<br>Project Mgr.-Environmental | @ $69.00/hr. | $ 276.00 |
| | | INVOICE TOTAL: | $1,287.20 |
| | **AMOUNT PAYABLE:** | | **$1,287.20** |

Please remit to: **P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**

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Engineering
Since
1990



**TERMS: NET 30 DAYS**
**ACCOUNTS UNPAID 30 DAYS AFTER THE INVOICE DATE ARE SUBJECT TO A SERVICE CHARGE OF 1.5% PER MONTH ON THE UNPAID BALANCE**
**PLEASE REFERENCE INVOICE NUMBER ON PAYMENT**



Printed on recycled paper

To PURCHASING DEPT.

Date 09-09-98

To be used for Tank Registration Fee

Date required

# SULZER METCO

## REQUEST FOR PURCHASE

REQUISITION NUMBER: 26266

Nassau County Department of Health
240 Old Country Rd.
Mineola, NY 11501

PURCHASE ORDER NO

CONTACT

TEL NO

| SHIP VIA | F.O.B. | TERMS | PROMISED DELIVERY DATE |
|---|---|---|---|
| | | | |

GRAY AREAS FOR PURCHASING USE ONLY

| ITEM | QUANTITY | DESCRIPTION | TAX | PRICE |
|---|---|---|---|---|
| 1 | 1 | Tank Registration Fee for 1101 Prospect Avenue. Facility # 001536 $250.00/100 | | |

TOTAL

SUGGESTED SOURCE OF SUPPLY:

| WORK ORDER NUMBER | CHARGE NUMBER | REQUESTED BY | APPROVED BY | APPROVED BY |
|---|---|---|---|---|
| | 847.00663 | M.S. Lydon 2D0010 | | |

BUYER

DELIVER TO:

PLANT Prospect Avenue
DEPT. Environment, Health + Safety
ATTN. Michael S. Lydon

PURCHASING

RETAIN P2SUL002626 TIONER

State of New Jersey
Department of Environmental Protection
Hazardous Waste Regulation Program
Manifest Section
CN 421, Trenton, NJ 08625-0421

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-97

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No. N J D 1 3 1 3 1 8 9 5 5 | Manifest Document No. 2049

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Sulzer Metco
1101 Prospect Avenue
Westbury, NY 11590

A. State Manifest Document Number NJA 2853049

B. State Generator's ID-(Gen. Site Address) Same

4. Generator's Phone ( 516 ) 338-2337

5. Transporter 1 Company Name: Trade Winds Environmental, Inc.

6. US EPA ID Number: N Y 0 0 0 0 9 3 6 3 8 5

C. State Trans. ID-NJDEP [illegible] Decal No.- [illegible]

7. Transporter 2 Company Name: [illegible]

8. US EPA ID Number: [illegible]

D. Transporter's Phone ( 516 ) 753-4000

E. State Trans. ID-NJDEP [illegible] Decal No.- [illegible]

9. Designated Facility Name and Site Address
E.I. du Pont de Nemours & Co., Inc.
Chambers Works - Route 130
Deepwater, NJ 08023

10. US EPA ID Number: N J D 0 0 2 3 8 3 7 3 0

F. Transporter's Phone ( 732 ) [illegible]

G. State Facility's ID

H. Facility's Phone ( 609 ) 540-2773

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group) | HM | | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| a. | X | RQ, Hazardous Waste Liquids, N.O.S., (Lead)(D002) 9, NA3082, PG III | X X 1 | T T | 0 1 7 5 5 | P | D 0 0 2 |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above
a. Lead
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a.
b.
c.
d.

15. Special Handling Instructions and Additional Information Emergency Contact: Trade Winds 516-753-4000
CW#032
Release# 032 NY-SA-113 Lic Plate [illegible]

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR — Printed/Typed Name: [illegible] Signature: [illegible] Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: David Smith Signature: [illegible] Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: David Smith Signature: David Smith Month Day Year 07 23 98

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name Signature Month Day Year

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection and Energy. (609) 292-7172

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

8—GENERATOR COPY

P2SUE002627

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

NJA 2853049

# FREEHOLD CARTAGE INC.

P.O. BOX 5010 • FREEHOLD, NJ 07728-5010
(732) 462-1001 • FAX (732) 308-0924

175 BARTOW MUN. AIRPORT
BARTOW, FL 33830
PHONE: (941) 533-4599
FAX: (941) 533-1613

108 MONAHAN AVENUE
DUNMORE, PA 18512
PHONE: (717) 342-7232
FAX: (717) 342-7367

350 PIGEON POINT ROAD
NEW CASTLE, DE 19720
PHONE: (302) 658-2005
FAX: (302) 658-6229

156 DRIFTWOOD DRIVE
EUTAWVILLE, SC 29048
PHONE/FAX: (803) 492-8595

## MANIFEST

FCI EPA ID NO.: NJD054126164

I66224

| GENERATOR NAME/ADDRESS | PHONE | GENERATOR EPA ID NO. |
|---|---|---|
| SULZER METCO<br>1101 PROSPECT AVENUE<br>WESTBURY NY 11590 | 516 (AREA CODE) 338-2337<br>TRACTOR 523 TRAILER 255 | NYD133196511<br>APPOINTMENT TIME : |

| FCI REP. LOADING (PRINT) | PROCEDURE | BOX SPOTTED | BOX REMOVED | TIME AT GENERATOR (MILITARY TIME ONLY) |
|---|---|---|---|---|
| David Smith | VAC | ✓ | ✓ | 11:45 ARRIVAL TIME — 12:50 DEPARTURE TIME |

COMMENTS OR DELAYS AT GENERATOR

EQUIPMENT USED

BROKER:

PO#:

WO#: 69979

**STATE MANIFEST NO.:** NJA 2953049

| (X) HM | | PROPER U.S. D.O.T. SHIPPING NAME | U.S. D.O.T. HAZARDOUS CLASS | NA/UN/NO. | PACKING GROUP | NO. CONT. | CONT. TYPE | NET QUANTITY | UNIT MEASURE | WASTE NO. | FORM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X | 1 | RQ HAZARDOUS WASTE LIQUID NOS | 9 | 3082 | III | 1 | TI | 1785 | G | D008 | L |
| | 2 | | | | | | | | | | |
| | 3 | | | | | | | | | | |

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (I.E., IDENTIFICATION SHIPMENT OF A NON-HAZARDOUS NATURE WHICH DOES NOT HAVE TO BE MANIFESTED).

NY-JA-113

OW-4052 REG-032 NJDEPE S2265-89146 Lic Plate #T4915M-NJ

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The wastes described above were consigned to the Transported named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the generator is obligated to pay the agreed rate offered to the contractor.

| PLEASE PRINT NAME/TITLE | GENERATOR'S SIGNATURE | DATE LOADED |
|---|---|---|
| Michael S. Lydon | X [signature] I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT. | 07/23/98 MO. DAY YR. |

| TSDF NAME/ADDRESS | PHONE | TSDF EPA ID NO. |
|---|---|---|
| E.I. DUPONT COMPANY<br>CHAMBERS WORKS RT #130<br>DEEPWATER NJ 08023 | 609 (AREA CODE) 540-2773<br>TRACTOR 523 TRAILER 255 | NJD002385730<br>APPOINTMENT TIME : |

| FCI REP. UNLOADING (PRINT) | PROCEDURE | BOX SPOTTED | BOX REMOVED | TIME AT TSDF (MILITARY TIME ONLY) |
|---|---|---|---|---|
| David Smith | | ✓ | ✓ | : ARRIVAL TIME — : DEPARTURE TIME |

COMMENTS OR DELAYS AT TSDF

EQUIPMENT USED

| PLEASE PRINT NAME/TITLE | TSDF SIGNATURE | DATE UNLOADED |
|---|---|---|
| | X | 07/23/98 MO. DAY YR. |

| | | | | |
|---|---|---|---|---|
| AR H-0257 PC 944 | ME ME-HWT-47 ME-WOT-47 | MO H-1490 | NOVA SCOTIA, CANADA NSC 000 147 | QUÉBEC, CANADA QC-6ML-047 |
| CT CT-HW-307 | MD HWH-167 96-OP-1765 | ND WH-429 | OH 333-HW | RI RI-535 |
| DE DE-HW-203 DE-SW-203 | MA MA-294 | NH TNH-0047 | OK 3358 | TX 40705 |
| IL SWH-1540 | MN 61572 | NJ S-2265 15939 | ONTARIO, CANADA A 840943 | WI 11602 |
| | | NY JA-113 | PA PA-AH-0067 | |

White - FCI Original
Yellow - FCI Billing
Blue - FCI Office/Customer
Green - Retained by TSDF
Gold - Retained by Generator

I66224

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | <1 | |
| Barium as Ba | mg/Kg | 190 | |
| Cadmium as Cd | mg/Kg | <1 | |
| Chromium as Cr | mg/Kg | 64 | |
| Lead as Pb | mg/Kg | 210 | |
| Mercury as Hg | mg/Kg | 0.093 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | 0.71 | |
| % Solids | | 77 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn= 16097 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue. Suite 7
Bohemia. NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro. SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/Kg | <5 |
| Trichlorofluomethane | ug/Kg | <5 |
| 1,1 Dichloroethene | ug/Kg | <5 |
| Methylene Chloride | ug/Kg | <5 |
| t-1,2-Dichloroethene | ug/Kg | <5 |
| 1,1 Dichloroethane | ug/Kg | <5 |
| 2,2-Dichloropropane | ug/Kg | <5 |
| c-1,2-Dichloroethene | ug/Kg | <5 |
| Bromochloromethane | ug/Kg | <5 |
| Chloroform | ug/Kg | <5 |
| 111 Trichloroethane | ug/Kg | <5 |
| 1,1-Dichloropropene | ug/Kg | <5 |
| Carbon Tetrachloride | ug/Kg | <5 |
| Benzene | ug/Kg | <5 |
| 1,2 Dichloroethane | ug/Kg | <5 |
| Trichloroethylene | ug/Kg | <5 |
| 1,2 Dichloropropane | ug/Kg | <5 |
| Bromodichloromethane | ug/Kg | <5 |
| Dibromomethane | ug/Kg | <5 |
| Toluene | ug/Kg | <5 |
| 112 Trichloroethane | ug/Kg | <5 |
| Tetrachloroethene | ug/Kg | <5 |
| 1,3-Dichloropropane | ug/Kg | <5 |
| Chlorodibromomethane | ug/Kg | <5 |
| 1,2 Dibromoethane | ug/Kg | <5 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/Kg | <5 |
| Chlorobenzene | ug/Kg | <5 |
| Ethyl Benzene | ug/Kg | <5 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn= 16098 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| m + p Xylene | ug/Kg | <10 |
| o Xylene | ug/Kg | <5 |
| Styrene | ug/Kg | <5 |
| Bromoform | ug/Kg | <5 |
| Isopropylbenzene | ug/Kg | <5 |
| 1122Tetrachloroethan | ug/Kg | <5 |
| Bromobenzene | ug/Kg | <5 |
| 123-Trichloropropane | ug/Kg | <5 |
| n-Propylbenzene | ug/Kg | <5 |
| 2-Chlorotoluene | ug/Kg | <5 |
| 135-Trimethylbenzene | ug/Kg | <5 |
| 4-Chlorotoluene | ug/Kg | <5 |
| tert-Butylbenzene | ug/Kg | <5 |
| 124-Trimethylbenzene | ug/Kg | <5 |
| sec-Butylbenzene | ug/Kg | <5 |
| p-Isopropyltoluene | ug/Kg | <5 |
| 1,2 Dichlorobenzene | ug/Kg | <5 |
| 1,3 Dichlorobenzene | ug/Kg | <5 |
| 1,4 Dichlorobenzene | ug/Kg | <5 |
| DBCP | ug/Kg | <5 |
| 124-Trichlorobenzene | ug/Kg | <5 |
| Hexachlorobutadiene | ug/Kg | <5 |
| Naphthalene | ug/Kg | <5 |
| 123-Trichlorobenzene | ug/Kg | <5 |
| c-1,3Dichloropropene | ug/Kg | <5 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| t-1,3Dichloropropene | ug/Kg | <5 |
| Acetone | ug/Kg | <50 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16099 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2616
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <8000 | |
| #2 Fuel Oil | ug/Kg | 180000* | |
| #4 Fuel Oil | ug/Kg | <8000 | |
| #6 Fuel Oil | ug/Kg | <8000 | |
| Lubricating Oil | ug/Kg | <8000 | |
| Mineral Spirits | ug/Kg | <8000 | |
| JP4 | ug/Kg | <8000 | |
| JP5 | ug/Kg | <8000 | |
| Jet A | ug/Kg | <8000 | |
| Kerosene | ug/Kg | <8000 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn* 16100 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | <1 | |
| Barium as Ba | mg/Kg | 480 | |
| Cadmium as Cd | mg/Kg | 26 | |
| Chromium as Cr | mg/Kg | 2200 | |
| Lead as Pb | mg/Kg | 680 | |
| Mercury as Hg | mg/Kg | 2.5 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | 1.5 | |
| % Solids | | 56 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn= 16101 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/Kg | 3700 |
| Trichlorofluomethane | ug/Kg | <1000 |
| 1,1 Dichloroethene | ug/Kg | 66000 |
| Methylene Chloride | ug/Kg | <1000 |
| t-1,2-Dichloroethene | ug/Kg | <1000 |
| 1,1 Dichloroethane | ug/Kg | 860000 |
| 2,2-Dichloropropane | ug/Kg | <1000 |
| c-1,2-Dichloroethene | ug/Kg | <1000 |
| Bromochloromethane | ug/Kg | <1000 |
| Chloroform | ug/Kg | <1000 |
| 111 Trichloroethane | ug/Kg | 4200000 |
| 1,1-Dichloropropene | ug/Kg | <1000 |
| Carbon Tetrachloride | ug/Kg | <1000 |
| Benzene | ug/Kg | <1000 |
| 1,2 Dichloroethane | ug/Kg | <1000 |
| Trichloroethylene | ug/Kg | <1000 |
| 1,2 Dichloropropane | ug/Kg | <1000 |
| Bromodichloromethane | ug/Kg | <1000 |
| Dibromomethane | ug/Kg | <1000 |
| Toluene | ug/Kg | 140000 |
| 112 Trichloroethane | ug/Kg | <1000 |
| Tetrachloroethene | ug/Kg | 34000 |
| 1,3-Dichloropropane | ug/Kg | <1000 |
| Chlorodibromomethane | ug/Kg | <1000 |
| 1,2 Dibromoethane | ug/Kg | <1000 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/Kg | <1000 |
| Chlorobenzene | ug/Kg | <1000 |
| Ethyl Benzene | ug/Kg | 4300 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn* 16102 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| m + p Xylene | ug/Kg | 31000 |
| o Xylene | ug/Kg | 8100 |
| Styrene | ug/Kg | <1000 |
| Bromoform | ug/Kg | <1000 |
| Isopropylbenzene | ug/Kg | <1000 |
| 1122Tetrachloroethan | ug/Kg | <1000 |
| Bromobenzene | ug/Kg | <1000 |
| 123-Trichloropropane | ug/Kg | <1000 |
| n-Propylbenzene | ug/Kg | <1000 |
| 2-Chlorotoluene | ug/Kg | <1000 |
| 135-Trimethylbenzene | ug/Kg | <1000 |
| 4-Chlorotoluene | ug/Kg | <1000 |
| tert-Butylbenzene | ug/Kg | <1000 |
| 124-Trimethylbenzene | ug/Kg | <1000 |
| sec-Butylbenzene | ug/Kg | <1000 |
| p-Isopropyltoluene | ug/Kg | <1000 |
| 1,2 Dichlorobenzene | ug/Kg | <1000 |
| 1,3 Dichlorobenzene | ug/Kg | <1000 |
| 1,4 Dichlorobenzene | ug/Kg | <1000 |
| DBCP | ug/Kg | <1000 |
| 124-Trichlorobenzene | ug/Kg | <1000 |
| Hexachlorobutadiene | ug/Kg | <1000 |
| Naphthalene | ug/Kg | <1000 |
| 123-Trichlorobenzene | ug/Kg | <1000 |
| c-1,3Dichloropropene | ug/Kg | <1000 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| t-1,3Dichloropropene | ug/Kg | <1000 |
| Acetone | ug/Kg | <10000 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16103 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <20000 | |
| #2 Fuel Oil | ug/Kg | 1300000* | |
| #4 Fuel Oil | ug/Kg | <20000 | |
| #6 Fuel Oil | ug/Kg | <20000 | |
| Lubricating Oil | ug/Kg | <20000 | |
| Mineral Spirits | ug/Kg | <20000 | |
| JP4 | ug/Kg | <20000 | |
| JP5 | ug/Kg | <20000 | |
| Jet A | ug/Kg | <20000 | |
| Kerosene | ug/Kg | <20000 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn= 16104 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/L | <0.1 | |
| Barium as Ba | mg/L | 2.2 | |
| Cadmium as Cd | mg/L | <0.1 | |
| Chromium as Cr | mg/L | 3.5 | |
| Lead as Pb | mg/L | 30 | |
| Mercury as Hg | mg/L | 0.0094 | |
| Selenium as Se | mg/L | 0.030 | |
| Silver as Ag | mg/L | <0.02 | |
| pH (lab) | units | 5.7 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn= 16105 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/L | <10 | |
| #2 Fuel Oil | ug/L | 710* | |
| #4 Fuel Oil | ug/L | <10 | |
| #6 Fuel Oil | ug/L | <10 | |
| Lubricating Oil | ug/L | <10 | |
| Mineral Spirits | ug/L | <10 | |
| JP4 | ug/L | <10 | |
| JP5 | ug/L | <10 | |
| Jet A | ug/L | <10 | |
| Kerosene | ug/L | <10 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn= 16108 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS | | |
|---|---|---|---|---|---|
| m + p Xylene | ug/L | <2 | t-1,3Dichloropropene | ug/L | <1 |
| o Xylene | ug/L | <1 | Acetone | ug/L | <10 |
| Styrene | ug/L | <1 | | | |
| Bromoform | ug/L | <1 | | | |
| Isopropylbenzene | ug/L | <1 | | | |
| 1122Tetrachloroethan | ug/L | <1 | | | |
| Bromobenzene | ug/L | <1 | | | |
| 123-Trichloropropane | ug/L | <1 | | | |
| n-Propylbenzene | ug/L | <1 | | | |
| 2-Chlorotoluene | ug/L | <1 | | | |
| 135-Trimethylbenzene | ug/L | <1 | | | |
| 4-Chlorotoluene | ug/L | <1 | | | |
| tert-Butylbenzene | ug/L | <1 | | | |
| 124-Trimethylbenzene | ug/L | <1 | | | |
| sec-Butylbenzene | ug/L | <1 | | | |
| p-Isopropyltoluene | ug/L | <1 | | | |
| 1,2 Dichlorobenzene | ug/L | <1 | | | |
| 1,3 Dichlorobenzene | ug/L | <1 | | | |
| 1,4 Dichlorobenzene | ug/L | <1 | | | |
| DBCP | ug/L | <1 | | | |
| 124-Trichlorobenzene | ug/L | <1 | | | |
| Hexachlorobutadiene | ug/L | <1 | | | |
| Naphthalene | ug/L | <1 | | | |
| 123-Trichlorobenzene | ug/L | <1 | | | |
| c-1,3Dichloropropene | ug/L | <1 | | | |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16107 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/L | <1 |
| Trichlorofluomethane | ug/L | <1 |
| 1,1 Dichloroethene | ug/L | <1 |
| Methylene Chloride | ug/L | <1 |
| t-1,2-Dichloroethene | ug/L | <1 |
| 1,1 Dichloroethene | ug/L | 5 |
| 2,2-Dichloropropane | ug/L | <1 |
| c-1,2-Dichloroethene | ug/L | <1 |
| Bromochloromethane | ug/L | <1 |
| Chloroform | ug/L | <1 |
| 111 Trichloroethane | ug/L | 11 |
| 1,1-Dichloropropene | ug/L | <1 |
| Carbon Tetrachloride | ug/L | <1 |
| Benzene | ug/L | <1 |
| 1,2 Dichloroethane | ug/L | <1 |
| Trichloroethylene | ug/L | <1 |
| 1,2 Dichloropropane | ug/L | <1 |
| Bromodichloromethane | ug/L | <1 |
| Dibromomethane | ug/L | <1 |
| Toluene | ug/L | <1 |
| 112 Trichloroethane | ug/L | <1 |
| Tetrachloroethene | ug/L | <1 |
| 1,3-Dichloropropane | ug/L | <1 |
| Chlorodibromomethane | ug/L | <1 |
| 1,2 Dibromoethane | ug/L | <1 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/L | <1 |
| Chlorobenzene | ug/L | <1 |
| Ethyl Benzene | ug/L | <1 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn= 16106 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982932.01 07/27/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample,Settling Tank End Point.1400

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| p-Isopropyltoluene | ug/Kg | <5 |
| 1,3 Dichlorobenzene | ug/Kg | <5 |
| 1,4 Dichlorobenzene | ug/Kg | <5 |
| n-Butylbenzene | ug/Kg | <5 |
| 1,2 Dichlorobenzene | ug/Kg | <5 |
| Dibromochloropropane | ug/Kg | <5 |
| 124-Trichlorobenzene | ug/Kg | <5 |
| Hexachlorobutadiene | ug/Kg | <5 |
| Naphthalene | ug/Kg | <5 |
| 123-Trichlorobenzene | ug/Kg | <5 |
| ter.ButylMethylEther | ug/Kg | <5 |
| p-Ethyltoluene | ug/Kg | <5 |
| Freon 113 | ug/Kg | <5 |
| 1245 Tetramethylbenz | ug/Kg! | <5 |
| Acetone | ug/Kg | <50 |
| Methyl Ethyl Ketone | ug/Kg | <50 |
| Methylisobutyiketone | ug/Kg | <50 |
| Chlorodifluoromethan | ug/Kg | <5 |
| p Diethylbenzene | ug/Kg | <5 |

ANALYTICAL PARAMETERS

cc:Michael Lydon (Sulzer Metco)

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 2 of 2.

DIRECTOR PRELIMINARY

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982932.01 07/27/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample.Settling Tank End Point.1400

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS | | |
|---|---|---|---|---|---|
| Dichlordifluomethane | ug/Kg | <5 | t-1.3Dichloropropene | ug/Kg | <5 |
| Chloromethane | ug/Kg | <5 | 112 Trichloroethane | ug/Kg | <5 |
| Vinyl Chloride | ug/Kg | <5 | Tetrachloroethene | ug/Kg | <5 |
| Bromomethane | ug/Kg | <5 | 1,3-Dichloropropane | ug/Kg | <5 |
| Chloroethane | ug/Kg | <5 | Chlorodibromomethane | ug/Kg | <5 |
| Trichlorofluomethane | ug/Kg | <5 | 1,2 Dibromoethane | ug/Kg | <5 |
| 1.1 Dichloroethene | ug/Kg | <5 | Chlorobenzene | ug/Kg | <5 |
| Methylene Chloride | ug/Kg | <5 | Ethyl Benzene | ug/Kg | <5 |
| t-1,2-Dichloroethene | ug/Kg | <5 | 1112Tetrachloroethan | ug/Kg | <5 |
| 1,1 Dichloroethane | ug/Kg | <5 | m + p Xylene | ug/Kg | <10 |
| 2,2-Dichloropropane | ug/Kg | <5 | o Xylene | ug/Kg | <5 |
| c-1,2-Dichloroethene | ug/Kg | <5 | Styrene | ug/Kg | <5 |
| Bromochloromethane | ug/Kg | <5 | Bromoform | ug/Kg | <5 |
| Chloroform | ug/Kg | <5 | Isopropylbenzene | ug/Kg | <5 |
| 111 Trichloroethane | ug/Kg | <5 | Bromobenzene | ug/Kg | <5 |
| Carbon Tetrachloride | ug/Kg | <5 | 1122Tetrachloroethan | ug/Kg | <5 |
| 1,1-Dichloropropene | ug/Kg | <5 | 123-Trichloropropane | ug/Kg | <5 |
| Benzene | ug/Kg | <5 | n-Propylbenzene | ug/Kg | <5 |
| 1,2 Dichloroethane | ug/Kg | <5 | 2-Chlorotoluene | ug/Kg | <5 |
| Trichloroethylene | ug/Kg | <5 | 135-Trimethylbenzene | ug/Kg | <5 |
| 1,2 Dichloropropane | ug/Kg | <5 | 4-Chlorotoluene | ug/Kg | <5 |
| Dibromomethane | ug/Kg | <5 | tert-Butylbenzene | ug/Kg | <5 |
| Bromodichloromethane | ug/Kg | <5 | 124-Trimethylbenzene | ug/Kg | <5 |
| c-1.3Dichloropropene | ug/Kg | <5 | sec-Butylbenzene | ug/Kg | <5 |
| Toluene | ug/Kg | <5 | | | |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Analysis was performed by GC/MS. EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982932.01 07/27/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample.Settling Tank End Point.1400

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <200 | |
| #2 Fuel Oil | ug/Kg | <200 | |
| #4 Fuel Oil | ug/Kg | <200 | |
| #6 Fuel Oil | ug/Kg | <200 | |
| Lubricating Oil | ug/Kg | <200 | |
| Mineral Spirits | ug/Kg | <200 | |
| JP4 | ug/Kg | <200 | |
| JP5 | ug/Kg | <200 | |
| Jet A | ug/Kg | <200 | |
| Kerosene | ug/Kg | <200 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Diesel Range Organics.
Analyses performed by Modified 8015 Method.

DIRECTOR PRELIMINARY

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982932.01 07/27/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample,Settling Tank End Point,1400

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | 0.42 | |
| Barium as Ba | mg/Kg | 4.7 | |
| Cadmium as Cd | mg/Kg | 1.9 | |
| Chromium as Cr | mg/Kg | 1.7 | |
| Lead as Pb | mg/Kg | 1.0 | |
| Mercury as Hg | mg/Kg | 0.0070 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | <0.05 | |
| % Solids | | 98 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS:

DIRECTOR PRELIMINARY

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982932.02 07/27/98

P.W. Crosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2616
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample, Disposal Sample. 1410

ANALYTICAL PARAMETERS

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| p-Isopropyltoluene | ug/Kg | <5 |
| 1,3 Dichlorobenzene | ug/Kg | <5 |
| 1,4 Dichlorobenzene | ug/Kg | <5 |
| n-Butylbenzene | ug/Kg | <5 |
| 1,2 Dichlorobenzene | ug/Kg | <5 |
| Dibromochloropropane | ug/Kg | <5 |
| 124-Trichlorobenzene | ug/Kg | <5 |
| Hexachlorobutadiene | ug/Kg | <5 |
| Naphthalene | ug/Kg | <5 |
| 123-Trichlorobenzene | ug/Kg | <5 |
| ter.ButylMethylEther | ug/Kg | <5 |
| p-Ethyltoluene | ug/Kg | <5 |
| Freon 113 | ug/Kg | <5 |
| 1245 Tetramethylbenz | ug/Kg! | <5 |
| Acetone | ug/Kg | <50 |
| Methyl Ethyl Ketone | ug/Kg | <50 |
| Methylisobutylketone | ug/Kg | <50 |
| Chlorodifluoromethan | ug/Kg | <5 |
| p Diethylbenzene | ug/Kg | <5 |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Analysis was performed by GC/MS. EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 2 of 2.

PRELIMINARY

DIRECTOR_____

**SULZER METCO**

# Telefax

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone:(516) 334-1300
Fax: (516) 338-2477

Place, date: Westbury, July 28, 1998

To: Ken @ Miller Environmental

Fax: 369-4909

From: Michael S. Lydon
Fax: (516) 338-2336
Phone: (516) 338-2337

Total pages: 4

Copy to:

**Re: Disposal Sample Results**

Ken:

Attached please find the soil lab results contained in your roll off container on my site. This container was ordered by Alison Walter from P. W. Grosser Consulting. Please let me know if you can pick up this container today if it is possible.

Thank you.

Sincerely,

Michael S. Lydon
Environment, Health & Safety

FILE: 0728981.DOC

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:932932.02 07/27/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample. Disposal Sample, 1410

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <200 | |
| #2 Fuel Oil | ug/Kg | 670 * | |
| #4 Fuel Oil | ug/Kg | <200 | |
| #6 Fuel Oil | ug/Kg | <200 | |
| Lubricating Oil | ug/Kg | 75000* | |
| Mineral Spirits | ug/Kg | <200 | |
| JP4 | ug/Kg | <200 | |
| JP5 | ug/Kg | <200 | |
| Jet A | ug/Kg | <200 | |
| Kerosene | ug/Kg | <200 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Diesel Range Organics.
Analyses performed by Modified 8015 Method.

*GC analysis indicates sample contains a mixture of Lubricating Oil and #2 Fuel Oil or Diesel.
Quality of match for #2 Fuel Oil = Good, for Lube = Good.

DIRECTOR PRELIMINARY

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982932.02 07/27/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2616
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample, Disposal Sample, 1410

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| p-Isopropyltoluene | ug/Kg | <5 |
| 1,3 Dichlorobenzene | ug/Kg | <5 |
| 1,4 Dichlorobenzene | ug/Kg | <5 |
| n-Butylbenzene | ug/Kg | <5 |
| 1,2 Dichlorobenzene | ug/Kg | <5 |
| Dibromochloropropane | ug/Kg | <5 |
| 124-Trichlorobenzene | ug/Kg | <5 |
| Hexachlorobutadiene | ug/Kg | <5 |
| Naphthalene | ug/Kg | <5 |
| 123-Trichlorobenzene | ug/Kg | <5 |
| ter.ButylMethylEther | ug/Kg | <5 |
| p-Ethyltoluene | ug/Kg | <5 |
| Freon 113 | ug/Kg | <5 |
| 1245 Tetramethylbenz | ug/Kg! | <5 |
| Acetone | ug/Kg | <50 |
| Methyl Ethyl Ketone | ug/Kg | <50 |
| Methylisobutylketone | ug/Kg | <50 |
| Chlorodifluoromethan | ug/Kg | <5 |
| p Diethylbenzene | ug/Kg | <5 |

ANALYTICAL PARAMETERS

cc:Michael Lydon (Sulzer Metco)

REMARKS: Analysis was performed by GC/MS. EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene


PRELIMINARY

DIRECTOR_____

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:992932.02 07/27/92

P.W. Grosser Consulting
630 Johnson Avenue Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/92 RECEIVED:07/23/92

SAMPLE: Soil sample. Disposal Sample, 1410

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | 1.1 | |
| Barium as Ba | mg/Kg | 15 | |
| Cadmium as Cd | mg/Kg | 19 | |
| Chromium as Cr | mg/Kg | 7.9 | |
| Lead as Pb | mg/Kg | 18 | |
| Mercury as Hg | mg/Kg | 0.038 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | <0.05 | |
| % Solids | | 94 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS:

PRELIMINARY

DIRECTOR_____

File

**P. W. GROSSER**
CONSULTING
ENGINEER &
HYDROGEOLOGIST, P.C.

**KALOGERAS & GROSSER**
CONSULTING
ENGINEERS, P.C.

630
JOHNSON
AVENUE
SUITE 7

BOHEMIA

NEW YORK
11716-2618

PHONE:
516-589-6353

FAX:
516-589-8705

E-MAIL:
pwgc-kg@worldnet.att.net

September 29, 1998

MR MICHAEL LYDON
SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201

Invoice No. SUL9801-03

Project: SUL9801 – UIC Sampling

For Professional Engineering Services rendered to provide technical support to close UIC issues for two exterior structures according to NCDH protocol. Tasks included preparation of final closure report and submittal to Mr. Michael Lydon, Mr. Russell Siedlewicz, Richard Rudolph, Esq. and Mr. Bruce F. MacKay for final closure of the two structures in accordance with our signed proposal dated July 2, 1998.

BILLING PERIOD: August 31, 1998 through September 27, 1998

Task 3 – Final Closure Report
FEE BASIS: Lump Sum

| | |
|---|---|
| 100% Complete | $ 1,500.00 |
| Less Previous Invoice | $ 1,050.00 |
| | $ 450.00 |
| INVOICE TOTAL: | $ 450.00 |
| **AMOUNT PAYABLE:** | **$ 450.00** |

Please remit to: **P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**

10-06-98 847-00663 PO# 302735

10-7-98

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1990



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**PLEASE REFERENCE INVOICE NUMBER ON PAYMENT**



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**P. W. GROSSER**
CONSULTING
ENGINEER &
HYDROGEOLOGIST, P.C.

**KALOGERAS &**
**GROSSER**
CONSULTING
ENGINEERS, P.C.

630
JOHNSON
AVENUE
SUITE 7

BOHEMIA

NEW YORK
11716-2618

PHONE:
516-589-6353

FAX:
516-589-8705

E-MAIL:
pwgc-kg@worldnet.att.net

July 31, 1998

MR MICHAEL LYDON
SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201

Invoice No. SUL9802-01

Project: SUL9802– UIC Remediation

For Professional Engineering Services rendered in support of remediation and demolition of two buried drywells according to NCDH protocol. Tasks included solicitation of contractor quotes for price and scheduled availability; coordination with environmental and waste disposal contractors; coordination with NCDH to obtain timely site visits and Article XI registration; tank remediation endpoint and waste disposal characterization sample collection; laboratory analysis; contractor observation; engineering review of soil bearing issues at the new building extension; on site meetings; and review of endpoint results and research on cadmium background levels.

FEE BASIS: Hourly Rates plus Expenses in accordance with our proposal dated July 2, 1998.

BILLING PERIOD: July 2, 1998 through July 31, 1998

PO 302735
847.00663

| | | | |
|---|---|---|---|
| 10.8 hrs. | J. Robert Holzmacher, P.E.<br>Senior Project Manager | @ $132.00/hr. | $ 1,425.60 |
| 30.0 hrs. | Alison D. Walter, I.E.<br>Environmental Project Mgr. | @ $69.00/hr. | $ 2,070.00 |
| 2.00 hrs. | James M. DeMartinis, P.G.<br>Senior Hydrogeologist | @ $140.00/hr. | $ 280.00 |

End Point and Disposal Soil Samples for 8 RCRA Metals, TPH Method 8015b, VOCs Method 8260

| | |
|---|---|
| 2 samples @ $341/sample | $ 682.00 |
| 80% Lab Surcharge for two day results rush | $ 545.60 |
| INVOICE TOTAL: | $ 5,003.20 |

dc 8-27-98

**AMOUNT PAYABLE: $ 5,003.20**

08-28-98

Please remit to: **P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**



**TERMS: NET 30 DAYS**
**ACCOUNTS UNPAID 30 DAYS AFTER THE INVOICE DATE ARE SUBJECT TO A SERVICE CHARGE OF 1.5% PER MONTH ON THE UNPAID BALANCE**
**PLEASE REFERENCE INVOICE NUMBER ON PAYMENT**

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1990



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ATTN MR Richard Rudolf

**P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**

**KALOGERAS & GROSSER CONSULTING ENGINEERS, P.C.**

630 JOHNSON AVENUE SUITE 7
BOHEMIA, NEW YORK 11716-2618
PHONE: (516) 589-6353
FAX: (516) 589-6705
E-MAIL: pwgc-kg@worldnet.att.net

# FAX TRANSMITTAL

**SENT TO:** Mr. Michael Lydon

**CC:** Mr. Russell Siedlewicz

**COMPANY:** Sulzer Metco (US) Inc.

**SUBJECT:** Closure Report for the two UICs

**FAX #:** 516/338-2336

**NO. PAGES (not including cover sheet):** 5

**SENT BY:** Alison Walter

**DATE:** August 7, 1998

**COMMENTS:**

**Michael, let me know what you and Russ think. I did not include the appendices because they are very long and you should have those copies. Does the attorney Rick Rudolph need to see the complete document before it goes to the NCDH? Please let me know how to forward a copy to him. When I met him he did not have any business cards. I will speak to you soon.**

**Regards,**

**Note: This fax contains privileged and confidential information and is intended to be read only by the addressed party.**

August 7, 1998

Mr. Bruce F. MacKay
Public Health Sanitarian
Division of Environmental Health
Nassau County Department of Health
240 Old Country Road
Mineola, NY 11501

Re: Final Closure Report for:
Sulzer Metco (US), Inc.
1101 Prospect Avenue
Westbury, NY

DRAFT

Dear Mr. MacKay:

P.W. Grosser Consulting Engineer & Hydrogeologist, P.C. (PWGC) prepared the following report to document the final closure of two exterior underground structures located in the parking lot of the above referenced site. Work was performed in accordance with the Nassau County Department of Health (NCDH) who was notified prior to scheduled work.

**BACKGROUND**

Sulzer Metco (US), Inc. was preparing to expand their existing building at the Westbury facility southward into the parking lot. A review of available facility plans from the 1950's showed discharges from former laboratories and metalizing departments to a distribution box and settling tank within the foot print of the proposed building. The distribution box appeared to be a brick manhole with several inlets and outlets. One of the outlets appeared to lead to the settling tank located approximately fifteen feet to the south. It was believed that these structures were not used since the 1970's.

The NCDH was notified of these structures and that Sulzer Metco wished to properly close them. It was not known at the time whether or not the structures were classified as USEPA Underground Injection wells (UICs) since it was not known if they leached directly to the subsurface. The NCDH suggested that PWGC not submit a closure plan until after the characterization samples were collected at which time it could be determined whether or not the structures had solid bottoms via probing with an auger.

## CHARACTERIZATION SAMPLING

Characterization sampling took place on July 14, 1998 to determine the soil and water quality within the structures. The NCDH was on site to witness the sampling event but elected not the collect split samples. Three samples were submitted to the laboratory for analysis; two composite soil samples and one liquid sample. A composite soil sample was collected from each structure and the liquid sample was collected from the settling tank. Each composite sample consisted of three soil samples extracted from the bottom of the structure. Composite samples are more representative of the soil conditions present in the bottom of the structures than the collection of one random sample.

The soil samples were collected using a hand held auger decontaminated prior to sampling with a non-phosphate detergent and tap water rinse. The liquid sample was collected from the settling tank with a dedicated bailer. The samples were placed in laboratory supplied glassware, stored on ice and transported to a New York State certified laboratory, (EcoTest Laboratory) for the following analysis:

- Volatile Organic Compounds (VOCs) by EPA Method 8260
- Total Petroleum Hydrocarbons (TPH) by EPA Method 8015b
- 8 RCRA Total Metals

DRAFT

The liquid sample was also analyzed for pH in anticipation of ultimate disposal of liquids removed from the settling tank to the Bay Park Facility of the Cedar Creek Water Pollution Control Plant.

### Distribution Box Sampling

The distribution box was approximately eight feet deep and four feet in diameter. When the auger samples were extracted from the bottom of the structure, the remaining voids filled with water. The three auger samples that were extracted contained dark grey medium to fine soil. A slight musty odor was noted. After the composite sample was jarred, the bottom of the structure was probed with a pole. It felt as though the bottom of the structure was solid and contained approximately two feet of soil. Since the structure retained some liquid, it was not unlikely that it had a solid bottom.

### Settling Tank Sampling

The settling tank liquid sample was collected prior to collecting the soil sample to avoid collecting suspended solids in the liquid sample unrepresentative of actual levels. Three bailer volumes of liquid were needed to fill the laboratory supplied glassware. The soil samples were then extracted from the bottom of the settling tank. Each auger extraction contained dark grey sludge-like soils exhibiting a very strong odor. The auger was then used to probe the bottom of the settling tank. It felt as though the settling tank contained six inches of sludge and had a solid bottom. The approximate depth of the settling tank was ten feet deep.

## ANALYTICAL RESULTS

Copies of the analytical results including the chain of custody are attached as Appendix A. A copy of the liquid analytical results was forwarded to Cedar Creek along with a request to dispose of the liquid contents to their Bay Park Facility. Cedar Creek would not accept the liquid contents based upon the elevated levels of lead detected at 30 ppm. The 2,000 gallons of liquid was ultimately disposed of as a hazardous waste and the manifest form is attached as Appendix B.

The soil sample analytical results from the distribution box and the settling tank were forwarded to an environmental contractor, Trade-Winds Environmental Restoration Inc. to determine whether the contents would be disposed of as a hazardous or nonhazardous waste. The distribution box soils were characterized as a hazardous waste because of the elevated levels of lead whereas the settling tank sludges were characterized as a hazardous waste because of the elevated levels of VOCs.

## EXCAVATION ACTIVITIES

DRAFT

The distribution box and settling tank were pumped of their contents on July 22 & 23, 1998. The NCDH was on site to witness and document the excavation activities. Trade-Winds Environmental Restoration Inc. used a high powered vacuum mounted truck called a "vactor truck" or "guzzler" to remove the soils from both structures separately. While the distribution box was being excavated, the liquid contents were pumped out of the settling tank into a temporary 5,000 gallon tanker. The following day, the disposal facility pumped the contents onto their tanker for transportation to the disposal facility. The soils were vacuumed out and placed directly into 55 gallon DOT certified drums to facilitate handling and disposal. The walls of the structures were power washed and the contents were vacuumed out and placed into drums. A total of four drums of soil were removed from the distribution box and 27 drums were removed from the settling tank and stored on site pending transportation to the disposal facility. The manifest forms are attached in Appendix B. It was confirmed that both structures had solid bottoms.

Because of the close proximity of the distribution box to the building, it was not required by the NCDH to remove the structure according to Article XI requirements. The proposed building addition would extend over the distribution box. Since the settling tank was located approximately twenty feet from the building, the NCDH requested that the settling tank be registered under the facility's Article XI permit and be removed. The NCDH also requested that upon removal, that an end point sample be collected from under the settling tank.

## SETTLING TANK REMOVAL

The settling tank was registered with the NCDH on July 23, 1998 and was removed on the same day. The settling tank was approximately ten feet in diameter and was constructed of cinder block. The excavator removed the soils around the structure first, so that the structural integrity of the tank could be visually inspected. There was no staining around the exterior of the tank and there were no

indication of leaks. The excavator then removed the dome and collapsed the top inwards. The cinder blocks were scooped up and placed into a lined roll off container. The bottom of the settling tank still contained a few gallons of liquid and the excavator attempted to pull up the slab as a whole piece so that the soils under the tank bottom could be visually inspected. No staining under the tank bottom was noted. The tank bottom was ten inches thick. A few gallons of liquid that remained in the tank had spilled out when the bottom was lifted, however, the excavator swiftly removed the impacted soils until dry soil conditions existed. The soils under the tank appeared to be clean dry native soils. The roll off container was filled with the cinder block debris and surrounding bottom soils. The excavator removed a final scoop of soil at approximately fifteen feet which was screened with a photoionization detector which showed no response. An end point sample was collected and placed in laboratory supplied glassware as detailed earlier and analyzed for the same compounds.

A composite sample was collected from the roll off container for disposal characterization analysis. The analytical results attached as Appendix C shows that the contents of the roll off were nonhazardous. The manifest forms are also included in Appendix C.

DRAFT

## ENDPOINT SAMPLE ANALYTICAL RESULTS

The end point sample collected from under the settling tank was analyzed for VOCs, TPH and Total Metals (analytical data attached as Appendix D). The analytical results were compared to the soil clean up objectives contained in the NYSDEC Technical and Administrative Guidance Memorandum (TAGM HWR-94-4046 Jan. 24, 1994). Although the TAGM specifically applies to the NYSDEC listed hazardous waste sites, the NCDH and USEPA have typically used this document to determine if cleanup of injection wells is appropriate for non-listed sites.

The end point analytical results for the constituents were below the TAGM with the exception of cadmium. The detected level of cadmium was 1.9 compared to the recommended soil clean up objective level of 1.0 or site background. The cadmium level detected is considered to be reasonable as site background for this industrial area. It is unlikely that the levels of cadmium detected beneath the settling tank originated from within the settling tank based on soil quality data collected within the tank. When reviewing the initial settling tank metals levels, chromium was detected at 2200 ppm. In the end point sample, chromium was detected at 1.7 ppm. In the initial settling tank sample, cadmium was detected at 26 ppm.

PWGC reviewed the literature on cadmium background levels in soil. Allaway (1968) reports concentrations of cadmium in U.S. soils to range from 0.01 to 7.0 ppm; the USDA (1985) reported concentrations of cadmium in New York State agricultural soils as high as 1.7 ppm and Baldwin (1995) reports a range of cadmium concentrations in Long Island soils from 0.55 to 1.4 ppm. The detected level of 1.9 is not significantly greater than background levels presented in the literature, especially for an industrial area.

It is requested at this time that the NCDH close their files on the Sulzer Metco (US) facility with regard to the settling tank and distribution box issues. If you require additional information, please do not hesitate to call. Your prompt response to this matter is greatly appreciated.

Very truly yours,
**PWGC/K&G**

DRAFT

J. Robert Holzmacher
Senior Project Manager-Engineer

encl.
JRH:adw

cc: M. Lydon, Sulzer Metco (US)
R. Seidlowitz, Sulzer Metco (US)

J:\shared\pwg\sul\9802\closrpt.wpd

**P. W. GROSSER**
CONSULTING
ENGINEER &
HYDROGEOLOGIST, P.C.

**KALOGERAS &**
**GROSSER**
CONSULTING
ENGINEERS, P.C.

630
JOHNSON
AVENUE
SUITE 7

BOHEMIA

NEW YORK
11716-2618

PHONE:
516-589-6353

FAX:
516-589-6705

E-MAIL:
pwgc-kg@worldnet.att.net

July 31, 1998

MR MICHAEL LYDON
SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201

Invoice No. SUL9802-01

Project: SUL9802– UIC Remediation

For Professional Engineering Services rendered in support of remediation and demolition of two buried drywells according to NCDH protocol. Tasks included solicitation of contractor quotes for price and scheduled availability; coordination with environmental and waste disposal contractors; coordination with NCDH to obtain timely site visits and Article XI registration; tank remediation endpoint and waste disposal characterization sample collection; laboratory analysis; contractor observation; engineering review of soil bearing issues at the new building extension; on site meetings; and review of endpoint results and research on cadmium background levels.

FEE BASIS: Hourly Rates plus Expenses in accordance with our proposal dated July 2, 1998.
BILLING PERIOD: July 2, 1998 through July 31, 1998

| | | | |
|---|---|---|---|
| 10.8 hrs. | J. Robert Holzmacher, P.E.<br>Senior Project Manager | @ $132.00/hr. | $ 1,425.60 |
| 30.0 hrs. | Alison D. Walter, I.E.<br>Environmental Project Mgr. | @ $69.00/hr. | $ 2,070.00 |
| 2.00 hrs. | James M. DeMartinis, P.G.<br>Senior Hydrogeologist | @ $140.00/hr. | $ 280.00 |

End Point and Disposal Soil Samples for 8 RCRA Metals,
TPH Method 8015b, VOCs Method 8260

| | |
|---|---|
| 2 samples @ $341/sample | $ 682.00 |
| 80% Lab Surcharge for two day results rush | $ 545.60 |
| INVOICE TOTAL: | $ 5,003.20 |

**AMOUNT PAYABLE: $ 5,003.20**

Please remit to: **P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**



TERMS: NET 30 DAYS
ACCOUNTS UNPAID 30 DAYS AFTER THE INVOICE DATE ARE SUBJECT TO A SERVICE CHARGE OF 1.5% PER MONTH ON THE UNPAID BALANCE
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CONSULTING
ENGINEER &
HYDROGEOLOGIST, P.C.

**KALOGERAS &**
**GROSSER**
CONSULTING
ENGINEERS, P.C.

630
JOHNSON
AVENUE
SUITE 7

BOHEMIA

NEW YORK
11716-2618

PHONE:
516-589-6353

FAX:
516-589-8705

E-MAIL:
pwgc-kg@worldnet.att.net

July 31, 1998

MR MICHAEL LYDON
SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201

Invoice No. SUL9801-01

Project: SUL9801 – UIC Sampling

For Professional Engineering Services rendered to provide technical support to close UIC issues for two exterior structures according to NCDH protocol. Tasks included coordination with the NCDH, initial sample collection for characterization and laboratory analysis in accordance with our signed proposal dated July 2, 1998.

BILLING PERIOD: July 2, 1998 through July 31, 1998

Task 1 – Closure Plan Preparation and Submittal
Work included negotiation with NCDH to waive the requirement for a closure plan.
FEE BASIS: Lump Sum $ 1,500.00 No Charge

Task 2 – Sample Collection and Analysis
Work included coordination with the NCDH to observe and document initial sample collection; collection of samples from inside drywells for characterization; and laboratory analysis.
FEE BASIS: Lump Sum $ 1,700.00
80% Laboratory Surcharge for two day results rush $ 800.00

INVOICE TOTAL: $ 2,500.00

**AMOUNT PAYABLE: $ 2,500.00**

Please remit to: **P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**

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**SULZER METCO**

# Telefax

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone:(516) 334-1300
Fax: (516) 338-2477

Place, date: Westbury, August 10, 1998

To: Alison Walter

Fax:5898705

From: Michael S. Lydon
Fax: (516) 338-2336
Phone: (516) 338-2337

Total pages: 5

Copy to:

**Re: Closure report for two UIC's**

Alison:

Attached please find the comments on the closure plan. Please call me as soon as it is convenient to discuss the comments.

Thank you.

Sincerely,

Michael S. Lydon
Environment, Health & Safety

FILE:0810982.DOC

**ECOTEST LABORATORIES, INC.** *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.982932.01 07/29/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample,Settling Tank End Point,1400

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | 0.42 | |
| Barium as Ba | mg/Kg | 4.7 | |
| Cadmium as Cd | mg/Kg | 1.9 | |
| Chromium as Cr | mg/Kg | 1.7 | |
| Lead as Pb | mg/Kg | 1.0 | |
| Mercury as Hg | mg/Kg | 0.0070 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | <0.05 | |
| % Solids | | 98 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS:

DIRECTOR

rn= 17109 NYSDOH ID# 10120

**ECOTEST LABORATORIES, INC.** *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.982932.01 07/29/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample,Settling Tank End Point,1400

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <200 | |
| #2 Fuel Oil | ug/Kg | <200 | |
| #4 Fuel Oil | ug/Kg | <200 | |
| #6 Fuel Oil | ug/Kg | <200 | |
| Lubricating Oil | ug/Kg | <200 | |
| Mineral Spirits | ug/Kg | <200 | |
| JP4 | ug/Kg | <200 | |
| JP5 | ug/Kg | <200 | |
| Jet A | ug/Kg | <200 | |
| Kerosene | ug/Kg | <200 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Diesel Range Organics.
Analyses performed by Modified 8015 Method.

DIRECTOR

rn= 17110 NYSDOH ID# 10320

**ECOTEST LABORATORIES, INC.** *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.982932.01 07/29/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample,Settling Tank End Point,1400

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS | | |
|---|---|---|---|---|---|
| Dichlordifluomethane | ug/Kg | <5 | t-1,3Dichloropropene | ug/Kg | <5 |
| Chloromethane | ug/Kg | <5 | 112 Trichloroethane | ug/Kg | <5 |
| Vinyl Chloride | ug/Kg | <5 | Tetrachloroethene | ug/Kg | <5 |
| Bromomethane | ug/Kg | <5 | 1,3-Dichloropropane | ug/Kg | <5 |
| Chloroethane | ug/Kg | <5 | Chlorodibromomethane | ug/Kg | <5 |
| Trichlorofluomethane | ug/Kg | <5 | 1,2 Dibromoethane | ug/Kg | <5 |
| 1,1 Dichloroethene | ug/Kg | <5 | Chlorobenzene | ug/Kg | <5 |
| Methylene Chloride | ug/Kg | <5 | Ethyl Benzene | ug/Kg | <5 |
| t-1,2-Dichloroethene | ug/Kg | <5 | 1112Tetrachloroethan | ug/Kg | <5 |
| 1,1 Dichloroethane | ug/Kg | <5 | m + p Xylene | ug/Kg | <10 |
| 2,2-Dichloropropane | ug/Kg | <5 | o Xylene | ug/Kg | <5 |
| c-1,2-Dichloroethene | ug/Kg | <5 | Styrene | ug/Kg | <5 |
| Bromochloromethane | ug/Kg | <5 | Bromoform | ug/Kg | <5 |
| Chloroform | ug/Kg | <5 | Isopropylbenzene | ug/Kg | <5 |
| 111 Trichloroethane | ug/Kg | <5 | Bromobenzene | ug/Kg | <5 |
| Carbon Tetrachloride | ug/Kg | <5 | 1122Tetrachloroethan | ug/Kg | <5 |
| 1,1-Dichloropropene | ug/Kg | <5 | 123-Trichloropropane | ug/Kg | <5 |
| Benzene | ug/Kg | <5 | n-Propylbenzene | ug/Kg | <5 |
| 1,2 Dichloroethane | ug/Kg | <5 | 2-Chlorotoluene | ug/Kg | <5 |
| Trichloroethylene | ug/Kg | <5 | 135-Trimethylbenzene | ug/Kg | <5 |
| 1,2 Dichloropropane | ug/Kg | <5 | 4-Chlorotoluene | ug/Kg | <5 |
| Dibromomethane | ug/Kg | <5 | tert-Butylbenzene | ug/Kg | <5 |
| Bromodichloromethane | ug/Kg | <5 | 124-Trimethylbenzene | ug/Kg | <5 |
| c-1,3Dichloropropene | ug/Kg | <5 | sec-Butylbenzene | ug/Kg | <5 |
| Toluene | ug/Kg | <5 | | | |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR

rn= 17111 NYSDOH ID# 10320

**ECOTEST LABORATORIES, INC.** *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.982932.01 07/29/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample,Settling Tank End Point,1400

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| p-Isopropyltoluene | ug/Kg | <5 | |
| 1,3 Dichlorobenzene | ug/Kg | <5 | |
| 1,4 Dichlorobenzene | ug/Kg | <5 | |
| n-Butylbenzene | ug/Kg | <5 | |
| 1,2 Dichlorobenzene | ug/Kg | <5 | |
| Dibromochloropropane | ug/Kg | <5 | |
| 124-Trichlorobenzene | ug/Kg | <5 | |
| Hexachlorobutadiene | ug/Kg | <5 | |
| Naphthalene | ug/Kg | <5 | |
| 123-Trichlorobenzene | ug/Kg | <5 | |
| ter.ButylMethylEther | ug/Kg | <5 | |
| p-Ethyltoluene | ug/Kg | <5 | |
| Freon 113 | ug/Kg | <5 | |
| 1245 Tetramethylbenz | ug/Kg! | <5 | |
| Acetone | ug/Kg | <50 | |
| Methyl Ethyl Ketone | ug/Kg | <50 | |
| Methylisobutylketone | ug/Kg | <50 | |
| Chlorodifluoromethan | ug/Kg | <5 | |
| p Diethylbenzene | ug/Kg | <5 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 2 of 2.

DIRECTOR

rn= 17112 NYSDOH ID# 10320

**ECOTEST LABORATORIES, INC.** *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.982932.02 07/29/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample, Disposal Sample, 1410

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | 1.1 | |
| Barium as Ba | mg/Kg | 15 | |
| Cadmium as Cd | mg/Kg | 19 | |
| Chromium as Cr | mg/Kg | 7.9 | |
| Lead as Pb | mg/Kg | 18 | |
| Mercury as Hg | mg/Kg | 0.038 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | <0.05 | |
| % Solids | | 94 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS:

DIRECTOR

rn= 17113 NYSDOH ID# 10320

**ECOTEST LABORATORIES, INC.** *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.982932.02 07/29/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample, Disposal Sample, 1410

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <200 | |
| #2 Fuel Oil | ug/Kg | 670 * | |
| #4 Fuel Oil | ug/Kg | <200 | |
| #6 Fuel Oil | ug/Kg | <200 | |
| Lubricating Oil | ug/Kg | 75000* | |
| Mineral Spirits | ug/Kg | <200 | |
| JP4 | ug/Kg | <200 | |
| JP5 | ug/Kg | <200 | |
| Jet A | ug/Kg | <200 | |
| Kerosene | ug/Kg | <200 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Diesel Range Organics.
Analyses performed by Modified 8015 Method.

*GC analysis indicates sample contains a mixture of Lubricating Oil and #2 Fuel Oil or Diesel.
Quality of match for #2 Fuel Oil = Good, for Lube = Good.

DIRECTOR

rn= 17114 NYSDOH ID# 10320

**ECOTEST LABORATORIES, INC.** *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.982932.02 07/29/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

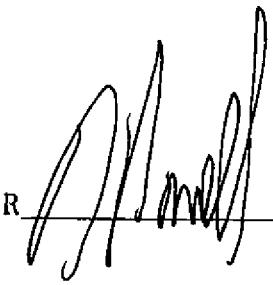
SAMPLE: Soil sample, Disposal Sample, 1410

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Dichlordifluomethane | ug/Kg | <5 |
| Chloromethane | ug/Kg | <5 |
| Vinyl Chloride | ug/Kg | <5 |
| Bromomethane | ug/Kg | <5 |
| Chloroethane | ug/Kg | <5 |
| Trichlorofluomethane | ug/Kg | <5 |
| 1,1 Dichloroethene | ug/Kg | <5 |
| Methylene Chloride | ug/Kg | <5 |
| t-1,2-Dichloroethene | ug/Kg | <5 |
| 1,1 Dichloroethane | ug/Kg | 6 |
| 2,2-Dichloropropane | ug/Kg | <5 |
| c-1,2-Dichloroethene | ug/Kg | <5 |
| Bromochloromethane | ug/Kg | <5 |
| Chloroform | ug/Kg | <5 |
| 111 Trichloroethane | ug/Kg | 39 |
| Carbon Tetrachloride | ug/Kg | <5 |
| 1,1-Dichloropropene | ug/Kg | <5 |
| Benzene | ug/Kg | <5 |
| 1,2 Dichloroethane | ug/Kg | <5 |
| Trichloroethylene | ug/Kg | <5 |
| 1,2 Dichloropropane | ug/Kg | <5 |
| Dibromomethane | ug/Kg | <5 |
| Bromodichloromethane | ug/Kg | <5 |
| c-1,3Dichloropropene | ug/Kg | <5 |
| Toluene | ug/Kg | 6 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| t-1,3Dichloropropene | ug/Kg | <5 |
| 112 Trichloroethane | ug/Kg | <5 |
| Tetrachloroethene | ug/Kg | 780 |
| 1,3-Dichloropropane | ug/Kg | <5 |
| Chlorodibromomethane | ug/Kg | <5 |
| 1,2 Dibromoethane | ug/Kg | <5 |
| Chlorobenzene | ug/Kg | <5 |
| Ethyl Benzene | ug/Kg | <5 |
| 1112Tetrachloroethan | ug/Kg | <5 |
| m + p Xylene | ug/Kg | 14 |
| o Xylene | ug/Kg | <5 |
| Styrene | ug/Kg | <5 |
| Bromoform | ug/Kg | <5 |
| Isopropylbenzene | ug/Kg | <5 |
| Bromobenzene | ug/Kg | <5 |
| 1122Tetrachloroethan | ug/Kg | <5 |
| 123-Trichloropropane | ug/Kg | <5 |
| n-Propylbenzene | ug/Kg | <5 |
| 2-Chlorotoluene | ug/Kg | <5 |
| 135-Trimethylbenzene | ug/Kg | <5 |
| 4-Chlorotoluene | ug/Kg | <5 |
| tert-Butylbenzene | ug/Kg | <5 |
| 124-Trimethylbenzene | ug/Kg | <5 |
| sec-Butylbenzene | ug/Kg | <5 |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR 

rn= 17115 NYSDOH ID# 10320

**ECOTEST LABORATORIES, INC.** *ENVIRONMENTAL TESTING*

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (516) 422-5777 • FAX (516) 422-5770

LAB NO.982932.02 07/29/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Robert Holzmacher

SOURCE OF SAMPLE: Sulzer Metco, SUL 9801
COLLECTED BY: Client DATE COL'D:07/23/98 RECEIVED:07/23/98

SAMPLE: Soil sample, Disposal Sample, 1410

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| p-Isopropyltoluene | ug/Kg | <5 | |
| 1,3 Dichlorobenzene | ug/Kg | <5 | |
| 1,4 Dichlorobenzene | ug/Kg | <5 | |
| n-Butylbenzene | ug/Kg | <5 | |
| 1,2 Dichlorobenzene | ug/Kg | <5 | |
| Dibromochloropropane | ug/Kg | <5 | |
| 124-Trichlorobenzene | ug/Kg | <5 | |
| Hexachlorobutadiene | ug/Kg | <5 | |
| Naphthalene | ug/Kg | <5 | |
| 123-Trichlorobenzene | ug/Kg | <5 | |
| ter.ButylMethylEther | ug/Kg | <5 | |
| p-Ethyltoluene | ug/Kg | <5 | |
| Freon 113 | ug/Kg | <5 | |
| 1245 Tetramethylbenz | ug/Kg! | <5 | |
| Acetone | ug/Kg | <50 | |
| Methyl Ethyl Ketone | ug/Kg | <50 | |
| Methylisobutylketone | ug/Kg | <50 | |
| Chlorodifluoromethan | ug/Kg | <5 | |
| p Diethylbenzene | ug/Kg | <5 | |

cc:Michael Lydon (Sulzer Metco)

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
!1245 Tetramethylbenz = 1,2,4,5-Tetramethylbenzene
Page 2 of 2.

DIRECTOR

rn= 17116 NYSDOH ID# 10320 P2SU1202669

State of New Jersey
Department of Environmental Protection
Hazardous Waste Regulation Program
Manifest Section
CN 421, Trenton, NJ 08625-0421

8 9 5 3 0 4 9

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-97

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No. N Y D 1 3 1 3 1 8 6 5 1 | Manifest Document No. 8 9 5 3 0 4 9 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Sulzer Metco, 1101 Prospect Avenue, Westbury, NY 11590

A. State Manifest Document Number: NJA 2953049

B. State Generator's ID (See Site Address):

4. Generator's Phone ( 516 ) 338-2337

C. State Trans. ID-NJDEP: [illegible] Decal No.: [illegible]

5. Transporter 1 Company Name: Trade Winds Environmental, Inc. | 6. US EPA ID Number: N Y 0 0 0 0 9 3 8 3 8 5

D. Transporter's Phone ( 516 ) 739-4000

7. Transporter 2 Company Name: FREEHOLD CARTAGE INC. | 8. US EPA ID Number: N J D 0 5 4 1 2 6 1 6 4

E. State Trans. ID-NJDEP: [illegible] Decal No.: [illegible]

9. Designated Facility Name and Site Address: E.I. du Pont de Nemours & Co., Inc., Chambers Works - Route 130, Deepwater, NJ 08023 | 10. US EPA ID Number: N J D 0 0 2 3 8 5 7 3 0

F. Transporter's Phone ( 732 ) [illegible]

G. State Facility's ID:

H. Facility's Phone ( 609 ) 540-2773

| 11. US DOT Description (Including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|
| a. RQ, Hazardous Waste Liquids, N.O.S., (Lead)(D002) 9, NA3082, PG III | X | | X X | 01785 | G | D 0 0 8 |
| b. | | | | | | |
| c. | | | | | | |
| d. | | | | | | |

J. Additional Descriptions for Materials Listed Above

a. Lead

b.

c.

d.

K. Handling Codes for Wastes Listed Above

a. c.

b. d.

15. Special Handling Instructions and Additional Information: Emergency Contact: Trade Winds 516-739-4000

CM4052
Release# 032 NY-SA-113 Lic Plate # T491SM-NJ

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Michael S. Lynn | [signature] | 07 | 23 | 98 |

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| David Smith | [signature] | 07 | 23 | 98 |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| David Smith | [signature] | 07 | 23 | 98 |

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

| Printed/Typed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| | | | | |

NJA2953049

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

6—GENERATOR MAIL TO- TSD'S STATE

P2SUL002670

# SULZER METCO ANALYTICAL LABORATORY
## ANALYSIS REPORT

Sample: Settling Tank Sludge Lot# Log# 24047

Submitted by: M. Lydon Date: 7/10/98

Analyst: Staff

| | | |
|---|---|---|
| Ag | Ga | Pt |
| Al 3.05 | Ge | S <0.01 |
| As | Hf 0.04 | Sb |
| Au | I | Sc <0.01 |
| B 0.04 | In | Se |
| Ba | K | Si 0.64 |
| Be | La <0.01 | Sn 0.93 |
| Bi | Li | Sr <0.001 |
| Br | Mg 0.04 | Ta |
| Total C 2.28 | Mn 0.05 | Te |
| Ca 0.08 | Mo 0.13 | Ti 0.26 |
| Cd | N | Tl |
| Ce 0.01 | Na 0.01 | Th |
| Cl | Nb | U <0.001 |
| Co 0.34 | Nd | V 0.01 |
| Cr 0.66 | Ni 4.01 | W 2.76 |
| Cs | O | $Y_2O_3$ 0.03 |
| Cu 1.41 | P 0.08 | Zn |
| F | Pb | Zr 1.11 |
| Fe (Bal) 28.14 | Pd | |

Does Does Not Conform to Spec

TGA Wt Loss: % Water 52.3 % % @ °C

organic solids 0.6 % % @ °C

% @ °C

Total %

Test Methods Used: ICP, TGA, Combustion

Comments:

MILLER ENVIRONMENTAL GROUP INC.

538 Edwards Ave. - PO Box 610.
Calverton, NY 11933
Phone (516)369-4900 Fax (516)369-4909

# Fax

**To:** MIKE LYDON **Date:** 7/30/98

**Company:** SULZER METCO **Pages:** 1

**Fax:** 338-2336 **From:** BILL FISHER

**Re:** ROLL-OFF RENTAL + DISPOSAL

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:**

| | |
|---|---|
| ROLL OFF DROP | $450 |
| ROLL-OFF LINER | $85 |
| DAILY RENTAL 7/23 - 7/30/98 | NO CHARGE |
| TRANSPORT + DISPOSE 35 yds × $235/40 | $8225 |
| TOTAL | $8760 |

APPLICABLE SALES TAX ADDITIONAL

Prospect Avenue Facility 1998 Hazardous Wate Generation
EPA # 131318651

| Date | Manifest # | Shipping Name | Profile # | Quantity | Units | ɔecific Grav | Lb. | Tons | Treatment |
|---|---|---|---|---|---|---|---|---|---|
| 1/14/98 | NYG0395451 | Waste Paint Related Material (Butyl Accetate, Ethyl Alcohol) 3UN | 3375-10 | 55 | G | 0.87 | 398.59 | 0.19 | B |
| 1/14/98 | NYG0395451 | Waste Petroleum Distillants 3UN1268 III | 3375-9 | 55 | G | 0.85 | 389.42 | 0.19 | B |
| 1/14/98 | NYG0360234 | Waste Corrosive Liquid NOS (Hydrochloric, Nitric Acid) 8UN1760 | 3375-O | 243 | LB | 1 | 243 | 1.21 | T |
| 1/14/98 | NYG0360234 | Waste Acetone 3UN1090 II | 3375-U | 55 | G | 0.78 | 357.35 | 0.17 | B |
| 1/14/98 | NYG0360234 | Waste Kerosene 3UN 1223 III | 3375-S | 55 | G | 0.85 | 389.42 | 0.19 | B |
| 2/5/98 | NYC4921255 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 9 | G | 1 | 74.97 | 0.03 | R |
| 2/5/98 | NYC4921266 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 5 | G | 1 | 41.65 | 0.02 | R |
| 2/5/98 | NYC4921266 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 10 | G | 1 | 83.3 | 0.04 | R |
| 2/25/98 | NYG0358128 | Waste Paint Related Material (Isopropyl Alcohol, Ethanol) 3UN12 | 3375-AA | 55 | G | 1 | 458.15 | 0.22 | B |
| 2/25/98 | NYG0358128 | Waste Paint Related Material 3UN1263 II | 3375-L | 55 | G | 0.86 | 394 | 0.19 | B |
| 4/1/98 | NYC4992906 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 5 | G | 1 | 41.7 | 0.02 | R |
| 4/1/98 | NYC4992906 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 9 | G | 1 | 74.97 | 0.03 | R |
| 4/1/98 | NYC4992895 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 8 | G | 1 | 66.72 | 0.03 | R |
| 5/6/98 | NYG0731907 | Waste Corrosive Liquid NOS Hydroflouric, Nitric, etc. | 3375-O | 20 | G | 1 | 166.8 | 0.08 | T |
| 5/28/98 | NYC5264515 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 9 | G | 1 | 74.97 | 0.03 | R |
| 5/28/98 | NYC5264515 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 5 | G | 1 | 41.65 | 0.02 | R |
| 5/28/98 | NYC5264504 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 9 | G | 1 | 74.97 | 0.03 | R |
| 7/23/98 | NYC5320517 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 9 | G | 1 | 75 | 0.03 | R |
| 7/23/98 | NYC5320528 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 5 | G | 1 | 41 | 0.02 | R |
| 7/23/98 | NYC5320528 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 9 | G | 1 | 75 | 0.19 | R |
| 7/23/98 | NJA2953049 | RQ, Hazardous Waste Liquid NOS (Lead) 9,NA3082, PGIII | NA | 1785 | G | 1 | 14886 | 7.44 | T |
| 7/23/98 | MI7018245 | RQ, Hazardous Waste Solid NOS (Lead) 9,NA3082, PGIII | NA | 2400 | P | NA | 2400 | 1.2 | L |
| 7/3/98 | MI7018245 | RQ Hazardous Waste Liquids, NOS (1,1,1 Trichloroethane, Lead) | NA | 16200 | P | 1 | 200.16 | 0.1 | T |
| 9/14/98 | NYC5388208 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 5 | G | 1 | 41 | 0.02 | R |
| 9/14/98 | NYC5388208 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 8 | G | 1 | 66 | 0.03 | R |
| 9/14/98 | NYC5388197 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 8 | G | 1 | 66 | 0.03 | R |
| 11/9/98 | NYG1402596 | Waste paint related material 3 UN1263 PG II | 3375-Z | 55 | G | 1 | 458.7 | 0.22 | B |
| 11/13/98 | NYC5445832 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 9 | G | 1 | 75 | 0.03 | R |
| 11/13/98 | NYC5445843 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 5 | G | 1 | 41 | 0.02 | R |
| 11/13/98 | NYC5445843 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 9 | G | 1 | 75 | 0.19 | R |

Duffy Avenue Facility 1998 Hazardous Wate Summary
EPA # NYD057731663

| Date | Manifest # | Shipping Name | Profile # | Quantity | Units | ɔecific Grav | Lb. | Tons | Treatment |
|---|---|---|---|---|---|---|---|---|---|
| 1/21/98 | NYC4963691 | Waste Combustible Liquid NOS (Petroleum Naptha) NA 1993 PG | NA | 40 | G | 1 | 333.2 | 0.16 | R |

# Notification and Certification Form

DuPont Environmental Treatment

OW/DW No. 4052
Release No. _____
(please fill in)

## Chambers Works Wastewater Treatment Facility
## Land Disposal Restrictions

1. Generator's EPA ID No. NYD 131318651
Generator Sulzer Metco
Generator's Address 1101 Prospect Ave
Westbury, CT 11590

Hazardous Waste Manifest No. NJA 2953049
Manifest Page No./Line Letter 11A
(for drummed aqueous waste only)

Note: The DuPont Chambers Works Wastewater Treatment Plant (WWTP) is regulated under the Clean Water Act.

2. Is this waste subject to the Land Disposal Restrictions set forth in 40 CFR 268? [X] Yes [ ] No
If no, check reason: [ ] Nonhazardous [ ] Newly identified or newly listed (write waste codes in Table B on page 2)

3. In Table A, check (if applicable) the characteristic U.S. EPA hazardous waste codes that apply to this waste. For each waste code checked, identify whether the waste is a wastewater or nonwastewater, and indicate how the waste must be managed based on the options found on page 2.

TABLE A

| Check Waste Code | U.S. EPA Hazardous Waste Code | Subcategory | Waste-water | Non-waste-water | How must the waste be managed? |
|---|---|---|---|---|---|
| | | | (Check only one) | | (Enter the letter from page 2) |
| ___ | D001 | Low TOC (<10% TOC) | ___ | ___ | ___ |
| ___ | D001 | High TOC (≥ 10% TOC) | NA | ___ | ___ |
| ___ | D001 | Oxidizer | ___ | ___ | ___ |
| ___ | D002 | Acid (pH ≤ 2) | ___ | ___ | ___ |
| ___ | D002 | Alkaline (pH ≥ 12.5) | ___ | ___ | ___ |
| ___ | D002 | Other corrosives | ___ | ___ | ___ |
| ___ | D003 | Reactive sulfides | ___ | ___ | ___ |
| ___ | D003 | Reactive cyanides | ___ | ___ | ___ |
| ___ | D003 | Water reactive | ___ | ___ | ___ |
| ___ | D003 | Explosives (pretreated) | ___ | ___ | ___ |
| ___ | D003 | Other reactives | ___ | ___ | ___ |
| ___ | D004 | Arsenic | ___ | ___ | ___ |
| ___ | D005 | Barium | ___ | ___ | ___ |
| ___ | D006 | Cadmium | ___ | ___ | ___ |
| ___ | D007 | Chromium | ___ | ___ | ___ |
| ✓ | D008 | Lead | ___ | ✓ | A |
| ___ | D009 | Mercury | ___ | NA | ___ |
| ___ | D009 | Low Mercury <260 mg/kg Hg | NA | ___ | ___ |
| ___ | D010 | Selenium | ___ | ___ | ___ |
| ___ | D011 | Silver | ___ | ___ | ___ |

Rev. 1
H-48142 (12/94)
Page 1

## Chambers Works Wastewater Treatment Facility
## Land Disposal Restrictions
## (cont.)

4. In Table B, identify all additional characteristic, listed, newly identified, and newly listed U.S. EPA hazardous waste codes that apply to this waste. For each waste code, identify the subcategory, indicate whether the waste is a wastewater or nonwastewater, and indicate how the waste must be managed, based on the options below.

TABLE B

| U.S. EPA HAZARDOUS WASTE CODE(S) Per 40 CFR 261 | SUBCATEGORY | | Wastewater | Nonwastewater | HOW MUST THE WASTE BE MANAGED? |
|---|---|---|---|---|---|
| | Description | None | (Check only one) | | Enter the letter from options below* |
| D008 | | ✓ | | ✓ | A |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*(Use Attachment I if more room is needed to list all applicable waste codes)*

5. Is waste analysis information attached? ☐ Yes ☐ Not available

6. If this waste is subject to the California List Restrictions [40 CFR 268.32; RCRA Section 3004(d)], check which of the following apply:

☐ Nickel ≥ 134 mg/l ☐ Thallium ≥ 130 mg/l ☐ HOCs** ≥ 1000 mg/l ☐ Cyanides ≥ 1000 mg/l

**Halogenated Organic Compounds [40 CFR 268 Appendix III]

7. If this waste is a spent solvent (F001-F005), include Attachment II, Treatment Standards for F001-F005 Spent Solvents.

8. If this waste is a multisource leachate (F039), include Attachment III, Treatment Standards for F039 Multisource Leachate Wastes.

***HOW MUST THE WASTE BE MANAGED?** (Choose from the following options to complete Tables A and B.)

A. Restricted waste requires treatment.

B. Restricted waste meets applicable treatment standards.

GENERATOR'S CERTIFICATION [40 CFR 268.7(a)(2)(ii)]
I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d). I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibilty of a fine and imprisonment.

C. Waste is newly listed or newly identified. (Note: This includes D018-D043 treated at the WWTP.)

D. Restricted waste is exempt from the Land Disposal Restrictions. Check the reason below and write in the date the waste is subject to prohibitions.

☐ The waste has been granted a Site-Specific Variance. _____
☐ The waste has been given a Case-by-Case Extension. _____
☐ The waste is subject to a National Capacity Variance. _____

E. Restricted waste has been treated to remove the hazardous characteristic D001, D002, and/or D012-D043 and requires treatment of underlying hazardous constituents.

CHARACTERISTIC WASTE - UNDERLYING HAZARDOUS CONSTITUENTS [40 CFR 268.7(b)(5)(iv)]
I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

CERTIFICATION

I certify that, to the best of my knowledge, the information provided in this document is true, accurate, and complete.

Authorized Signature _____ Title _____ Date _____



DUPONT

Attachment I

DuPont Environmental Treatment

Identify all additional characteristic, listed, newly identified, and newly listed U.S. EPA hazardous waste codes that apply. For each waste code, identify the subcategory, indicate whether the waste is a wastewater or nonwastewater, and indicate how the waste must be managed, based on the options found on page 2.

(continued from Table B)

| U.S. EPA HAZARDOUS WASTE CODE(S) Per 40 CFR 261 | SUBCATEGORY | | Wastewater | Nonwastewater | HOW MUST THE WASTE BE MANAGED? |
|---|---|---|---|---|---|
| | | | (Check only one) | | Enter the letter from page 2* |
| | Description | None | | | |
| | | | | | |
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**Attachment II**

DuPont Environmental Treatment

## Treatment Standards for F001-F005 Spent Solvents

Instructions: Mark the box beside the appropriate code(s) included in the shipment. Mark the individual constituents present in the waste.*

*Optional for wastes treated at the DuPont Chambers Works Wastewater Treatment Plant (WWTP). The WWTP monitors all F001-F005 regulated constituents in its treatment residues.

| | Hazardous Waste Description | Constituents of Concern | Wastewater Total Composition (mg/l) | Nonwastewater Total Composition (mg/kg) |
|---|---|---|---|---|
| ☐ | F001-F005 Solvent Wastes (Contains any combination of one or more of these spent solvents) | __ Acetone | 0.28 | 160 |
| | | __ Benzene | 0.14 | 10 |
| | | __ n-Butyl alcohol | 5.6 | 2.6 |
| | | __ Carbon disulfide | 3.8 | 4.8 mg/l [TCLP] |
| | | __ Carbon tetrachloride | 0.057 | 6.0 |
| | | __ Chlorobenzene | 0.057 | 6.0 |
| | | __ o-Cresol | 0.11 | 5.6 |
| | | __ m-Cresol | 0.77 | 5.6 |
| | | __ p-Cresol | 0.77 | 5.6 |
| | | __ Cresols-mixed isomers (Cresylic acid) | 0.88 | 11.2 |
| | | __ Cyclohexanone | 0.36 | 0.75 mg/l [TCLP] |
| | | __ o-Dichlorobenzene | 0.088 | 6.0 |
| | | __ Ethyl acetate | 0.34 | 33 |
| | | __ Ethyl benzene | 0.057 | 10 |
| | | __ Ethyl ether | 0.12 | 160 |
| | | __ Isobutanol | 5.6 | 170 |
| | | __ Methanol | 5.6 | 0.75 mg/l [TCLP] |
| | | __ Methylene chloride | 0.089 | 30 |
| | | __ Methyl ethyl ketone | 0.28 | 36 |
| | | __ Methyl isobutyl ketone | 0.14 | 33 |
| | | __ Nitrobenzene | 0.068 | 14 |
| | | __ Pyridine | 0.014 | 16 |
| | | __ Tetrachloroethylene | 0.056 | 6.0 |
| | | __ Toluene | 0.080 | 10 |
| | | __ 1,1,1-Trichloroethane | 0.054 | 6.0 |
| | | __ 1,1,2-Trichloroethane | 0.054 | 6.0 |
| | | __ 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.057 | 30 |
| | | __ Trichloroethylene | 0.054 | 6.0 |
| | | __ Trichloromonofluoromethane | 0.020 | 30 |
| | | __ Xylenes-mixed isomers | 0.32 | 30 |
| ☐ | F005 Solvent Wastes (Contains only one of these as sole F001-F005 solvent) | __ 2-Nitropropane | (WETOX or CHOXD)[fb] CARBN; or INCIN | INCIN |
| | | __ 2-Ethoxyethanol | BIODG; or INCIN | INCIN |

**Attachment III**

DuPont Environmental Treatment

## Treatment Standards for F039 Multisource Leachate Wastes

Instructions: Mark the constituents present in the waste.*

*Optional for wastes treated at the DuPont Wastewater Treatment Plant (WWTP). The WWTP monitors all F039 regulated constituents in its treatment residues.

| Constituents of Concern | Total Composition WW (mg/l) | Total Composition Non-WW (mg/kg) | Constituents of Concern | Total Composition WW (mg/l) | Total Composition Non-WW (mg/kg) |
|---|---|---|---|---|---|
| __Acenaphthylene | 0.059 | 3.4 | __2-Chloronaphthalene | 0.055 | 5.6 |
| __Acenaphthene | 0.059 | 3.4 | __2-Chlorophenol | 0.044 | 5.7 |
| __Acetone | 0.28 | 160 | __3-Chloropropylene | 0.036 | 30 |
| __Acetonitrile | 5.6 | NA | __Chrysene | 0.059 | 3.4 |
| __Acetophenone | 0.010 | 9.7 | __o-Cresol | 0.11 | 5.6 |
| __2-Acetylaminofluorene | 0.059 | 140 | __m-Cresol | 0.77 | 5.6 |
| __Acrolein | 0.29 | NA | __p-Cresol | 0.77 | 5.6 |
| __Acrylonitrile | 0.24 | 84 | __Cyclohexanone | 0.36 | NA |
| __Aldrin | 0.021 | 0.066 | __1,2-Dibromo-3-chloropropane | 0.11 | 15 |
| __4-Aminobiphenyl | 0.13 | NA | __Ethylene dibromide (1,2-Dibromoethane) | 0.028 | 15 |
| __Aniline | 0.81 | 14 | __Dibromomethane | 0.11 | 15 |
| __Anthracene | 0.059 | 3.4 | __2,4-D (2,4-Dichlorophenoxyacetic acid) | 0.72 | 10 |
| __Aramite | 0.36 | NA | __o,p'-DDD | 0.023 | 0.087 |
| __alpha-BHC | 0.00014 | 0.066 | __p,p'-DDD | 0.023 | 0.087 |
| __beta-BHC | 0.00014 | 0.066 | __o,p'-DDE | 0.031 | 0.087 |
| __delta-BHC | 0.023 | 0.066 | __p,p'-DDE | 0.031 | 0.087 |
| __gamma-BHC | 0.0017 | 0.066 | __o,p'-DDT | 0.0039 | 0.087 |
| __Benzene | 0.14 | 10 | __p,p'-DDT | 0.0039 | 0.087 |
| __Benz(a)anthracene | 0.059 | 3.4 | __Dibenz(a,h) anthracene | 0.055 | 8.2 |
| __Benzo(b)-fluoranthene | 0.11 | 6.8 | __Dibenzo(a,e) pyrene | 0.061 | NA |
| __Benzo(k)-fluoranthene | 0.11 | 6.8 | __m-Dichlorobenzene | 0.036 | 6.0 |
| __Benzo(g,h,i)-perylene | 0.0055 | 1.8 | __o-Dichlorobenzene | 0.088 | 6.0 |
| __Benzo(a)pyrene | 0.061 | 3.4 | __p-Dichlorobenzene | 0.090 | 6.0 |
| __Bromodichloromethane | 0.35 | 15 | __Dichlorodifluoromethane | 0.23 | 7.2 |
| __Methyl bromide (Bromomethane) | 0.11 | 15 | __1,1-Dichloroethane | 0.059 | 6.0 |
| __4-Bromophenyl phenyl ether | 0.055 | 15 | __1,2-Dichloroethane | 0.21 | 6.0 |
| __n-Butyl alcohol | 5.6 | 2.6 | __1,1-Dichloroethylene | 0.025 | 6.0 |
| __Butyl benzyl phthalate | 0.017 | 28 | __trans-1,2-Dichloroethylene | 0.054 | 30 |
| __2-sec-Butyl-4,6-dinitrophenol | 0.066 | 2.5 | __2,4-Dichlorophenol | 0.044 | 14 |
| __Carbon disulfide | 3.8 | NA | __2,6-Dichlorophenol | 0.044 | 14 |
| __Carbon tetrachloride | 0.057 | 6.0 | __1,2-Dichloropropane | 0.85 | 18 |
| __Chlordane (alpha & gamma isomers) | 0.0033 | 0.26 | __cis-1,3-Dichloropropene | 0.036 | 18 |
| __p-Chloroaniline | 0.46 | 16 | __trans-1,3-Dichloropropene | 0.036 | 18 |
| __Chlorobenzene | 0.057 | 6.0 | __Dieldrin | 0.017 | 0.13 |
| __Chlorobenzilate | 0.10 | NA | __Diethyl phthalate | 0.20 | 28 |
| __2-Chloro-1,3-butadiene | 0.057 | NA | __2,4-Dimethyl phenol | 0.036 | 14 |
| __Chlorodibromomethane | 0.057 | 15 | __Dimethyl phthalate | 0.047 | 28 |
| __Chloroethane | 0.27 | 6.0 | __Di-n-butyl phthalate | 0.057 | 28 |
| __bis(2-Chloroethoxy) methane | 0.036 | 7.2 | __1,4-Dinitrobenzene | 0.32 | 2.3 |
| __bis(2-Chloroethyl) ether | 0.033 | 6.0 | __4,6-Dinitro-o-cresol | 0.28 | 160 |
| __Chloroform | 0.046 | 6.0 | __2,4-Dinitrophenol | 0.12 | 160 |
| __bis(2-Chloroisopropyl) ether | 0.055 | 7.2 | __2,4-Dinitrotoluene | 0.32 | 140 |
| __p-Chloro-m-cresol | 0.018 | 14 | __2,6-Dinitrotoluene | 0.55 | 28 |
| __Chloromethane (Methyl chloride) | 0.19 | 30 | __Di-n-octyl phthalate | 0.017 | 28 |
| __Di-n-propylnitrosamine | 0.40 | 14 | __Nitrobenzene | 0.068 | 14 |
| __1,4-Dioxane | NA | 170 | __5-Nitro-o-toluidine | 0.32 | 28 |
| __Diphenylamine | 0.92 | NA | __p-Nitrophenol | 0.12 | 29 |
| __Diphenyl nitrosamine | 0.92 | NA | __N-Nitrosodiethylamine | 0.40 | 28 |
| __1,2-Diphenylhydrazine | 0.087 | NA | __N-Nitrosodimethylamine | 0.40 | NA |
| __Disulfoton | 0.017 | 6.2 | __N-Nitroso-di-n-butylamine | 0.40 | 17 |
| __Endosulfan I | 0.023 | 0.066 | __N-Nitrosomethylethylamine | 0.40 | 2.3 |

## Treatment Standards for F039 Multisource Leachate Wastes

| Constituents of Concern | Total Composition WW (mg/l) | Total Composition Non-WW (mg/kg) |
|---|---|---|
| Endosulfan II | 0.029 | 0.13 |
| Endosulfan sulfate | 0.029 | 0.13 |
| Endrin | 0.0028 | 0.13 |
| Endrin aldehyde | 0.025 | 0.13 |
| Ethyl acetate | 0.34 | 33 |
| Ethyl cyanide (Propanenitrile) | 0.24 | 360 |
| Ethyl benzene | 0.057 | 10 |
| Ethyl ether | 0.12 | 160 |
| bis(2-Ethylhexyl) phthalate | 0.28 | 28 |
| Ethyl methacrylate | 0.14 | 160 |
| Ethylene oxide | 0.12 | NA |
| Famphur | 0.017 | 15 |
| Fluoranthene | 0.068 | 3.4 |
| Fluorene | 0.059 | 3.4 |
| Heptachlor | 0.0012 | 0.066 |
| Heptachlor epoxide | 0.016 | 0.066 |
| Hexachlorobenzene | 0.055 | 10 |
| Hexachlorocyclopentadiene | 0.057 | 2.4 |
| HxCDDs (Hexachlorodibenzo-p-dioxins) | 0.000063 | 0.001 |
| HxCDFs (Hexachlorodibenzofurans) | 0.000063 | 0.001 |
| Hexachloroethane | 0.055 | 30 |
| Hexachloropropylene | 0.035 | 30 |
| Indeno(1,2,3-c,d)pyrene | 0.0055 | 3.4 |
| Iodomethane | 0.19 | 65 |
| Isobutanol | 5.6 | 170 |
| Isodrin | 0.021 | 0.066 |
| Isosafrole | 0.081 | 2.6 |
| Kepone | 0.0011 | 0.13 |
| Methacrylonitrile | 0.24 | 84 |
| Methanol | 5.6 | NA |
| Methapyrilene | 0.081 | 1.5 |
| Methoxychlor | 0.25 | 0.18 |
| 3-Methylcholanthrene | 0.0055 | 15 |
| 4,4-Methylene-bis(2-chloroaniline) | 0.50 | 30 |
| Methylene chloride | 0.089 | 30 |
| Methyl ethyl ketone | 0.28 | 36 |
| Methyl isobutyl ketone | 0.14 | 33 |
| Methyl methacrylate | 0.14 | 160 |
| Methyl methanesulfonate | 0.018 | NA |
| Methyl parathion | 0.014 | 4.6 |
| Naphthalene | 0.059 | 5.6 |
| 2-Naphthylamine | 0.52 | NA |
| p-Nitroaniline | 0.028 | 28 |
| N-Nitrosomorpholine | 0.40 | 2.9 |
| N-Nitrosopiperidine | 0.013 | 35 |
| N-Nitrosopyrrolidine | 0.013 | 35 |
| Parathion | 0.014 | 4.6 |
| Total PCBs (sum of all PCB isomers) | 0.10 | 10 |
| Pentachlorobenzene | 0.055 | 10 |
| PeCDDs (Pentachlorodibenzofurans) | 0.000063 | 0.001 |
| PeCDFs (Pentachlorodibenzo-p-dioxins) | 0.000035 | 0.001 |
| Pentachloronitrobenzene | 0.055 | 4.8 |
| Pentachlorophenol | 0.089 | 7.4 |
| Phenacetin | 0.081 | 16 |
| Phenanthrene | 0.059 | 5.6 |
| Phenol | 0.039 | 6.2 |
| Pheorate | 0.021 | 4.6 |
| Phthalic anhydride | 0.055 | NA |
| Pronamide | 0.093 | 1.5 |
| Pyrene | 0.067 | 8.2 |
| Safrole | 0.081 | 22 |
| Silvex (2,4,5-TP) | 0.72 | 7.9 |
| 2,4,5-T | 0.72 | 7.9 |
| 1,2,4,5-Tetrachlorobenzene | 0.055 | 14 |
| TCDDs (Tetrachlorodibenzo-furans) | 0.000063 | 0.001 |
| TCDFs (Tetrachlorodibenzo-p-dioxins) | 0.000063 | 0.001 |
| 1,1,1,2-Tetrachloroethane | 0.057 | 6.0 |
| 1,1,2,2-Tetrachloroethane | 0.057 | 6.0 |
| Tetrachloroethylene | 0.056 | 6.0 |
| 2,3,4,6-Tetrachlorophenol | 0.030 | 7.4 |
| Toluene | 0.080 | 10 |
| Toxaphene | 0.0095 | 2.6 |
| Bromoform (Tribromomethane) | 0.63 | 15 |
| 1,2,4-Trichlorobenzene | 0.055 | 19 |
| 1,1,1-Trichloroethane | 0.054 | 6.0 |
| 1,1,2-Trichloroethane | 0.054 | 6.0 |
| Trichloroethylene | 0.054 | 6.0 |
| Trichloromonofluoromethane | 0.020 | 30 |
| 2,4,5-Trichlorophenol | 0.18 | 7.4 |
| 2,4,6-Trichlorophenol | 0.035 | 7.4 |
| 1,2,3-Trichloropropane | 0.85 | 30 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.057 | 30 |
| tris(2,3-dibromopropyl) phosphate | 0.11 | NA |
| Vinyl chloride | 0.27 | 6.0 |
| Xylene(s) (sum of mixed isomers) | 0.32 | 30 |

| | | |
|---|---|---|
| Antimony | 1.9 | 2.1 mg/l [TCLP] |
| Arsenic | 1.4 | 5.0 mg/l [TCLP] |
| Barium | 1.2 | 7.6 mg/l [TCLP] |
| Beryllium | 0.82 | NA |
| Cadmium | 0.69 | 0.19 mg/l [TCLP] |
| Chromium (Total) | 2.77 | 0.86 mg/l [TCLP] |
| Cyanides (Total) | 1.2 | 590 |
| Cyanides (Amenable) | 0.86 | NA |
| Fluoride | 35 | NA |
| Lead | 0.69 | 0.37 mg/l [TCLP] |
| Mercury | 0.15 | 0.025 mg/l [TCLP] |
| Nickel | 3.98 | 5.0 mg/l [TCLP] |
| Selenium | 0.82 | 0.16 mg/l [TCLP] |
| Silver | 0.43 | 0.30 mg/l [TCLP] |
| Sulfide | 14 | NA |
| Thallium | 1.4 | NA |
| Vanadium | 4.3 | NA |

# MILLER ENVIRONMENTAL GROUP INC.

516-369-4900 | P.O. Box 610, Calverton, NY 11933 | FAX 516-369-4909

Invoice # 046029

Page # 1

August 3, 1998

Sulzer Metco
1101 Prospect Ave
P.O. Box 1006
Westbury, NY 11590

Customer # 11206

| Description | Quantity/ Unit | Unit Price | Amount |
|---|---|---|---|
| RE: Spot rolloff container - Westbury | | | |
| 7/23/98 | | | |
| Nassau and Suffolk Spot/Pickup Charge | 1.00 SPOT | 450.00 | 450.00 |
| Trailer Liner | 1.00 EA | 85.00 | 85.00 |
| 7/30/98 | | | |
| Disposal | 35.00 YARD | 235.00 | 8225.00 |
| | | | 8760.00 |
| | | Sales Tax | 744.60 |
| | | Total | 9504.60 |

8 1/2% Sales tax

# MILLER ENVIRONMENTAL GROUP INC.

DATE 23 ~~7~~ JULY 98

P.O. # _____

## DAILY JOB REPORT

CUSTOMER SULZER METCO

Phone MIKE LYDON 334-1300

BILLING ADDRESS 1101 PROSPECT AVE, Po Box 1006, WESTBURY, NY 11590-0201

LOCATION OF WORK SAME

JOB DESCRIPTION SPOT ROLL-OFF CONTAINER

MATERIALS (1) LINER ROLL-OFF

SUBCONTRACTORS

EQUIPMENT

ROLL-OFF TRK # 42

NASSAU COUNTY SPOT CHARGE

ROLL-OFF BOX # 20-11

START RENTAL : 7/23

END RENTAL : 7/28/98

WORKER PROTECTION LEVEL –

| PERSONNEL | TOTAL HOURS | PERSONNEL | TOTAL HOURS |
|---|---|---|---|
| R. MINTON | | | |
| | | | |
| | | | |
| | | | |
| | | | |

DAILY OPERATIONS 1130 SECURED 14:30 SUBSISTENCE _____

DISPOSAL _____

BILL GRP. # _____

33614

APPROVED _____

CUSTOMER REPRESENTATIVE

**MILLER ENVIRONMENTAL GROUP INC.**

P.O. # _____

DATE 30 JULY 98 THURS

DAILY JOB REPORT

CUSTOMER SULZER METCO Phone MIKE LYDON 334-1300

BILLING ADDRESS 1101 PROSPECT AVE, PO BOX 1006 WESTBURY, NY

LOCATION OF WORK SAME

JOB DESCRIPTION TRANSPORT WASTE FOR DISPOSAL

| MATERIALS | | SUBCONTRACTORS | |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

EQUIPMENT

ROLL-OFF TRK # 17

(1) WORKER PROTECTION LEVEL - (0)

| PERSONNEL | TOTAL HOURS | PERSONNEL | TOTAL HOURS |
|---|---|---|---|
| H/T [signature] | | | |
| | | | |
| | | | |
| | | | |
| | | | |

DAILY OPERATIONS 0630 SECURED 14:30 SUBSISTENCE _____

DISPOSAL 35 YDS OIL DEBRIS SOLID TO CPC/PSC (CO# 10314)

BILL GRP. # _____

33613

APPROVED X [signature]

CUSTOMER REPRESENTATIVE

To PURCHASING DEPT.

Date 08-17-98

To be used for Environmental consultant

Date required

**SULZER METCO**

REQUEST FOR PURCHASE

| REQUISITION NUMBER |
|---|
| 26237 |

P.W. Grosser
630 Johnson Ave Suite 7
Bohemia, NY 11716-2618

PURCHASE ORDER NO

CONTACT

TEL NO 589-6353

| SHIP VIA | F.O.B. | TERMS | PROMISED DELIVERY DATE |
|---|---|---|---|
| | | | For billing only - Project completed - Jul, 2-31, 1998 |

GRAY AREAS FOR PURCHASING USE ONLY

| ITEM | QUANTITY | DESCRIPTION | TAX | PRICE |
|---|---|---|---|---|
| | | For professional Engineering Services rendered to provide technical support to close UIC issues for two exterior structures according to NCDH protocol. Tasks include coordination with NCDH, and ~~analysis~~ sample collection for Characterization and laboratory analysis. | | |
| | | Total cost $2,500.00 | | |

TOTAL

JGGESTED SOURCE OF SUPPLY:

| WORK ORDER NUMBER | CHARGE NUMBER | REQUESTED BY | APPROVED BY | APPROVED BY |
|---|---|---|---|---|
| | 847.00663 | M.S. Lydon 200010 | | |

BUYER

DELIVER TO:

PLANT Prospect Avenue
DEPT. Environment, Health & Safety
ATTN. Michael S. Lydon

PURCHASING
P2SUL002683

To PURCHASING DEPT.

Date 08-17-98

To be used for Environmental Consultant

Date required

**SULZER METCO**

## REQUEST FOR PURCHASE

| REQUISITION NUMBER |
|---|
| 26238 |

P.W. GROSSER
630 Johnson Ave, Suite 7
Bohemia, NY 11716-2618

PURCHASE ORDER NO

CONTACT

TEL NO 589-6353

| SHIP VIA | F.O.B. | TERMS | PROMISED DELIVERY DATE |
|---|---|---|---|
| | | | For Billing ONly Project Completed July 2-31, 1998 |

GRAY AREAS FOR PURCHASING USE ONLY

| ITEM | QUANTITY | DESCRIPTION | TAX | PRICE |
|---|---|---|---|---|
| | | For Professional Engineering Services rendered in support of remediation and demolition of two buried dry wells according to NCDH protocol. Tasks include, solicitation of contractor quotes for price and scheduled availability, Coordination with Environmental and waste disposal contractors, Coordination with NCDH to obtain timely site visits and Article XI registration, tank remediation endpoint and waste disposal characterization sample collection, laboratory analysis, Contractor observation, engineering review of soil bearing issues at the new building extension on site meetings, and review of endpoint results and research on cadmium background levels. | | |
| | | Total project cost $ 5,003 20/100 - | | |

TOTAL

SUGGESTED SOURCE OF SUPPLY:

| WORK ORDER NUMBER | CHARGE NUMBER | REQUESTED BY | APPROVED BY | APPROVED BY |
|---|---|---|---|---|
| | 847.00663 | M.S. Lydon | | |

Z0001D.

BUYER

DELIVER TO:

PLANT Prospect Avenue

DEPT. Environment, Health + Safety

ATTN. Michael S. Lydon

PURCHASING

Project costs so far. for TANK REMOVAL ~~Aug~~ July 1998

| Vendor | P.O. # | Request # | Cost. | Invoice # | Invoice date |
|---|---|---|---|---|---|
| Tradewinds | 302080 | 11770 | $16,329.63 | 3617 | 7-29-98 |
| Miller Environ. | 302699 | 11771 | $8760.00 | 046029 | 8-3-98 |
| P.W. Grasser | 302736 | 26237 | 2500 | SUL9801-01 | 7-31-98 |
| NCDOH | Check Request | Check Request | $50.00 | — | — |
| PW Grasser | 302735 | 26238 | 5008.20 | SUL9802-01 | 7-31-98 |
| PW Grasser | 302735 | 104735 | 450 | SUL9808 | 9-24-98 |
| Mike | | | | | |

As of 08-05-98 25139.63

As of 08-17-98 32642.83 Job complete.

++287.20

+ 450

33092.83

Mike Lyden time -

| | |
|---|---|
| 7-30-98 | 3 HRS |
| 7-22-98 | 9 HRS |
| 7-23-98 | 9 HRS. |
| 6-24-98 | 4 HRS. |
| 7-31-98 | 2 HRS |
| 7-28-98 | 2 HRS. |
| 8-5-98 | 4 HRS |

P.W. GROSSER CONSULTING
ENGINEER & HYDROGEOLOGIST, P.C.

KALOGERAS & GROSSER CONSULTING
ENGINEERS, P.C.

630 JOHNSON AVENUE SUITE 7
BOHEMIA, NEW YORK 11716-2618
PHONE: (516) 589-6353
FAX: (516) 589-8705
E-MAIL: pwgc-kg@worldnet.att.net

# FAX TRANSMITTAL

**SENT TO:** Mr. Michael Lydon

**CC:** Mr. Richard Rudolph 212/661-0533

**COMPANY:** Sulzer Metco

**SUBJECT:** NCDH response to Closure Report

**FAX #:** 516/338-2336

**NO. PAGES (not including cover sheet):** 1

**SENT BY:** Alison Walter

**DATE:** October 15, 1998

**COMMENTS:**

Please find the attached letter response from Mr. Bruce MacKay of the Nassau County Department of Health regarding the Closure Report. If you have any questions, please call.

Regards,
Alison

Note: This fax contains privileged and confidential information and is intended to be read only by the addressed party.

# MILLER ENVIRONMENTAL GROUP INC.

516-369-4900 | P.O. Box 610, Calverton, NY 11933 | FAX 516-369-4909

Invoice # 046029

Page # 1

August 3, 1998

Sulzer Metco
1101 Prospect Ave
P.O. Box 1006
Westbury, NY 11590

AUG 10 1998

Customer # 11206

| Description | Quantity/ Unit | Unit Price | Amount |
|---|---|---|---|
| RE: Spot rolloff container - Westbury | | | |
| 7/23/98 | | | |
| Nassau and Suffolk Spot/Pickup Charge | 1.00 SPOT | 450.00 | 450.00 |
| Trailer Liner | 1.00 EA | 85.00 | 85.00 |
| Rolloff Box rental 7/23-7/28/98 NO CHARGE | 6.00 DAY | | |
| 7/30/98 | | | |
| Disposal | 35.00 YARD | 235.00 | 8225.00 |
| | | | 8760.00 |
| | | Sales Tax | 744.60 |
| | | Total | 9504.60 |

8 1/2% Sales tax

MILLER ENVIRONMENTAL GROUP INC.

P.O. # _____

DATE 30 JULY 98 THURS

DAILY JOB REPORT

CUSTOMER SULZER METCO Phone MIKE LYDON 334-1300

BILLING ADDRESS 1101 PROSPECT AVE PO BOX 1006 WESTBURY, NY

LOCATION OF WORK SAME

JOB DESCRIPTION TRANSPORT WASTE FOR DISPOSAL

| MATERIALS | | | SUBCONTRACTORS |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

EQUIPMENT

ROLL-OFF TRK # 17

(1) WORKER PROTECTION LEVEL - (0)

| PERSONNEL | TOTAL HOURS | PERSONNEL | TOTAL HOURS |
|---|---|---|---|
| H/T [signature] | | | |
| | | | |
| | | | |
| | | | |
| | | | |

DAILY OPERATIONS 0630 SECURED 14:30 SUBSISTENCE _____

DISPOSAL 35 YDS OIL DEBRIS SOLID TO CPC/PSC (CO# 10314)

BILL GRP. # _____

33613

APPROVED X [signature]
CUSTOMER REPRESENTATIVE

MILLER ENVIRONMENTAL GROUP INC.

P.O. # _____

DATE ~~23~~ July 98

DAILY JOB REPORT

CUSTOMER SULZER METCO Phone MIKE LYDON 334-1300

BILLING ADDRESS 1101 PROSPECT AVE, Po Box 1006, WESTBURY, NY 11590-0001

LOCATION OF WORK SAME

JOB DESCRIPTION SPOT ROLL-OFF CONTAINER

| MATERIALS | | SUBCONTRACTORS | |
|---|---|---|---|
| (1) LINER ROLL-OFF | | | |
| | | | |
| | | | |

EQUIPMENT

ROLL-OFF TRK # 42

NASSAU COUNTY SPOT CHARGE

ROLL-OFF BOX # 20-11

START RENTAL : 7/23

END RENTAL : 7/28/98

WORKER PROTECTION LEVEL –

| PERSONNEL | TOTAL HOURS | PERSONNEL | TOTAL HOURS |
|---|---|---|---|
| R. MINTON | | | |
| | | | |
| | | | |
| | | | |
| | | | |

DAILY OPERATIONS 1130 SECURED 14:30 SUBSISTENCE _____

DISPOSAL _____

BILL GRP. # _____

33614

APPROVED _____

CUSTOMER REPRESENTATIVE

# MILLER ENVIRONMENTAL GROUP INC.

516-369-4900 PO Box 610 Cedarhurst, NY 11516 FAX 516-369-4909

Invoice # 046029



August 3, 1998

Sulzer Metco
1101 Prospect Ave
P.O. Box 1006
Westbury, NY 11590

AUG 10 1998

Customer # 11206

| Description | Quantity/ Unit | Unit Price | Amount |
|---|---|---|---|
| RE: Spot rolloff container - Westbury | | | |
| 7/23/98 | | | |
| Nassau and Suffolk Spot/Pickup Charge | 1.00 SPOT | 450.00 | 450.00 |
| Trailer Liner | 1.00 EA | 85.00 | 85.00 |
| Rolloff Box rental 7/23-7/28/98 NO CHARGE | 6.00 DAY | | |
| 7/30/98 | | | |
| Disposal | 35.00 YARD | 235.00 | 8225.00 |
| | | | 8760.00 |
| | | Sales Tax | 744.60 |
| | | Total | 9504.60 |

8 1/2% Sales tax

THOMAS S. GULOTTA
COUNTY EXECUTIVE

KATHLEEN A. GAFFNEY, M.D., M.P.H.
COMMISSIONER

COUNTY OF NASSAU
DEPARTMENT OF HEALTH
240 OLD COUNTRY ROAD
MINEOLA, N.Y. 11501-4250

September 18, 1998

Sulzer Metco (US) Inc.
1101 Prospect Avenue
Westbury, N.Y. 11590

Attn:Michael S. Lydon

Re: Tank Registration Fee
Fac. # 1536
Tank No. 1

Dear Mr. Lydon:

Enclosed is your Check Number 41692 submitted to this ofice in payment for your facility's Article XI Permit for the 5500 gallon clarifying tank on site.

This is to confirm our recent conversation regarding the method of paying for the permit. As we discussed, due to our computerized billing procedure, the invoice mailed to you on August 1, 1998 reflects a five year permit fee, and should be paid in full. After payment $200.00 of the fee will be refunded to reflect the one year registration required for tanks due for removal.

If you have any questions regarding this matter, please call me at 571-2284.

Very truly yours,

Michael Sekreta
Bureau of Environmental Management

MS:sb
Enc.
1027Q

**P. W. GROSSER**
CONSULTING
ENGINEER &
HYDROGEOLOGIST, P.C.

**KALOGERAS &**
**GROSSER**
CONSULTING
ENGINEERS, P.C.

630
JOHNSON
AVENUE
SUITE 7

BOHEMIA

NEW YORK
11716-2618

PHONE:
516-589-6353

FAX:
516-589-8705

E-MAIL:
pwgc-kg@worldnet.att.net

July 31, 1998

MR MICHAEL LYDON
SULZER METCO (US) INC.
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201

Invoice No. SUL9801-01

Project: SUL9801 – UIC Sampling

For Professional Engineering Services rendered to provide technical support to close UIC issues for two exterior structures according to NCDH protocol. Tasks included coordination with the NCDH, initial sample collection for characterization and laboratory analysis in accordance with our signed proposal dated July 2, 1998.

BILLING PERIOD: July 2, 1998 through July 31, 1998

Task 1 – Closure Plan Preparation and Submittal
Work included negotiation with NCDH to waive the requirement for a closure plan.
FEE BASIS: Lump Sum $ 1,500.00 No Charge

Task 2 – Sample Collection and Analysis
Work included coordination with the NCDH to observe and document initial sample collection; collection of samples from inside drywells for characterization; and laboratory analysis.
FEE BASIS: Lump Sum $ 1,700.00
80% Laboratory Surcharge for two day results rush $ 800.00

INVOICE TOTAL: $ 2,500.00

**AMOUNT PAYABLE: $ 2,500.00**

Please remit to: **P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**

ACEC
Member
Supporting
Exellence in
Engineering
Since
1990



TERMS: NET 30 DAYS
ACCOUNTS UNPAID 30 DAYS AFTER THE INVOICE DATE ARE SUBJECT TO A SERVICE CHARGE OF 1.5% PER MONTH ON THE UNPAID BALANCE
PLEASE REFERENCE INVOICE NUMBER ON PAYMENT



Printed on recycled paper

# Statement

**P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.**
**630 Johnson Avenue**
**Suite 7**
**Bohemia, NY 11716**
**(516) 589-6353**

| DATE |
|---|
| 8/24/98 |

TO:
Sulzer Metco (US), Inc.
Mr. Michael Lydon
1101 Prospect Avenue
Westbury, NY 11590-0201

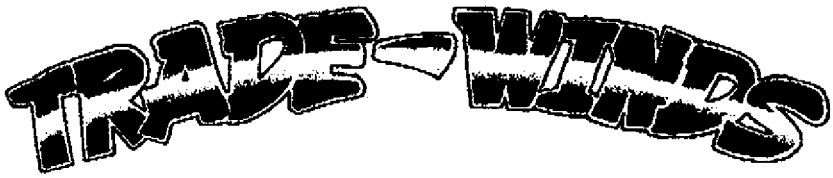
| AMOUNT DUE | AMOUNT ENC. |
|---|---|
| $7,503.20 | |

| DATE | TRANSACTION | AMOUNT |
|---|---|---|
| 07/24/98 | Balance forward | 0.00 |
| 07/31/98 | SUL9801-<br>INV #01 | 2,500.00 |
| 07/31/98 | SUL9802 UIC REMEDIATION-<br>INV #01 | 5,003.20 |

| CURRENT | 1-30 DAYS PAST DUE | 31-60 DAYS PAST DUE | 61-90 DAYS PAST DUE | OVER 90 DAYS PAST DUE | AMOUNT DUE |
|---|---|---|---|---|---|
| 7,503.20 | 0.00 | 0.00 | 0.00 | 0.00 | $7,503.20 |

FINANCE CHARGE INDICATED AS INV #FC HAS BEEN ADDED TO PAST DUE BALANCES

** TOTAL PAGE.02 **




July 21, 1998

To: P.W. Grosser
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618

Attn: Alison Walter

Re: Sulder Metco
Westbury, NY

Dear Ms. Walter:

The following is the pricing you requested for the above referenced site as you requested.

**Pricing:**

| | |
|---|---|
| Mobilization of Frak Tank (10,000 gallons) | 850.00 |
| Demobilization of Frak Tank | 850.00 |
| Daily rental rate on Frak Tank (10,000 gallons) | 45.00 per day |
| Trash pump daily rental | 120.00 per day |
| Vector, operator and two (2) laborers | 1,750.00 per day |
| DOT certified drum | 32.65 each |
| Disposal of lead contaminated soils price per drum | 245.00 each |
| Disposal of solvent contaminated soils price per drum | 310.00 each |
| Disposal of liquids if excepted into Cedar Creek Treatment Plant. Price per 3,500 gallons or any part of. | 485.00 per 3,500 gallons |

N/A

**A deposit of $2,500 will be required.**

_____ _____

Accepted By: Date:

Sincerely,

Artie Baldwin
Trade-Winds Environmental

**Environmental Restoration Inc.**

100 Sweeneydale Avenue, Bay Shore, NY 11706 • 516-755-4000 • Fax: 516-435-4337 • 1-800-282-8701

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | <1 | |
| Barium as Ba | mg/Kg | 190 | |
| Cadmium as Cd | mg/Kg | <1 | |
| Chromium as Cr | mg/Kg | 64 | |
| Lead as Pb | mg/Kg | 210 | |
| Mercury as Hg | mg/Kg | 0.093 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | 0.71 | |
| % Solids | | 77 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn# 16097 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue. Suite 7
Bohemia. NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro. SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/Kg | <5 |
| Trichlorofluomethane | ug/Kg | <5 |
| 1,1 Dichloroethene | ug/Kg | <5 |
| Methylene Chloride | ug/Kg | <5 |
| t-1,2-Dichloroethene | ug/Kg | <5 |
| 1,1 Dichloroethane | ug/Kg | <5 |
| 2,2-Dichloropropane | ug/Kg | <5 |
| c-1,2-Dichloroethene | ug/Kg | <5 |
| Bromochloromethane | ug/Kg | <5 |
| Chloroform | ug/Kg | <5 |
| 111 Trichloroethane | ug/Kg | <5 |
| 1,1-Dichloropropene | ug/Kg | <5 |
| Carbon Tetrachloride | ug/Kg | <5 |
| Benzene | ug/Kg | <5 |
| 1,2 Dichloroethane | ug/Kg | <5 |
| Trichloroethylene | ug/Kg | <5 |
| 1,2 Dichloropropane | ug/Kg | <5 |
| Bromodichloromethane | ug/Kg | <5 |
| Dibromomethane | ug/Kg | <5 |
| Toluene | ug/Kg | <5 |
| 112 Trichloroethane | ug/Kg | <5 |
| Tetrachloroethene | ug/Kg | <5 |
| 1,3-Dichloropropane | ug/Kg | <5 |
| Chlorodibromomethane | ug/Kg | <5 |
| 1,2 Dibromoethane | ug/Kg | <5 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/Kg | <5 |
| Chlorobenzene | ug/Kg | <5 |
| Ethyl Benzene | ug/Kg | <5 |

cc:

REMARKS: Analysis was performed by GC/MS. EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn= 16098 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| m + p Xylene | ug/Kg | <10 |
| o Xylene | ug/Kg | <5 |
| Styrene | ug/Kg | <5 |
| Bromoform | ug/Kg | <5 |
| Isopropylbenzene | ug/Kg | <5 |
| 1122Tetrachloroethan | ug/Kg | <5 |
| Bromobenzene | ug/Kg | <5 |
| 123-Trichloropropane | ug/Kg | <5 |
| n-Propylbenzene | ug/Kg | <5 |
| 2-Chlorotoluene | ug/Kg | <5 |
| 135-Trimethylbenzene | ug/Kg | <5 |
| 4-Chlorotoluene | ug/Kg | <5 |
| tert-Butylbenzene | ug/Kg | <5 |
| 124-Trimethylbenzene | ug/Kg | <5 |
| sec-Butylbenzene | ug/Kg | <5 |
| p-Isopropyltoluene | ug/Kg | <5 |
| 1,2 Dichlorobenzene | ug/Kg | <5 |
| 1,3 Dichlorobenzene | ug/Kg | <5 |
| 1,4 Dichlorobenzene | ug/Kg | <5 |
| DBCP | ug/Kg | <5 |
| 124-Trichlorobenzene | ug/Kg | <5 |
| Hexachlorobutadiene | ug/Kg | <5 |
| Naphthalene | ug/Kg | <5 |
| 123-Trichlorobenzene | ug/Kg | <5 |
| c-1,3Dichloropropene | ug/Kg | <5 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| t-1,3Dichloropropene | ug/Kg | <5 |
| Acetone | ug/Kg | <50 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16099 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.01 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Distribution Box

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <8000 | |
| #2 Fuel Oil | ug/Kg | 180000* | |
| #4 Fuel Oil | ug/Kg | <8000 | |
| #6 Fuel Oil | ug/Kg | <8000 | |
| Lubricating Oil | ug/Kg | <8000 | |
| Mineral Spirits | ug/Kg | <8000 | |
| JP4 | ug/Kg | <8000 | |
| JP5 | ug/Kg | <8000 | |
| Jet A | ug/Kg | <8000 | |
| Kerosene | ug/Kg | <8000 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn* 16100 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/Kg | <1 | |
| Barium as Ba | mg/Kg | 480 | |
| Cadmium as Cd | mg/Kg | 26 | |
| Chromium as Cr | mg/Kg | 2200 | |
| Lead as Pb | mg/Kg | 680 | |
| Mercury as Hg | mg/Kg | 2.5 | |
| Selenium as Se | mg/Kg | <0.4 | |
| Silver as Ag | mg/Kg | 1.5 | |
| % Solids | | 56 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn= 16101 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/Kg | 3700 |
| Trichlorofluomethane | ug/Kg | <1000 |
| 1,1 Dichloroethene | ug/Kg | 66000 |
| Methylene Chloride | ug/Kg | <1000 |
| t-1,2-Dichloroethene | ug/Kg | <1000 |
| 1,1 Dichloroethane | ug/Kg | 860000 |
| 2,2-Dichloropropane | ug/Kg | <1000 |
| c-1,2-Dichloroethene | ug/Kg | <1000 |
| Bromochloromethane | ug/Kg | <1000 |
| Chloroform | ug/Kg | <1000 |
| 111 Trichloroethane | ug/Kg | 4200000 |
| 1,1-Dichloropropene | ug/Kg | <1000 |
| Carbon Tetrachloride | ug/Kg | <1000 |
| Benzene | ug/Kg | <1000 |
| 1,2 Dichloroethane | ug/Kg | <1000 |
| Trichloroethylene | ug/Kg | <1000 |
| 1,2 Dichloropropane | ug/Kg | <1000 |
| Bromodichloromethane | ug/Kg | <1000 |
| Dibromomethane | ug/Kg | <1000 |
| Toluene | ug/Kg | 140000 |
| 112 Trichloroethane | ug/Kg | <1000 |
| Tetrachloroethene | ug/Kg | 34000 |
| 1,3-Dichloropropane | ug/Kg | <1000 |
| Chlorodibromomethane | ug/Kg | <1000 |
| 1,2 Dibromoethane | ug/Kg | <1000 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/Kg | <1000 |
| Chlorobenzene | ug/Kg | <1000 |
| Ethyl Benzene | ug/Kg | 4300 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn= 16102 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue. Suite 7
Bohemia. NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro. SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample. Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| m + p Xylene | ug/Kg | 31000 |
| o Xylene | ug/Kg | 8100 |
| Styrene | ug/Kg | <1000 |
| Bromoform | ug/Kg | <1000 |
| Isopropylbenzene | ug/Kg | <1000 |
| 1122Tetrachloroethan | ug/Kg | <1000 |
| Bromobenzene | ug/Kg | <1000 |
| 123-Trichloropropane | ug/Kg | <1000 |
| n-Propylbenzene | ug/Kg | <1000 |
| 2-Chlorotoluene | ug/Kg | <1000 |
| 135-Trimethylbenzene | ug/Kg | <1000 |
| 4-Chlorotoluene | ug/Kg | <1000 |
| tert-Butylbenzene | ug/Kg | <1000 |
| 124-Trimethylbenzene | ug/Kg | <1000 |
| sec-Butylbenzene | ug/Kg | <1000 |
| p-Isopropyltoluene | ug/Kg | <1000 |
| 1.2 Dichlorobenzene | ug/Kg | <1000 |
| 1,3 Dichlorobenzene | ug/Kg | <1000 |
| 1,4 Dichlorobenzene | ug/Kg | <1000 |
| DBCP | ug/Kg | <1000 |
| 124-Trichlorobenzene | ug/Kg | <1000 |
| Hexachlorobutadiene | ug/Kg | <1000 |
| Naphthalene | ug/Kg | <1000 |
| 123-Trichlorobenzene | ug/Kg | <1000 |
| c-1,3Dichloropropene | ug/Kg | <1000 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| t-1,3Dichloropropene | ug/Kg | <1000 |
| Acetone | ug/Kg | <10000 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16103 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.02 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Soil sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/Kg | <20000 | |
| #2 Fuel Oil | ug/Kg | 1300000* | |
| #4 Fuel Oil | ug/Kg | <20000 | |
| #6 Fuel Oil | ug/Kg | <20000 | |
| Lubricating Oil | ug/Kg | <20000 | |
| Mineral Spirits | ug/Kg | <20000 | |
| JP4 | ug/Kg | <20000 | |
| JP5 | ug/Kg | <20000 | |
| Jet A | ug/Kg | <20000 | |
| Kerosene | ug/Kg | <20000 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn# 16104 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro. SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Arsenic as As | mg/L | <0.1 | |
| Barium as Ba | mg/L | 2.2 | |
| Cadmium as Cd | mg/L | <0.1 | |
| Chromium as Cr | mg/L | 3.5 | |
| Lead as Pb | mg/L | 30 | |
| Mercury as Hg | mg/L | 0.0094 | |
| Selenium as Se | mg/L | 0.030 | |
| Silver as Ag | mg/L | <0.02 | |
| pH (lab) | units | 5.7 | |

cc:

REMARKS:

DIRECTOR PRELIMINARY

rn= 16105 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS |
|---|---|---|---|
| Diesel | ug/L | <10 | |
| #2 Fuel Oil | ug/L | 710* | |
| #4 Fuel Oil | ug/L | <10 | |
| #6 Fuel Oil | ug/L | <10 | |
| Lubricating Oil | ug/L | <10 | |
| Mineral Spirits | ug/L | <10 | |
| JP4 | ug/L | <10 | |
| JP5 | ug/L | <10 | |
| Jet A | ug/L | <10 | |
| Kerosene | ug/L | <10 | |

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
*GC analysis indicates sample contains a product for which closest match is extremely weathered fuel oil; product is quantified as #2 Fuel Oil although it is indistinguishable from Diesel, #4 or #6 Fuel Oil. Quality of match for fule Quality of match for fuel oil = Good.

DIRECTOR PRELIMINARY

rn= 16108 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | | ANALYTICAL PARAMETERS | | |
|---|---|---|---|---|---|
| m + p Xylene | ug/L | <2 | t-1,3Dichloropropene | ug/L | <1 |
| o Xylene | ug/L | <1 | Acetone | ug/L | <10 |
| Styrene | ug/L | <1 | | | |
| Bromoform | ug/L | <1 | | | |
| Isopropylbenzene | ug/L | <1 | | | |
| 1122Tetrachloroethan | ug/L | <1 | | | |
| Bromobenzene | ug/L | <1 | | | |
| 123-Trichloropropane | ug/L | <1 | | | |
| n-Propylbenzene | ug/L | <1 | | | |
| 2-Chlorotoluene | ug/L | <1 | | | |
| 135-Trimethylbenzene | ug/L | <1 | | | |
| 4-Chlorotoluene | ug/L | <1 | | | |
| tert-Butylbenzene | ug/L | <1 | | | |
| 124-Trimethylbenzene | ug/L | <1 | | | |
| sec-Butylbenzene | ug/L | <1 | | | |
| p-Isopropyltoluene | ug/L | <1 | | | |
| 1,2 Dichlorobenzene | ug/L | <1 | | | |
| 1,3 Dichlorobenzene | ug/L | <1 | | | |
| 1,4 Dichlorobenzene | ug/L | <1 | | | |
| DBCP | ug/L | <1 | | | |
| 124-Trichlorobenzene | ug/L | <1 | | | |
| Hexachlorobutadiene | ug/L | <1 | | | |
| Naphthalene | ug/L | <1 | | | |
| 123-Trichlorobenzene | ug/L | <1 | | | |
| c-1.3Dichloropropene | ug/L | <1 | | | |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 2 of 2.

DIRECTOR PRELIMINARY

rn= 16107 NYSDOH ID# 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon NY 11703
516 422-5777

LAB NO:982761.03 07/16/98

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Allison Walter

SOURCE OF SAMPLE: SULZER Metro, SUL 9801
COLLECTED BY: Client DATE COL'D:07/14/98 RECEIVED:07/14/98

SAMPLE: Water sample, Settling Tank

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| Vinyl Chloride | ug/L | <1 |
| Trichlorofluomethane | ug/L | <1 |
| 1,1 Dichloroethene | ug/L | <1 |
| Methylene Chloride | ug/L | <1 |
| t-1,2-Dichloroethene | ug/L | <1 |
| 1,1 Dichloroethane | ug/L | 5 |
| 2,2-Dichloropropane | ug/L | <1 |
| c-1,2-Dichloroethene | ug/L | <1 |
| Bromochloromethane | ug/L | <1 |
| Chloroform | ug/L | <1 |
| 111 Trichloroethane | ug/L | 11 |
| 1,1-Dichloropropene | ug/L | <1 |
| Carbon Tetrachloride | ug/L | <1 |
| Benzene | ug/L | <1 |
| 1,2 Dichloroethane | ug/L | <1 |
| Trichloroethylene | ug/L | <1 |
| 1,2 Dichloropropane | ug/L | <1 |
| Bromodichloromethane | ug/L | <1 |
| Dibromomethane | ug/L | <1 |
| Toluene | ug/L | <1 |
| 112 Trichloroethane | ug/L | <1 |
| Tetrachloroethene | ug/L | <1 |
| 1,3-Dichloropropane | ug/L | <1 |
| Chlorodibromomethane | ug/L | <1 |
| 1,2 Dibromoethane | ug/L | <1 |

| ANALYTICAL PARAMETERS | | |
|---|---|---|
| 1112Tetrachloroethan | ug/L | <1 |
| Chlorobenzene | ug/L | <1 |
| Ethyl Benzene | ug/L | <1 |

cc:

REMARKS: Analysis was performed by GC/MS, EPA Method 8260.
Page 1 of 2.

DIRECTOR PRELIMINARY

rn* 16106 NYSDOH ID# 10320

Form Approved OMB No.: 2070-0093

Approval Expires: 01/91

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

**EPA FORM R**

**PART I. FACILITY IDENTIFICATION INFORMATION**

(This space for your optional use.)

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [ ] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [X] Unsanitized

1.3 Reporting Year 19 89

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe Superintendent, Facilities

Signature: Patrick A. Tighe

Date signed: June 29, 1990

## 3. FACILITY IDENTIFICATION

3.1 Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION

Street Address: 220 Miller Place

City: Hicksville

County: Nassau

State: New York

Zip Code: 11801

TRI Facility Identification Number: 11801PRKNL220MI

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe — Telephone Number (include area code): 516 334-1300

3.4 Public Contact: Same as 3.4 — Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3399 b. c. d. e. f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| | 0861300 | | | 0034700 | |

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NYD981558570 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

## 4. PARENT COMPANY INFORMATION

4.1 Name of Parent Company: Perkin-Elmer Corporation

4.2 Parent Company's Dun & Bradstreet Number: 00-118-4480

EPA

# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

### 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

### 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

### 1. CHEMICAL IDENTITY (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) 007440-47-3 |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) CHROMIUM (III) POWDER |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

### 2. MIXTURE COMPONENT IDENTITY (Do not complete this section if you complete Section 1.)

2. Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

### 3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution; f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | d. [ ] Repackaging only | b. [ ] As a formulation component | | c. [X] As an article component |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | | b. [ ] As a manufacturing aid | | c. [ ] Ancillary or other use |

### 4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

[0][3] (enter code)

### 5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE

You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2)

| | | A. Total Release (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [X] [ ] [ ] | | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [ ] [ ] [ ] | 1400 | 5.2b [C] | |
| 5.3 Discharges to receiving streams or water bodies 5.3.1 [ ] | 5.3.1a | [N/A] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) 5.3.2 [ ] | 5.3.2a | [N/A] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [N/A] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection on-site | 5.4a | [N/A] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land on-site | | | | | |
| 5.5.1 Landfill | 5.5.1a | [N/A] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [N/A] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [N/A] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [N/A] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) A.1 Reporting Ranges 0 / 1-499 / 500-999 | A. Total Transfers (pounds/year) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 [ ] | [N/A] [ ] [ ] | | 6.1.1b [ ] | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 [ ] | [N/A] [ ] [ ] | | 6.2.1b [ ] | 6.2.1c M [ ] [ ] |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 [ ] | [N/A] [ ] [ ] | | 6.2.2b [ ] | 6.2.2c M [ ] [ ] |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 [ ] | [N/A] [ ] [ ] | | 6.2.3b [ ] | 6.2.3c M [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

[N/A] Not Applicable (NA) - Check if no on-site treatment is applied to any wastestream containing the chemical or chemical category.

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a [ ] | 7.1b [ ] [ ] [ ] | 7.1c [ ] | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a [ ] | 7.2b [ ] [ ] [ ] | 7.2c [ ] | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a [ ] | 7.3b [ ] [ ] [ ] | 7.3c [ ] | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a [ ] | 7.4b [ ] [ ] [ ] | 7.4c [ ] | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a [ ] | 7.5b [ ] [ ] [ ] | 7.5c [ ] | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a [ ] | 7.6b [ ] [ ] [ ] | 7.6c [ ] | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a [ ] | 7.7b [ ] [ ] [ ] | 7.7c [ ] | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a [ ] | 7.8b [ ] [ ] [ ] | 7.8c [ ] | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a [ ] | 7.9b [ ] [ ] [ ] | 7.9c [ ] | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a [ ] | 7.10b [ ] [ ] [ ] | 7.10c [ ] | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal: Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| M 7 | _____ | _____ | [ ] + [ ] - _____ % | [ ] [ ] | R [ ] |

**EPA** **EPA FORM R**

## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | | A. Total Release (pounds/year) | | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|---|---|
| | | | A.1 Reporting Ranges 0 / 1–499 / 500–999 | A.2 Enter Estimate | | |
| 5.3 Discharges to receiving streams or water bodies | 5.3.___ ☐ | 5.3.___a | [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| (Enter letter code for stream from Part I Section 3.10 in the box provided.) | 5.3.___ ☐ | 5.3.___a | [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| | 5.3.___ ☐ | 5.3.___a | [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/year) | | B. Basis of Estimate | C. Type of Treatment/ Disposal |
|---|---|---|---|---|
| | A.1 Reporting Ranges 0 / 1–499 / 500–999 | A.2 Enter Estimate | (enter code in box provided) | (enter code in box provided) |
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 ☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M ☐☐ |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

State of New Jersey
Department of Environmental Protection
Hazardous Waste Regulation Program
Manifest Section
CN 421, Trenton, NJ 08625-0421

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

*Form Approved. OMB No. 2050-0039. Expires 9-30-97*

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

A. State Manifest Document Number: NJA 281950

B. State Generator's ID-(Gen. Site Address)

4. Generator's Phone ( )

5. Transporter 1 Company Name | 6. US EPA ID Number

C. State Trans. ID-NJDEP

Decal No.-

7. Transporter 2 Company Name | 8. US EPA ID Number

D. Transporter's Phone ( )

E. State Trans. ID-NJDEP

Decal No.-

9. Designated Facility Name and Site Address | 10. US EPA ID Number

F. Transporter's Phone ( )

G. State Facility's ID

H. Facility's Phone ( )

| | 11. US DOT Description (Including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group) | HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|---|
| GENERATOR a. | | X | | | | | |
| b. | | | | | | | |
| c. | | | | | | | |
| d. | | | | | | | |

J. Additional Descriptions for Materials Listed Above

a. c.

b. d.

K. Handling Codes for Wastes Listed Above

a. c.

b. d.

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | Month Day Year

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection and Energy. (609) 292-7172

FPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

**SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES**

**3—TSD MAIL TO- GENERATOR**

P2SUL007909

State of New Jersey
Department of Environmental Protection
Hazardous Waste Regulation Program
Manifest Section
CN 421, Trenton, NJ 08625-0421

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.) *Form Approved. OMB No. 2050-0039. Expires 9-30-97*

# UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of | Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number **NJA 2818950**

B. State Generator's ID-(Gen. Site Address)

5. Transporter 1 Company Name | 6. US EPA ID Number

C. State Trans. ID-NJDEP | Decal No.-

7. Transporter 2 Company Name | 8. US EPA ID Number

D. Transporter's Phone ( )

E. State Trans. ID NJDEP | Decal No.-

9. Designated Facility Name and Site Address | 10. US EPA ID Number

F. Transporter's Phone ( )

G. State Facility's ID

H. Facility's Phone ( )

| | 11. US DOT Description (*Including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group*) HM | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt/Vol | I. Waste No. |
|---|---|---|---|---|---|---|
| GENERATOR | a. | | | | | |
| | b. | | | | | |
| | c. | | | | | |
| | d. | | | | | |

J. Additional Descriptions for Materials Listed Above

a. c.

b. d.

K. Handling Codes for Wastes Listed Above

a. c.

b. d.

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

FACILITY

Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | Month Day Year

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

**8—GENERATOR COPY**

**SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES**

P2SUL007910

In case of a spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection and Energy. (609) 292-7172

NJA2818950

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE

TO: SAFETY-KLEEN SYSTEMS, INC.
1200 SYLVAN STREET
LINDEN, NJ 07036

EPA ID: NJD002182897

UNDER MANIFEST NUMBER NJA281895O LINE NUMBER 11g
THE GENERATOR NOTED BELOW IS SHIPPING TO YOU A RESTRICTED WASTE UNDER FEDERAL AND STATE LAND DISPOSAL RESTRICTION REGULATIONS. IN ACCORDANCE WITH THESE REGULATIONS, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED AND THE EPA WASTE CODES AND APPROPRIATE TREATMENT STANDARDS ARE AS FOLLOWS:

HAZARDOUS WASTE CODES: D001

TREATABILITY GROUP: NONWASTEWATERS

| EPA WASTE CODE | WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT | TREATMENT STANDARD CONCENTRATION OR TECHNOLOGY CODE |
|---|---|---|
| D001 | HIGH TOC IGNITABLE CHARACTERISTIC WASTE. | RORGS; OR CMBST ** |

IN ACCORDANCE WITH 6NYCRR 376.4

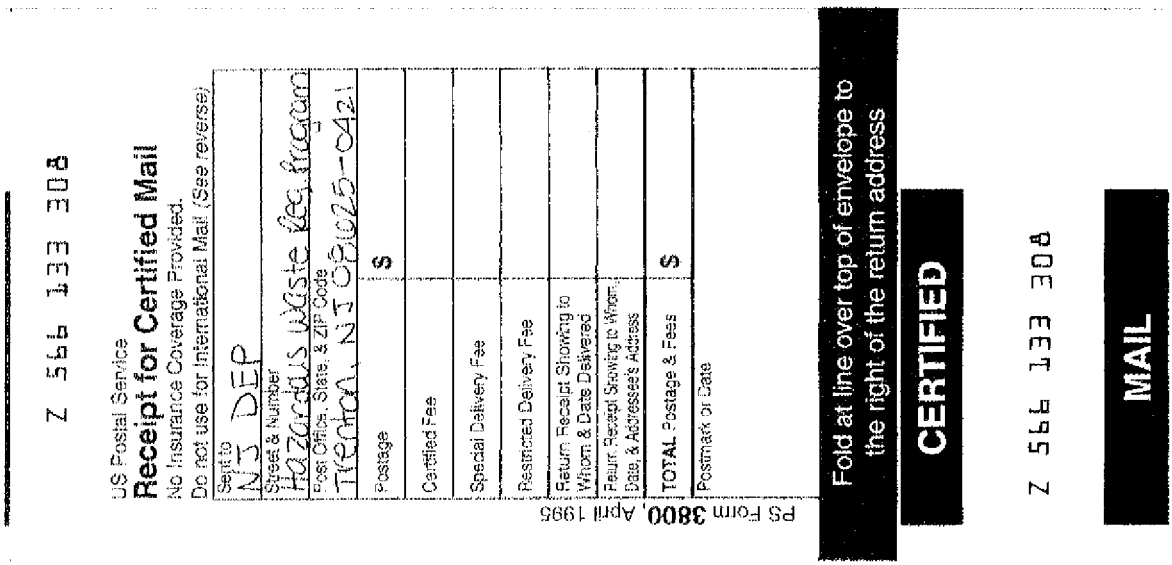
NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE SOLVENT RECOVERY OR USE AS FUEL PRIOR TO LAND DISPOSAL.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
****** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

GENERATOR NAME: SULZER METCO (US), INC EPA ID: NYD057731663

GENERATOR SIGNATURE (OPTIONAL): _____

NAME & TITLE (OPTIONAL): _____

SAFETY-KLEEN SAMPLE NUMBER: 356244 CONTROL NUMBER: 229014-6



Z 566 133 308

US Postal Service
**Receipt for Certified Mail**
No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

Sent to: NJ DEP
Street & Number: Hazardous Waste Reg Program
Post Office, State, & ZIP Code: Trenton, NJ 08625-0421

| | |
|---|---|
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, & Addressee's Address | |
| TOTAL Postage & Fees | $ |
| Postmark or Date | |

PS Form **3800**, April 1995

Fold at line over top of envelope to the right of the return address

**CERTIFIED**

Z 566 133 308

**MAIL**

Is your **RETURN ADDRESS** completed on the reverse side?

**SENDER:**
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
New Jersey DEP
Hazardous Waste Reg Program
Manifest Section
CN421
Trenton, NJ 08625-0421

4a. Article Number
Z 566 133 308

4b. Service Type
☐ Registered ☑ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

Thank you for using Return Receipt Service.

Z 566 133 309

US Postal Service
**Receipt for Certified Mail**
No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

| | |
|---|---|
| Sent to | NY State DEPT of Env. Cons. |
| Street & Number | PO BOX 12820 |
| Post Office, State, & ZIP Code | Albany, NY 12212 |
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, & Addressee's Address | |
| TOTAL Postage & Fees | $ |
| Postmark or Date | |

PS Form **3800**, April 1995

Fold at line over top of envelope to the right of the return address

**CERTIFIED**

Z 566 133 309

**MAIL**

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
New York State Dept. of Env. Cons.
Div. of Haz. Substance Regulation
Manifest Section
P.O. BOX 12820
Albany, NY 12212

4a. Article Number
Z 566 133 309

4b. Service Type
☐ Registered ☑ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

Thank you for using Return Receipt Service.

# EPA FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

United States Environmental Protection Agency

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 92

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?

[ ] Yes (Answer question 2.2; Attach substantiation forms)

[X] No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy: [ ] Sanitized [X] Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official

JOE MACRI, MANAGER FACILITIES

Signature: Joseph Macri

Date Signed: June 30, 1993

**SECTION 4. FACILITY IDENTIFICATION**

4.1

Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION

TRI Facility ID Number: 11801PRKNL220MI

Street Address: 220 Miller Place

City: Hicksville

County: Nassau

State: New York

Zip Code: 11801

Mailing Address (if different from street address):

City:

State: Zip Code:

PUT LABEL HERE

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | | | b. ☒ Part of a facility | | |
| 4.3 | Technical Contact | Name: JOE MACRI | | | | Telephone Number (include area code): (516) 334-1300 | |
| 4.4 | Public Contact | Name: JOE MACRI | | | | Telephone Number (include area code): (516) 334-1300 | |
| 4.5 | SIC Code (4-digit) | a. 3399 | b. | c. | d. | e. | f. |
| 4.6 | Latitude and Longitude | Latitude: Degrees: 086 | Minutes: 13 | Seconds: 00 | Longitude: Degrees: 003 | Minutes: 47 | Seconds: 00 |
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a. 05-773-1663 | | | | | |
| | | b. | | | | | |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a. NYD981558570 | | | | | |
| | | b. | | | | | |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a. N/A | | | | | |
| | | b. | | | | | |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a. N/A | | | | | |
| | | b. | | | | | |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company | |
| | ☐ NA | PERKIN-ELMER CORPORATION |
| 5.2 | Parent Company's Dun & Bradstreet Number | |
| | ☐ NA (9 digits) | 00-118-4480 |

EPA
United States Environmental Protection Agency

# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7429-90-5 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | ALUMINUM (FUME OR DUST) |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.) |
| | N/A |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers,letters, spaces, and punctuation.) |
| | N/A |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | |
|---|---|---|---|
| 3.1 | Manufacture the toxic chemical: | a. ☐ Produce<br>b. ☐ Import | If produce or import:<br>c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | Process the toxic chemical: | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. ☒ As an article component<br>d. ☒ Repackaging |
| 3.3 | Otherwise use the toxic chemical: | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☐ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 | (Enter two-digit code from instruction package.) |

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United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| **Toxic Chemical, Category, or Generic Name** |
| ALUMINUM POWDER |

## SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/ year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | [X] NA | | | |
| 5.2 | Stack or point air emissions | [ ] NA | 310 | C | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name<br>N/A | | | | |
| 5.3.2 | Stream or Water Body Name<br>N/A | | | | |
| 5.3.3 | Stream or Water Body Name<br>N/A | | | | |
| 5.4 | Underground injections on-site | [X] NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | [X] NA | | | |
| 5.5.2 | Land treatment/ application farming | [X] NA | | | |
| 5.5.3 | Surface impoundment | [X] NA | | | |
| 5.5.4 | Other disposal | [X] NA | | | |

[ ] Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = 1
C = 500 - 999 pounds.

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

### SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|
| 5.3.__ | Stream or Water Body Name | | | |
| | N/A | | | |
| 5.3.__ | Stream or Water Body Name | | | |
| | N/A | | | |
| 5.3.__ | Stream or Water Body Name | | | |
| | N/A | | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

#### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| N/A | |

6.1.B POTW Name and Location Information

| 6.1.B.__ POTW Name | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Sections 5.3/6.1 page this is, here. [ ]
(example: 1, 2, 3, etc.)



Range Codes: A = 1 - 10 pounds; B = 11 C = 500 - 999 pounds.

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11801PRKNL220MI

Toxic Chemical, Category, or Generic Name: ALUMINUM POWDER

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: I. GANZ METAL, INC.

Street Address: 96 WHYTHE AVENUE

City: BROOKLYN | County: KINGS

State: NY | Zip Code: 11211 | Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. B | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: LONI-JO SCRAP METAL

Street Address: 70 KINKEL STREET

City: WESTBURY | County: NASSAU

State: NY | Zip Code: 11590 | Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 1700 | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Section 6.2 page this is, here. [ ] (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 1 - C = 500 - 999 pounds

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| **Toxic Chemical, Category, or Generic Name** |
| ALUMINUM POWDER |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] **Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.**

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes [ ] No [ ] |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes [ ] No [ ] |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes [ ] No [ ] |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes [ ] No [ ] |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes [ ] No [ ] |

**If additional copies of page 7 are attached, indicate the total number of pages in this box [ ] and indicate which page 7 this is, here. [ ] (example: 1, 2, 3, etc.)**

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11801PRKNL220MI

Toxic Chemical, Category, or Generic Name: ALUMINUM POWDER

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.**

Energy Recovery Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ]

## SECTION 7C. ON-SITE RECYCLING PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.**

Recycling Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 [ ]

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Chemical Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | *All quantity estimates can be reported using up to two significant figures.* | Column A 1991 (pounds/year) | Column B 1992 (pounds/year) | Column C 1993 (pounds/year) | Column D 1994 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released* | 0 | 0 | 0 | 0 |
| 8.2 | Quantity used for energy recovery on-site | 0 | 0 | 0 | 0 |
| 8.3 | Quantity used for energy recovery off-site | 0 | 0 | 0 | 0 |
| 8.4 | Quantity recycled on-site | 0 | 0 | 0 | 0 |
| 8.5 | Quantity recycled off-site | 3700 | 1800 | 1800 | 1800 |
| 8.6 | Quantity treated on-site | 0 | 0 | 0 | 0 |
| 8.7 | Quantity treated off-site | 0 | 0 | 0 | 0 |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | N/A | | | |
| 8.9 | Production ratio or activity index | .95 | | | |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | W19 | a. T04 | b. | c. |
| 8.10.2 | W29 | a. T04 | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | YES | NO |
|---|---|---|---|
| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | ☐ | ☒ |

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

FILING OF 1991 TIER TWO REPORT

EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY 02-28-92

DUFFY AVENUE

INVENTORY OF MATERIAL - AS PER BILL BOUCHARD

A. MINERAL SPIRITS 2 - 55 GALLON DRUMS
DOES NOT QUALIFY
DOES NOT QUALIFY YEAR 1991
QUALIFY YEAR 1992

B. 1,1,1 - TRICHLOROETHANE
USED IN TANK DEGREASER
DOES NOT QUALIFY YEAR 1991
NOT 10,000 #
AVERAGE OF 3 - 55 GALLON DRUMS ON-SITE INCLUDING WHAT IS IN THE TANK
MAXIMUM AMOUNT ON SITE 6 - 55 GALLON DRUMS
DOES NOT QUALIFY

C. FREON
USED IN TWO OTHER DEGREASERS
DOES NOT QUALIFY YEAR 1991
DISCONTINUED
AVERAGE OF 3 - 55 GALLON DRUMS ON-SITE
MAXIMUM OF 4 - 55 GALLON DRUMS
ONE DEGREASER WAS TAKEN DOWN IN 1991
THE OTHER DEGREASER WILL BE TAKEN DOWN IN 1992
DOES NOT QUALIFY

Form Approved OMB No 2050 0072

# Tier Two

**EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY**

*Specific Information by Chemical*

**Facility Identification**

Name: PERKIN-ELMER CORPORATION METCD DIVISION
Street: 325 DUFFY AVENUE
City: HICKSVILLE County: NASSAU State: NY Zip: 11801
SIC Code: 3542 Dun & Brad Number: 05-773-1663

**FOR OFFICIAL USE ONLY**
ID #:
Date Received:

**Owner/Operator Name**
Name: JOSEPH MACRI Phone: (516) 334-1300
Mail Address: 1101 PROSPECT AVENUE WESTBURY NY 11590

**Emergency Contact**
Name: JOSEPH MACRI Title: MANAGER FACILITIES
Phone: (516) 334-1300 EXT. 2374 24 Hr. Phone: (800) 424-9300 CHEMTREC
Name: Title:
Phone: ( ) 24 Hr. Phone: ( )

*Important: Read all instructions before completing form*

Reporting Period From January 1 to December 31, 19 91

☐ Check if information below is identical to the information submitted last year.

## Chemical Description

CAS: 71 55 6 Trade Secret: ☐
Chem. Name: 1,1,1-TRICHLOROETHANE
Check all that apply: Pure ☒ Mix ☐ Solid ☐ Liquid ☒ Gas ☐ EHS ☐
EHS Name:

CAS: Trade Secret: ☐
Chem. Name:
Check all that apply: Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS ☐
EHS Name:

CAS: Trade Secret: ☐
Chem. Name:
Check all that apply: Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS ☐
EHS Name:

## Physical and Health Hazards (check all that apply)

| | Fire | Sudden Release of Pressure | Reactivity | Immediate (acute) | Delayed (chronic) |
|---|---|---|---|---|---|
| Chemical 1 | ☒ | ☐ | ☒ | ☒ | ☒ |
| Chemical 2 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Chemical 3 | ☐ | ☐ | ☐ | ☐ | ☐ |

## Inventory

| | Max. Daily Amount (code) | Avg. Daily Amount (code) | No. of Days On-site (days) |
|---|---|---|---|
| Chemical 1 | | | 365 |
| Chemical 2 | | | |
| Chemical 3 | | | |

3000 MAX ON SITE

## Storage Codes and Locations (Non-Confidential)

*Storage Locations*

| | Container Type | Pressure | Temperature | Volume | Release |
|---|---|---|---|---|---|
| Chemical 1 | C | 1 | 5 | | |
| | D | 1 | 4 | | |
| Chemical 2 | | | | | |
| Chemical 3 | | | | | |

DEGREASING PROCESS

Optional: ☐ ☐ ☐

## Certification *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through _____ and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

JOSEPH MACRI MANAGER FACILITIES
Name and official title of owner/operator OR owner/operator's authorized representative

Signature

FEBRUARY 28, 1992
Date signed

## Optional Attachments

☐ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

US EPA 1992 CALENDER YEAR FILED 1993
TOXIC CHEMICAL RELEASE INVENTORY REPORT
SECTION 313 FORM R

# INTEGRATED ENVIRONMENTAL MANAGEMENT, INC
## SCREENING SURVEY DOCUMENTATION

Survey Number _____ Page 1 of 3

| Instrument/SN: 182678 | Calibration Due: 11/24/04 | Site Name: SHUS - Hicksville | Date: 12/11/03 | Time: 1:30 PM |
|---|---|---|---|---|
| Instrument/SN | Calibration Due: | Location of Materials to be Surveyed: Adjacent to loading dock | | |
| Instrument/SN | Calibration Due: | Roll-off Box Identifier: See below | | |

☒ Battery Check OK ☒ Source Check OK ☒ Other (specify) Background = 14 - 20 µR/hr

| Radionuclide(s): | Release Criteria: | Source of Release Criteria: |
|---|---|---|
| ~~Primarily Co-60, Cs-137~~ Source material | ~~5000 dpm (beta/gamma) per 100 cm²~~ < 30 pCi/gm | ☐ Procedure No. (specify):<br>☐ USNRC Regulatory Guide 1.86<br>☐ NUREG-1500<br>☐ Attached calculation<br>☐ Indistinguishable from background<br>☒ Other (specify): 9/10/03 letter from IEM |

| Background Data: | Efficiency Data : | Screening Survey Results |
|---|---|---|
| | ☐ Correction for surface covering included | |

**Notes, Calculations, Drawings, etc.**

Measurement units are in microrem/hr.

Measurements were taken ~ 30 cm from each surface.

"Action Taken" column:
CH indicates ship to Clean Harbors for disposal.
√ = did not ship on 1/12/04.

| | Item (pallet #) | Highest Measurement (include units) | Less Than Applicable Criterion (yes/no) | Action Taken |
|---|---|---|---|---|
| | 1 | 34 | Y | CH |
| √ | 2 | 42 | Y | CH |
| | 3 | 30 | Y | CH |
| | 4 | 30 | Y | CH |
| | 5 | 42 | Y | CH |
| | 6 | 26 | Y | CH |
| | 7 | 40 | Y | CH |
| | 8 | 38 | Y | CH |
| | 9 | 42 | Y | CH |
| | 10 | 24 | Y | CH |
| | 11 | 24 | Y | CH |
| √ | 12 | 36 | Y | CH |
| | 13 | 26 | Y | CH |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| Survey performed by (print): PETER DI PIETRANTONIO | Signature: [signature] | Date: 12/11/03 |
|---|---|---|
| Approved by (print): D.D. | Signature: [signature] | Date: |

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METCO DIVISION PERKIN-ELMER
DUFFY AVENUE
ENVIRONMENTAL ISSUES

Water Pollution Control -

Waste water from a sink in the machine shop appears to discharge into a dry well through a grease trap and neutralization tank. Chronic acid etching solution and oils are handled in this area. Staining in the sink indicated these chemicals may be discharged to the dry well. All sinks in process area should be connected to the sanitary sewer. Waste oils and acids should be disposed of and managed as hazardous waste.

Our investigation of the waste lines revealed that the sink discharges to the storm water drain lines and then into the sump. Currently establishing an employee training program to include hazardous materials handling.

Air Pollution Control -

Emission points discharge VOCs from two spray paint booths and an oven. Paint samples were collected by an NCHD inspector to verify compliance with VOC emissions standards.

An inspector from Nassau County Department of Health, Office of Industrial Facility Regulation, collected paint samples on March 26, 1990. Paints currently in use at facility are water base. An inventory of the air emission points is maintained.

Hazardous Waste Management -

Hazardous waste containers are not labeled or sealed at the point of generation to prevent mixing of incompatible waste and improper disposal. Secondary containment, to prevent spills from reaching a nearby storm drain, is not present in the centralized drum storage area located at the loading dock. Hazardous wastes shipped offsite (October 1989 and April 1989) exceeded the 1000 kg limit for small quantity generators.

An inspector from Nassau County Department of Health office of Industrial and Hazardous Wastes Management toured the facility. Concerning secondary containment, obtaining absorbent material would surfice. The requirement of containers being labeled, dated and sealed is in the process of being addressed. We are in the process of setting up a waste monitoring system which will include weekly inspections of storage areas.

Hazardous Waste Management -

Waste degreasing solvent and waste rags are not properly classified. Rags contaminated with a hazardous waste must be disposed of as hazardous waste.

A waste container will be put into the waste accumulation area soley for the purpose of collecting contaminated rags.

Hazardous Waste Management -

Metco is not in compliance with the provisions of The Nassau County Health Department (NCHD) Hazardous Waste Ordinance:

Central storage areas do not have containment.

Containers in storage are not labeled with DOT designations.

Training is not provided to workers or supervisors involved in hazardous mateials handling practices.

Annual reports have not been submitted to NCHD.

Secondary containment, employee training, proper labeling and annual reports are currently being addressed.

Past Disposal Storage/Practices -

Facility industrial wastes were discharged to a septic system. This system was abandoned in 1986 without documentation on the impacts of discharging industrial wastes to the environment.

A storm water basin receives water from the facility cooling system. The source of this water is an onsite contaminated process well. The well was sampled by NYDEC and shown to be contaminated with volatile organics. The source of this contamination has not been documented.

Underground storage tanks were removed without documentation on the potential impact to soil and ground water.

The underground storage tanks were removed from all three facilities under the guidance of a Nassau County Department of Health representative (1987).

Upon receiving proper approval, we can proceed with our environmental consultants and conduct an investigation covering past disposal/storage practices at our facilities.

Community Right To Know -

A (Tier II) chemical inventory was not submitted to the local fire department.

Reviewing and revising the distribution of reports for SARA Title III Community-Right-To-Know.

Form Approved OMB Number: 2070-0093
Approval Expires: 11/92



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# FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| TRI FACILITY ID NUMBER |
|---|
| |
| **Toxic Chemical, Category, or Generic Name** |
| |

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA Reporting Center
   P.O. Box 3348
   Merrifield, VA 22116-3348
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE
   (See instructions in Appendix F)

Enter "X" here if this is a revision ☐

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

For EPA use only

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 ____

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?

☐ Yes (Answer question 2.2; Attach substantiation forms) ☐ No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy: ☐ Sanitized ☐ Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official

Signature | Date Signed

**SECTION 4. FACILITY IDENTIFICATION**

4.1

Facility or Establishment Name | TRI Facility ID Number

Street Address

City | County

State | Zip Code

Mailing Address (if different from street address)

City

State | Zip Code

PUT LABEL HERE

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# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| |
| Toxic Chemical, Category, or Generic Name |
| |

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | | | b. ☐ Part of a facility | | |
| 4.3 | Technical Contact | Name | | | | Telephone Number (Include area code) | |
| 4.4 | Public Contact | Name | | | | Telephone Number (Include area code) | |
| 4.5 | SIC Code (4-digit) | a. | b. | c. | d. | e. | f. |
| 4.6 | Latitude and Longitude | Latitude | | | Longitude | | |
| | | Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| | | | | | | | |
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a. | | | | | |
| | | b. | | | | | |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a. | | | | | |
| | | b. | | | | | |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a. | | | | | |
| | | b. | | | | | |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a. | | | | | |
| | | b. | | | | | |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company | |
| | ☐ NA | |
| 5.2 | Parent Company's Dun & Bradstreet Number | |
| | ☐ NA | (9 digits) |

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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI FACILITY ID NUMBER |
|---|
| |
| Toxic Chemical, Category, or Generic Name |
| |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| 1.3 | Generic Chemical Name (Important: Complete **only** if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.) |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | |
|---|---|---|---|
| 3.1 | **Manufacture the toxic chemical:** | a. ☐ Produce<br>b. ☐ Import | If produce or import:<br>c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | **Process the toxic chemical:** | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. ☐ As an article component<br>d. ☐ Repackaging |
| 3.3 | **Otherwise use the toxic chemical:** | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☐ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | ☐ | (Enter two-digit code from instruction package.) |

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| |
| Toxic Chemical, Category, or Generic Name |
| |

## SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/ year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | ☐ NA | | | |
| 5.2 | Stack or point air emissions | ☐ NA | | | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name | | | | |
| 5.3.2 | Stream or Water Body Name | | | | |
| 5.3.3 | Stream or Water Body Name | | | | |
| 5.4 | Underground injections on-site | ☐ NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | ☐ NA | | | |
| 5.5.2 | Land treatment/ application farming | ☐ NA | | | |
| 5.5.3 | Surface impoundment | ☐ NA | | | |
| 5.5.4 | Other disposal | ☐ NA | | | |

☐ Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = 11
C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| |
| **Toxic Chemical, Category, or Generic Name** |
| |

## SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 | **Discharges to receiving streams or water bodies** (enter one name per box) | **A. Total Release** (pounds/year) (enter range code from instructions or estimate) | **B. Basis of Estimate** (enter code) | **C. % From Stormwater** |
|---|---|---|---|---|
| 5.3.__ | **Stream or Water Body Name** | | | |
| 5.3.__ | **Stream or Water Body Name** | | | |
| 5.3.__ | **Stream or Water Body Name** | | | |

## SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| | |

**6.1.B POTW Name and Location Information**

| 6.1.B.__ POTW Name | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

**If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Sections 5.3/6.1 page this is, here. [ ]**
**(example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 11 C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| |
| **Toxic Chemical, Category, or Generic Name** |
| |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2.___ Off-site EPA Identification Number (RCRA ID No.)

Off-Site Location Name

Street Address

City | County

State | Zip Code | Is location under control of reporting facility or parent company? ☐ Yes ☐ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2.___ Off-site EPA Identification Number (RCRA ID No.)

Off-Site Location Name

Street Address

City | County

State | Zip Code | Is location under control of reporting facility or parent company? ☐ Yes ☐ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box ☐ and indicate which Part II, Section 6.2 page this is, here. ☐ (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 11
C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| |
| **Toxic Chemical, Category, or Generic Name** |
| |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

☐ **Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.**

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes ☐ No ☐ |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes ☐ No ☐ |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes ☐ No ☐ |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes ☐ No ☐ |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes ☐ No ☐ |

**If additional copies of page 7 are attached, indicate the total number of pages in this box ☐ and indicate which page 7 this is, here. ☐ (example: 1, 2, 3, etc.)**

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
| --- |
| |
| Toxic Chemical, Category, or Generic Name |
| |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☐ **Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.**

Energy Recovery Methods [enter 3-character code(s)]

1 ☐ 2 ☐ 3 ☐ 4 ☐

## SECTION 7C. ON-SITE RECYCLING PROCESSES

☐ **Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.**

Recycling Methods [enter 3-character code(s)]

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐

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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| |
| Chemical, Category, or Generic Name |
| |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | *All quantity estimates can be reported using up to two significant figures.* | Column A 1991 (pounds/year) | Column B 1992 (pounds/year) | Column C 1993 (pounds/year) | Column D 1994 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released * | | | | |
| 8.2 | Quantity used for energy recovery on-site | | | | |
| 8.3 | Quantity used for energy recovery off-site | | | | |
| 8.4 | Quantity recycled on-site | | | | |
| 8.5 | Quantity recycled off-site | | | | |
| 8.6 | Quantity treated on-site | | | | |
| 8.7 | Quantity treated off-site | | | | |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | | | | |
| 8.9 | Production ratio or activity index | | | | |

| 8.10 | Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11. | | | |
|---|---|---|---|---|
| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
| 8.10.1 | | a. | b. | c. |
| 8.10.2 | | a. | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | YES ☐ | NO ☐ |
|---|---|---|---|

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

MS unit

M 30 ~~SHIELD~~ HELMET

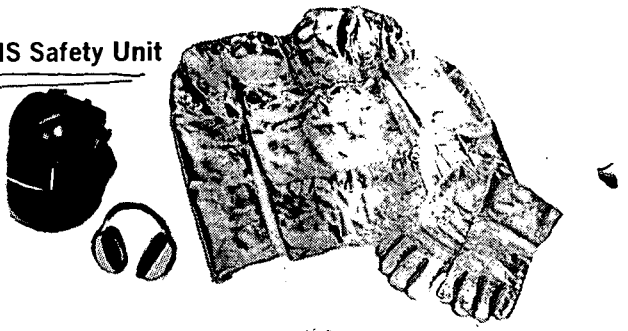
M 31 LENS PLATE SHADE #10 or #11

M 32 BODY SUIT

M 33 GLOVES

M 34 EAR MUFFS

**Type MS Safety Unit**



Protects wearer against heat and ultra-violet rays of the Plasma Flame and Arc Systems. Includes face shield, aluminized bib and pair of asbestos gloves. Ear muffs also furnished for noise reduction. Shipping Weight—7 pounds.

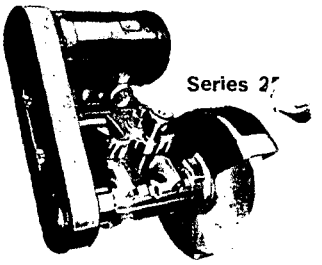
## SURFACE FINISHING

**Cat. Nos. 22, 23, 915-918, 921, 923; CP 121 & CP 124 Fusing Torch Kit**

Fuses self-fluxing alloy coatings. Kit includes torch handle, numbers 2, 3 and 4 heating tips, 12" extension, one pair of check valves, oxygen Y connection, acetylene Y connection, oxygen hose and acetylene hose. Shipping Weight—12 pounds.

**Dumore Tool Post Grinders**

Versatile grinders designed for use on existing shop equipment. Grinds sprayed metals to a finish so precise that operations accurate to .0001" can be easily performed.



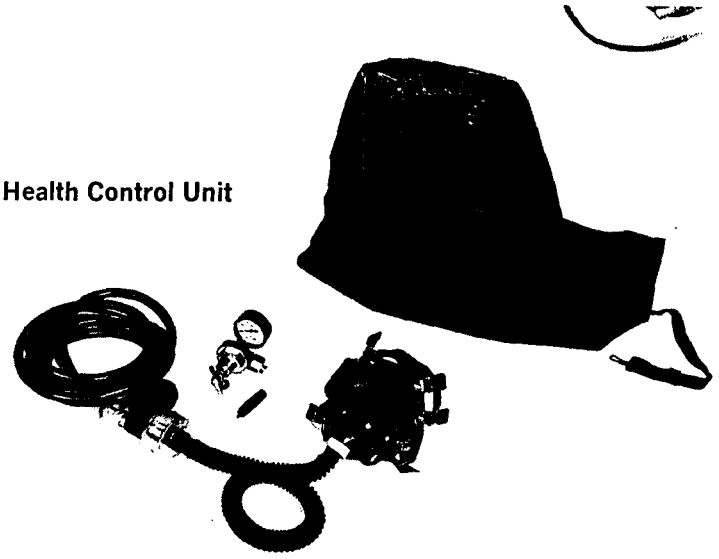
Series 2[illegible]

**Series 25**—Recommended for heavy external grinding. Wheel capacity: 12" x 1½" x 1¼". Motor: 3 HP, 230 or 460 volts, 3-phase, 50/60 cycle, A.C. Must show required voltage on order. External grinding quill included. Shipping Weight—240 pounds.

**Series 12**—Recommended for large and heavy work, both internal and external. Wheel capacity: 8" x 3/4" x 3/4". Motor: 1 HP, 115, or or 230 volts, single-phase, 60 cycle only, A.C. (Also available in 230 or 460 volts, 3-phase, 50/60 cycle, A.C.) Must show required motor voltage on order. Includes external grinding quill; quills available for internal grinding down to 2⅜" diameters and up to 24" depths. Shipping Weight—184 pounds.

**Series 77**—Recommended where most work is either external or heavy internal. Wheel capacity: 6" x 1/2" x 1/2". Motor 1/2 HP, 115 or 230 volts, single-phase, 60 cycle only, A.C. (Also available in 230 or 460 volts, 3-phase, 50/60 cycle, A.C.) Must show required motor voltage on order. Includes external grinding quill; quills available for internal grinding down to 1⅝" diameters and up to 15" depths. Shipping Weight—95 pounds.

**Health Control Unit**



Gives complete operator protection while blasting or flame spraying. Has U.S. Bureau of Mines approval when manufacturer's instructions are followed. Consists of:

**Cat. No. 26**—Mask with face piece, connecting tube, filter cartridge holder, filter cartridge, air flow valve, quick release connection, web belt and fifteen foot air hose complete with fittings.
**Cat. No. 27**—Heavy duty, rubberized blast hood.
**Cat. No. 29**—Pressure regulator complete with gauge.
**Cat. No. 30**—Relief valve preset to blow off at 16 psi.
Shipping Weight —18 pounds.

**METCO Grinding Wheels**

**For Series 25, 12 and 77 Grinders**

Precision balanced wheels have the correct bonding and grain structure for grinding sprayed metals. Available in three types and four sizes. See METCO Flame Spray Handbooks for types to suit your needs. Shipping Weights—5" wheel—1 pound; 6" wheel—2 pounds; 8" wheel—4 pounds; 12" wheel—15 pounds.

SULZER CORRESPONDENCE 1995

**SULZER METCO**

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone: (516) 334-1300
Fax: (516) 338-2488

July 31, 1995

EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348

Subject: Toxic Chemical Release Inventory
Reporting Form R

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our Prospect Avenue and Miller Place facilities.

Please note that as of September 30, 1994, the three properties on Long Island owned by the Perkin-Elmer Corporation, doing business as the Metco division of Perkin-Elmer, were sold by Perkin-Elmer to Sulzer Metco (US), Inc., a Delaware Corporation having a principal place of business at the Prospect Avenue facility. We hope that our delayed reporting has not caused any inconvenience.

Please call me if you have any questions or require clarification.

Very truly yours,

Joseph D. Reardon, Ph.D.
Global Quality
Phone: (516) 338-2316
FAX: (516) 338-2336

JR/clc
Enclosure

c: Mario H. Kyd, Sulzer Metco
Daniel Moraschetti, Sulzer Metco
Constance L. Conroy, Sulzer Metco



METCO AMDRY

# SULZER METCO

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone: (516) 334-1300
Fax: (516) 338-2488

July 31, 1995

Mr. William Miner
New York Emergency Response Commission
New York State Department of Environmental Consernvation
Bureau of Spill Prevention and Emergency Response
50 Wolf Road/Room 340
Albany, NY 12233-3510

Subject: Toxic Chemical Release Inventory
Reporting Form R

Dear Mr. Miner:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our Prospect Avenue and Miller Place facilities.

Please note that as of September 30, 1994, the three properties on Long Island owned by the Perkin-Elmer Corporation, doing business as the Metco division of Perkin-Elmer, were sold by Perkin-Elmer to Sulzer Metco (US), Inc., a Delaware Corporation having a principal place of business at the Prospect Avenue facility. We hope that our delayed reporting has not caused any inconvenience.

Please call me if you have any questions or require clarification.

Very truly yours,

JD Reardon

Joseph D. Reardon, Ph.D.
Global Quality
Phone: (516) 338-2316
FAX: (516) 338-2336

JR/clc
Enclosure

c: Mario H. Kyd, Sulzer Metco
Daniel Moraschetti, Sulzer Metco
Constance L. Conroy, Sulzer Metco

AMDRY

# SULZER METCO

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone: (516) 334-1300
Fax: (516) 338-2488

July 31, 1995

State Emergency Response Commission
c/o State Emergency Management Office
Building 22, State Campus
Albany, NY 12226-5000

Subject: Toxic Chemical Release Inventory
Reporting Form R

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our Prospect Avenue and Miller Place facilities.

Please note that as of September 30, 1994, the three properties on Long Island owned by the Perkin-Elmer Corporation, doing business as the Metco division of Perkin-Elmer, were sold by Perkin-Elmer to Sulzer Metco (US), Inc., a Delaware Corporation having a principal place of business at the Prospect Avenue facility. We hope that our delayed reporting has not caused any inconvenience.

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JR/clc
Enclosure

c: Mario H. Kyd, Sulzer Metco
Daniel Moraschetti, Sulzer Metco
Constance L. Conroy, Sulzer Metco



METCO AMDRY

# SULZER METCO

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone: (516) 334-1300
Fax: (516) 338-2488

July 31, 1995

Local Emergency Planning Committee
c/o Civil Preparedness Office
140 15th Street
Mineola, NY 11501

Subject: Toxic Chemical Release Inventory
Reporting Form R

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our Prospect Avenue and Miller Place facilities.

Please note that as of September 30, 1994, the three properties on Long Island owned by the Perkin-Elmer Corporation, doing business as the Metco division of Perkin-Elmer, were sold by Perkin-Elmer to Sulzer Metco (US), Inc., a Delaware Corporation having a principal place of business at the Prospect Avenue facility. We hope that our delayed reporting has not caused any inconvenience.

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JR/clc
Enclosure

c: Mario H. Kyd, Sulzer Metco
Daniel Moraschetti, Sulzer Metco
Constance L. Conroy, Sulzer Metco



METCO AMDRY

RPT #311 NO HAZARDOUS CHEMICAL DUFFY AVENUE

1987

Certification (Read and Sign After Completing All Sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

THOMAS R. FISHER V.P. G.M.

Name and Official Title of Owner/Operator OR Owner/Operator's Authorized Representative

Thomas R Fisher 10/27/88

Signature Date Signed

Duffy Avenue

**TIER ONE** Emergency & Hazardous Chemical Inventory

Aggregate Information By Hazard Type

For Official Use Only — ID #: _____ Date Received: _____

Reporting Period From January 1, to December 31, 1987

Facility Identification:

Name: METCO DIVISION PERKIN-ELMER, HICKSVILLE
Address: DUFFY AVENUE WAREHOUSE
325 DUFFY AVENUE
City: HICKSVILLE, NY 11801

SIC Code: 3399 Dun & Bradstreet #:

Owner/Operator Information:

Name: MR. ABE TEICHER, SAFETY OFFICER
Address: METCO/PERKIN ELMER, HICKSVILLE
325 DUFFY AVENUE
City: HICKSVILLE, NY 11801
Phone: (516)334-1300

Emergency Contacts:

Name: MR. ABE TEICHER
Title: MANAGER, PLANT ENGINEERING
Phone: (516)334-1300
24 Hr Phone: ( ) -

Name: MR. ABE TEICHER
Title: SAFETY OFFICER
Phone: (516)334-1300
24 Hr Phone: ( ) -

Physical Hazards

| Hazard Type | Max Amount* | Average Daily Amount* | Number Of Days On-Site | General Location |
|---|---|---|---|---|
| Fire | 00 | 00 | 000 | DUFFY AVENUE HICKSVILLE, NY |
| Sudden Release of Pressure | 00 | 00 | 000 | DUFFY AVENUE HICKSVILLE, NY |
| Reactivity | 00 | 00 | 000 | DUFFY AVENUE HICKSVILLE, NY |

Health Hazards

| | | | | |
|---|---|---|---|---|
| Immediate (Acute) | 00 | 00 | 000 | DUFFY AVENUE HICKSVILLE, NY |
| Delayed (Chronic) | 00 | 00 | 000 | DUFFY AVENUE HICKSVILLE, NY |

Certification (Read and Sign After Completing All Sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

THOMAS R. FISHER V.P., G.M.

Name and Official Title of Owner/Operator OR Owner/Operator's authorized Representative

Thomas R Fisher 10/27/88

Signature Date Signed

* Reporting Ranges

| Range Value | Weight Range in Pounds From... | To... |
|---|---|---|
| 00 | 0 | 99 |
| 01 | 100 | 999 |
| 02 | 1,000 | 9,999 |
| 03 | 10,000 | 99,999 |
| 04 | 100,000 | 999,999 |
| 05 | 1,000,000 | 9,999,999 |
| 06 | 10,000,000 | 49,999,999 |
| 07 | 50,000,000 | 99,999,999 |
| 08 | 100,000,000 | 499,999,999 |
| 09 | 500,000,000 | 999,999,999 |
| 10 | 1 Billion | Over 1 Billion |

DUFFY AVENUE NO HAZARDOUS CHEMICALS

TIER TWO 1987

Certification (Read and Sign After Completing All Sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

THOMAS R. FISHER V.P., G.M.

Name and Official Title of Owner/Operator OR Owner/Operator's ~~authorized~~ Representative

Thomas R Fisher 10/27/88

Signature Date Signed

Optional At

[ ]

[ ]

T#5186 DART-

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) D01876842 PPW01/10/2008 Form Approved. OMB No. 2050-0039

| UNIFORM HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number |
|---|---|---|---|---|
| | NYD131318651 | 1 | (800) 483-3718 | 001876871 FLE |

5. Generator's Name and Mailing Address
Sulzer Metco US Inc
1101 Prospect Avenue
Westbury, NY 11590
Generator's Phone: 516 338-2303

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Clean Harbors Environmental Services Inc — U.S. EPA ID Number: MAD039322260

7. Transporter 2 Company Name: Dart Trucking Company, Inc — U.S. EPA ID Number: OHD009865825

8. Designated Facility Name and Site Address
Spring Grove Resource Recovery Inc
4879 Spring Grove Avenue
Cincinnati, OH, 45232
Facility's Phone: (513) 681-5738
U.S. EPA ID Number: OHD000816629

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes | | |
|---|---|---|---|---|---|---|---|---|
| X | 1. UN1755, WASTE CHROMIC ACID SOLUTION, 8, PG II | 1 | DF | 482 | P | D002 D008 | D006 | D007 |
| | 2. | | | | | | | |
| | 3. | | | | | | | |
| | 4. | | | | | | | |

SULZER METCO (US) INC.
MAY 12 2008
EHS DEPARTMENT

14. Special Handling Instructions and Additional Information
1. CH189142 ERG#154
1X55
DEPE#05195 DECAL #082663

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Jim Kourkoumelis — Signature: [signature] — Month 4 Day 21 Year 08

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: MANUEL GARCIA — Signature: [signature] — Month 4 Day 21 Year 08
Transporter 2 Printed/Typed Name: Calvin Bower — Signature: [signature] — Month 04 Day 22 Year 08

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 11141 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Sheila Field — Signature: [signature] — Month 4 Day 24 Year 08

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.
Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.
DESIGNATED FACILITY TO GENERATOR

T#2180

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) D31878842 PRN01/10/2008 Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: NYD131318651
2. Page 1 of 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 001876871 FLE

5. Generator's Name and Mailing Address
Sulzer Metco US Inc
1101 Prospect Avenue
Westbury, NY 11590
Generator's Phone: 516 338-2303

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Clean Harbors Environmental Services Inc
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Spring Grove Resource Recovery Inc
4379 Spring Grove Avenue
Cincinnati, OH, 45232
Facility's Phone: (513) 681-6738
U.S. EPA ID Number: OHD000816629

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes | | |
|---|---|---|---|---|---|---|---|---|
| X | 1. UN1755, WASTE CHROMIC ACID SOLUTION, 8, PG II | 1 | DF | 482 | P | D002 D008 | D006 | D007 |
| | 2. | | | | | | | |
| | 3. | | | | | | | |
| | 4. | | | | | | | |

14. Special Handling Instructions and Additional Information
1. CH169142 ERG#154

[illegible]

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [signature] Month 4 Day 21 Year 08

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: MANUEL GALEIN Signature: [signature] Month 4 Day 21 Year 08
Transporter 2 Printed/Typed Name Signature Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05). Previous editions are obsolete.

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

GENERATOR'S INITIAL COPY

## U.S. EPA Form 8700-22

Read all instructions before completing this form.

1. This form has been designed for use on a 12-pitch (elite) typewriter which is also compatible with standard computer printers; a firm point pen may also be used—press down hard.
2. Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, and disposal facilities to complete this form (EPA Form 8700–22) and, if necessary, the continuation sheet (EPA Form 8700–22A) for both inter- and intrastate transportation of hazardous waste.

Public reporting burden for this collection of information is estimated to average: 30 minutes for generators, 10 minutes for transporters, and 25 minutes for owners or operators of treatment, storage, and disposal facilities. This includes time for reviewing instructions, gathering data, completing, reviewing and transmitting the form. Any correspondence regarding the PRA burden statement for the manifest must be sent to the Director of the Collection Strategies Division in EPA's Office of Information Collection at the following address: U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW., Washington, DC 20460. Do not send the completed form to this address.

### I. Instructions for Generators

*Item 1. Generator's U.S. EPA Identification Number*

Enter the generator's U.S. EPA twelve digit identification number, or the State generator identification number if the generator site does not have an EPA identification number.

*Item 2. Page 1 of ___*

Enter the total number of pages used to complete this Manifest (*i.e.*, the first page (EPA Form 8700-22) plus the number of Continuation Sheets (EPA Form 8700-22A), if any).

*Item 3. Emergency Response Phone Number*

Enter a phone number for which emergency response information can be obtained in the event of an incident during transportation. The emergency response phone number must:

1. Be the number of the generator or the number of an agency or organization who is capable of and accepts responsibility for providing detailed information about the shipment;
2. Reach a phone that is monitored 24 hours a day at all times the waste is in transportation (including transportation related storage); and
3. Reach someone who is either knowledgeable of the hazardous waste being shipped and has comprehensive emergency response and spill cleanup/incident mitigation information for the material being shipped or has immediate access to a person who has that knowledge and information about the shipment.

**Note:** Emergency Response phone number information should only be entered in Item 3 when there is one phone number that applies to all the waste materials described in Item 9b. If a situation (*e.g.*, consolidated shipments) arises where more than one Emergency Response phone number applies to the various wastes listed on the manifest, the phone numbers associated with each specific material should be entered after its description in Item 9b.

*Item 4. Manifest Tracking Number*

This unique tracking number must be pre-printed on the manifest by the forms printer.

*Item 5. Generator's Mailing Address, Phone Number and Site Address*

Enter the name of the generator, the mailing address to which the completed manifest signed by the designated facility should be mailed, and the generator's telephone number. Note, the telephone number (including area code) should be the normal business number for the generator, or the number where the generator or his authorized agent may be reached to provide instructions in the event the designated and/or alternate (if any) facility rejects some or all of the shipment. Also enter the physical site address from which the shipment originates only if this address is different than the mailing address.

*Item 6. Transporter 1 Company Name, and U.S. EPA ID Number*

Enter the company name and U.S. EPA ID number of the first transporter who will transport the waste. Vehicle or driver information may not be entered here.

*Item 7. Transporter 2 Company Name and U.S. EPA ID Number*

If applicable, enter the company name and U.S. EPA ID number of the second transporter who will transport the waste. Vehicle or driver information may not be entered here.

If more than two transporters are needed, use a Continuation Sheet(s) (EPA Form 8700-22A).

*Item 8. Designated Facility Name, Site Address, and U.S. EPA ID Number*

Enter the company name and site address of the facility designated to receive the waste listed on this manifest. Also enter the facility's phone number and the U.S. EPA twelve digit identification number of the facility.

*Item 9. U.S. DOT Description (Including Proper Shipping Name, Hazard Class or Division, Identification Number, and Packing Group)*

*Item 9a.* If the wastes identified in Item 9b consist of both hazardous and nonhazardous materials, then identify the hazardous materials by entering an "X" in this Item next to the corresponding hazardous material identified in Item 9b.

*Item 9b.* Enter the U.S. DOT Proper Shipping Name, Hazard Class or Division, Identification Number (UN/NA) and Packing Group for each waste as identified in 49 CFR 172. Include technical name(s) and reportable quantity references, if applicable.

**Note:** If additional space is needed for waste descriptions, enter these additional descriptions in Item 27 on the Continuation Sheet (EPA Form 8700-22A). Also, if more than one Emergency Response phone number applies to the various wastes described in either Item 9b or Item 27, enter applicable Emergency Response phone numbers immediately following the shipping descriptions for those Items.

*Item 10. Containers (Number and Type)*

Enter the number of containers for each waste and the appropriate abbreviation from Table I (below) for the type of container.

TABLE I.--TYPES OF CONTAINERS

| | |
|---|---|
| BA = Burlap, cloth, paper, or plastic bags. | DT = Dump truck. |
| CF = Fiber or plastic boxes, cartons, cases. | DW = Wooden drums, barrels, kegs. |
| CM = Metal boxes, cartons, cases (including roll-offs). | HG = Hopper or gondola cars. |
| CW = Wooden boxes, cartons, cases. | TC = Tank cars. |
| CY = Cylinders. | TP = Portable tanks. |
| DF = Fiberboard or plastic drums, barrels, kegs. | TT = Cargo tanks (tank trucks). |
| DM = Metal drums, barrels, kegs. | |

*Item 11. Total Quantity*

Enter, in designated boxes, the total quantity of waste. Round partial units to the nearest whole unit, and *do not* enter decimals or fractions. To the extent practical, report quantities using appropriate units of measure that will allow you to report quantities with precision. Waste quantities entered should be based on actual measurements or reasonably accurate estimates of actual quantities shipped. Container capacities are not acceptable as estimates.

*Item 12. Units of Measure (Weight/Volume)*

Enter, in designated boxes, the appropriate abbreviation from Table II (below) for the unit of measure.

TABLE II.--UNITS OF MEASURE

| | |
|---|---|
| G = Gallons (liquids only). | N = Cubic Meters. |
| K = Kilograms. | P = Pounds. |
| L = Liters (liquids only). | T = Tons (2000 Pounds). |
| M = Metric Tons (1000 kilograms). | Y = Cubic Yards. |

**Note:** Tons, Metric Tons, Cubic Meters, and Cubic Yards should only be reported in connection with very large bulk shipments, such as rail cars, tank trucks, or barges.

*Item 13. Waste Codes*

Enter up to six federal and state waste codes to describe each waste stream identified in Item 9b. State waste codes that are not redundant with federal codes must be entered here, in addition to the federal waste codes which are most representative of the properties of the waste.

*Item 14. Special Handling Instructions and Additional Information*

1. Generators may enter any special handling or shipment-specific information necessary for the proper management or tracking of the materials under the generator's or other handler's business processes, such as waste profile numbers, container codes, bar codes, or response guide numbers. Generators also may use this space to enter additional descriptive information about their shipped materials, such as chemical names, constituent percentages, physical state, or specific gravity of wastes identified with volume units in Item 12.
2. This space may be used to record limited types of federally required information for which there is no specific space provided on the manifest, including any alternate facility designations; the manifest tracking number of the original manifest for rejected wastes and residues that are re-shipped under a second manifest; and the specification of PCB waste descriptions and PCB out-of-service dates required under 40 CFR 761.207. Generators, however, cannot be required to enter information in this space to meet state regulatory requirements.

*Item 15. Generator's/Offeror's Certifications*

1. The generator must read, sign, and date the waste minimization certification statement. In signing the waste minimization certification statement, those generators who have not been exempted by statute or regulation from the duty to make a waste minimization certification under section 3002(b) of RCRA are also certifying that they have complied with the waste minimization requirements. The Generator's Certification also contains the required attestation that the shipment has been properly prepared and is in proper condition for transportation (the shipper's certification). The content of the shipper's certification statement is as follows: "I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent." When a party other than the generator prepares the shipment for transportation, this party may also sign the shipper's certification statement as the offeror of the shipment.
2. Generator or Offeror personnel may preprint the words, "On behalf of" in the signature block or may hand write this statement in the signature block prior to signing the generator/offeror certification, to indicate that the individual signs as the employee or agent of the named principal.

**Note:** All of the above information except the handwritten signature required in Item 15 may be pre-printed.

# Land Disposal Restriction Notification Form

Print Date: 04/18/2008

**MANIFEST INFORMATION**

**Generator:** Sulzer Metco US Inc
**Address:** 1101 Prospect Avenue
Westbury, NY 11590
**EPA ID#:** N Y D 1 3 1 3 1 8 6 5 1

**Manifest No**
001876871FLE
**Sales Order No:** D31878842

**LINE ITEM INFORMATION**

| Line Item: | Page No: | Profile No: | Treatability Group: | LDR Disposal Category: |
|---|---|---|---|---|
| 1 | 1 | CH189142 | WASTEWATER | 2 : This is subject to LDR. |

| EPA Waste Codes | EPA Waste Subcategory |
|---|---|
| D002 | Corrosive Characteristic |
| D006 | Toxicity characteristic for Cadmium |
| D007 | Toxicity Characteristic for Chromium |
| D008 | Toxicity Characteristic for Lead |

**LDR Chemical Data**

| Chemical | Underlying Hazardous Constituents | Constituents of Concern | Contaminants Subject to Treatment |
|---|---|---|---|
| CADMIUM | Y | N | N |
| Chromium | Y | N | N |
| LEAD | Y | N | N |

| Certification | Applies to Manifest Line Items |
|---|---|
| Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268. | 1 |

CleanHarbors®
ENVIRONMENTAL SERVICES, INC.

# Land Disposal Restriction Notification Form



Print Date: 04/18/2008

**MANIFEST INFORMATION**

**Generator:** Sulzer Metco US Inc
**Address:** 1101 Prospect Avenue
Westbury, NY 11590
**EPA ID#:** N Y D 1 3 1 3 1 8 6 5 1

**Manifest No**
001876871FLE
**Sales Order No:** D31878842

**Waste analysis data, where available, is attached**

**Signature:** [signature]

**Print Name:** Jim KourKoumelis

**Title:** Hazardous Waste Coordinator

**Date:** 4/21/08

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United States Environmental Protection Agency

# FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| **Toxic Chemical, Category, or Generic Name** |
| Nickel Powder |

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 93

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?

[ ] Yes (Answer question 2.2; Attach substantiation forms)  [X] No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy: [ ] Sanitized [X] Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official

Joe Macri, Manager Facilities and Transportation

Signature: Joe Macri

Date Signed: June 30, 1994

**SECTION 4. FACILITY IDENTIFICATION**

4.1

Facility or Establishment Name: Metco Division Perkin-Elmer Corporation

TRI Facility ID Number: 11801PRKNL220MI

Street Address: 220 Miller Place

City: Hicksville

County: Nassau

State: New York

Zip Code: 11801

Mailing Address (if different from street address): 1101 Prospect Avenue

City: Westbury

State: New York

Zip Code: 11590

PUT LABEL HERE

EPA
United States Environmental Protection Agency

# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | | | b. ☒ Part of a facility | | |
| 4.3 | Technical Contact | Name: Joe Macri | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.4 | Public Contact | Name: Joe Macri | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.5 | SIC Code (4-digit) | a. 3399 | b. | c. | d. | e. | f. |
| 4.6 | Latitude and Longitude | Latitude | | | Longitude | | |
| | | Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| | | 086 | 13 | 00 | 003 | 47 | 00 |

| | | |
|---|---|---|
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a. 05-773-1663<br>b. |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a. NYD981558570<br>b. |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a. N/A<br>b. |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a. N/A<br>b. |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company | ☐ NA: Perkin-Elmer Corporation |
| 5.2 | Parent Company's Dun & Bradstreet Number | ☐ NA (9 digits): 00-118-4480 |

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United States Environmental Protection Agency

# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440-02-0 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | Nickel |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.) |
| | N/A |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers,letters, spaces, and punctuation.) |
| | N/A |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | If produce or import: |
|---|---|---|---|
| 3.1 | Manufacture the toxic chemical: | a. ☐ Produce<br>b. ☐ Import | c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | Process the toxic chemical: | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. [X] As an article component<br>d. [X] Repackaging |
| 3.3 | Otherwise use the toxic chemical: | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☐ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 | (Enter two-digit code from instruction package.) |

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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/ year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | [X] NA | | | |
| 5.2 | Stack or point air emissions | [ ] NA | A | C | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name<br>N/A | | | | |
| 5.3.2 | Stream or Water Body Name<br>N/A | | | | |
| 5.3.3 | Stream or Water Body Name<br>N/A | | | | |
| 5.4 | Underground injections on-site | [X] NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | [X] NA | | | |
| 5.5.2 | Land treatment/ application farming | [X] NA | | | |
| 5.5.3 | Surface impoundment | [X] NA | | | |
| 5.5.4 | Other disposal | [X] NA | | | |

[ ] Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 Discharges to receiving streams or water bodies (enter one name per box) | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |
| 5.3.__ Stream or Water Body Name<br>N/A | | | |

## SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| N/A | |

**6.1.B POTW Name and Location Information**

| 6.1.B.__ POTW Name | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

**If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Sections 5.3/6.1 page this is, here. [ ]**
**(example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds
C = 500 - 999 pounds

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11801PRKNL220MI

Toxic Chemical, Category, or Generic Name: Nickel Powder

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2.__ Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: Loni-Jo Metal Corporation

Street Address: 70 Kinkel Street

City: Westbury

County: Nassau

State: New York

Zip Code: 11590

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 31,000 | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

### SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2.__ Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: N/A

Street Address:

City:

County:

State:

Zip Code:

Is location under control of reporting facility or parent company? [ ] Yes [ ] No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Section 6.2 page this is, here. [ ] (example: 1, 2, 3, etc.)**

Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| **Toxic Chemical, Category, or Generic Name** |
| Nickel Powder |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] **Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.**

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes [ ] No [ ] |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes [ ] No [ ] |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes [ ] No [ ] |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes [ ] No [ ] |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes [ ] No [ ] |

**If additional copies of page 7 are attached, indicate the total number of pages in this box [ ] and indicate which page 7 this is, here. [ ] (example: 1, 2, 3, etc.)**

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.**

Energy Recovery Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ]

## SECTION 7C. ON-SITE RECYCLING PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.**

Recycling Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 [ ]

EPA
United States Environmental Protection Agency

# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | *All quantity estimates can be reported using up to two significant figures.* | Column A 1992 (pounds/year) | Column B 1993 (pounds/year) | Column C 1994 (pounds/year) | Column D 1995 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released * | 0 | 0 | 0 | 0 |
| 8.2 | Quantity used for energy recovery on-site | 0 | 0 | 0 | 0 |
| 8.3 | Quantity used for energy recovery off-site | 0 | 0 | 0 | 0 |
| 8.4 | Quantity recycled on-site | 0 | 0 | 0 | 0 |
| 8.5 | Quantity recycled off-site | 11900 | 31,000 | 31,000 | 31,000 |
| 8.6 | Quantity treated on-site | 0 | 0 | 0 | 0 |
| 8.7 | Quantity treated off-site | 0 | 0 | 0 | 0 |

| | | |
|---|---|---|
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | N/A |
| 8.9 | Production ratio or activity index | .89 |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | W19 | a. T04 | b. T06 | c. |
| 8.10.2 | W39 | a. T04 | b. T10 | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | YES | NO |
|---|---|---|---|
| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | | X |

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

# METCO CLEANING SOLVENT

## A NON-FLAMMABLE SOLVENT ESPECIALLY PREPARED FOR DEGREASING AND CLEANING METAL SURFACES PRIOR TO THERMAL SPRAYING.

**INSTRUCTIONS:**
Use cold. Do not use for vapor phase degreasing.

Wipe or brush, using rags or brush.

Do not pour used solvent back in can.

Do not use on rubber or plastics.

Do not use in oxygen systems.

Do not contaminate with water.

Do not vaporize in presence of ignition sources.

## CONTENTS 1 GALLON U.S.

**HAZARD NOTICE:** This material is for the thermal spraying process. Consult the METCO Instruction Manual, the Material Safety Data Sheet, and applicable Federal and local jurisdiction safety and health regulations before utilizing this product. This product should not be ingested; inhalation and skin contact should be avoided. Local ventilation, skin and respiratory protection should be used during handling. Good housekeeping and personal hygiene should be practiced. Some individuals may show unusual sensitivity to exposure. Failure to observe proper practices may result in health hazards.

**FOR EMERGENCY ASSISTANCE CALL**
**~~CALL~~ CHEMTREC - DAY OR NIGHT**
**1-800-424-9300**

**HARMFUL OR FATAL IF INHALED. HARMFUL OR FATAL IF SWALLOWED.**
**CONTAINS 1,1,1-TRICHLOROETHANE.**
**USE ONLY WITH ADEQUATE VENTILATION. FOR INDUSTRIAL USE ONLY.**

**Specific Effects Of Overexposure:**
**1,1,1-Trichloroethane:** Hazard by inhalation, ingestion, skin and eye contact. Inhalation may cause an anesthetic effect and has been shown to cause pathological changes in the liver and lungs of some animal species. Inhalation or ingestion may produce symptoms of dizziness, drowsiness, distorted perceptions, motor activity changes, irritability, aggression, diarrhea, nausea, vomiting or other gastrointestinal tract changes. Narcotic in high concentrations. Cardiac sensitization can occur in high exposures. Long term overexposure may cause liver/kidney damage. Skin contact may cause irritation, defatting of the skin causing redness and scaliness. Eye contact may produce severe irritation.
**Target Organs:** Cardiovascular system, Central nervous system, gastrointestinal tract, liver, kidney, skin, eyes.

**In Case of Fire:**
Extinguishing Media: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or foam).
Unusual Fire and Explosion Hazards: 1,1,1-Trichloroethane is moderately flammable at higher temperatures; no flash point when tested in conventional closed tester at ~~ordinary~~ temperatures.
Special Fire Fighting Procedures: Fire fighters should wear a NIOSH/MSHA approved pressure-demand, self-contained breathing apparatus for possible exposure to hydrogen chloride and possible traces of phosgene. When heated to decomposition can emit highly toxic phosgene, hydrogen chloride and chlorine. May also be decomposed slowly by contact with water to hydrogen chloride.

**In Case of Spill or Leak:**
Immediately evacuate the area. Unprotected personnel should move upwind of spill. Only personnel equipped with proper respirator and skin/eye protection should be permitted in area. Take precautions as necessary to prevent contamination of ground and surface waters.

**Special Protection Information:**
Adequate local/general ventilation should be provided when using this product. Appropriate respiratory, skin, eye and hand protection should be utilized when using this product.

**Special Precautions:**
Precautions to be Taken in Handling and Storing: Store away from incompatibles. Keep containers closed when not in use. Do not store in open, unlabeled or mislabeled containers. Do not transfer contents to bottles or other unlabeled containers. Store in a cool and dry area. Do not use in poorly ventilated or confined areas. DO NOT EXPOSE TO HEAT OR STORE ABOVE 120°F.
Other Precautions: Avoid oral ingestion and excessive skin contact. Clean hands thoroughly after using especially before eating. DO NOT FLAME CUT, BRAZE OR WELD EMPTY CONTAINERS.
KEEP CONTAINERS CLOSED WHEN NOT IN USE.
Waste Disposal Method: Dispose of the chemical materials and/or their containers in accordance with federal, state or local laws/regulations regarding disposal.

**USING THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD CLASSIFICATIONS, THIS PRODUCT'S HAZARD CLASSIFICATION IS:**

| | |
|---|---|
| HEALTH | 3 |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | See the MSDS for proper personal protective equipment. |

Flash Point: None at ordinary ROOM temperatures. ROOM TEMP?, (70° – 80° F)

UN2831, ORM-A

STP standard temp 77°F = 25°C

**WARNING:** Contains Methyl Chloroform, a substance that harms public health and environment by destroying ozone in the upper atmosphere.

*While this information is furnished in good faith, no guaranty is made as to accuracy. This material is for the Thermal Spraying Process, and relevant instructions should be consulted before use. The user assumes all risk in connection with the use of this material. METCO PERKIN-ELMER shall in no event be liable for special, incidental or consequential damages in connection with this information, or for any damage or injury caused by this material if used for any other purpose than the Thermal Spray Process, or if proper safety and health practices are not followed.*

standard pressure 1 ~~ATM~~ atm
760 mm mercury
14.7 psi

| Code | Waste minimization activity |
|---|---|

## RECYCLING ACTIVITY

W01 On-site beneficial use/reuse began during 1993

W02 Off-site beneficial use/reuse began during 1993

## SOURCE REDUCTION ACTIVITY

### GOOD OPERATING PRACTICES

W11 Began to segregate types of hazardous waste to make them more amenable to recycling

W12 Began to segregate (stopped combining) hazardous waste from non-hazardous waste (Note: for purposes of hazardous waste reporting, reduces volume of hazardous waste, but does not reduce total waste volume)

W13 Improved maintenance scheduling, recordkeeping, or procedures

W14 Changed production schedule to minimize equipment and feedstock changeovers

W19 Other changes in operating practices (Specify in Comments)

### INVENTORY CONTROL

W21 Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life

W22 Began to test outdated material--continue to use if still effective

W23 Eliminated shelf-life requirements for stable materials

W24 Instituted better labelling procedures

W25 Instituted clearinghouse to exchange materials that would otherwise be discarded

W29 Other (Specify in Comments)

### SPILL AND LEAK PREVENTION

W31 Improved storage or stacking procedures

W32 Improved procedures for loading, unloading, and t ransfer operations

W33 Installed overflow alarms or automatic shut-off valves

W34 Installed secondary containment

W35 Installed vapor recovery systems

W36 Implemented inspection or monitoring program of potential spill or leak sources

W39 Other (Specify in Comments)

### RAW MATERIAL MODIFICATIONS

W41 Increased purity of raw materials

W42 Substituted raw materials

W49 Other (Specify in Comments)

### PROCESS MODIFICATIONS

W51 Instituted closed-loop recycling

W52 Modified equipment, layout, or piping

W53 Changed process catalyst

W54 Instituted better controls on operating conditions (flow rate, temperature, pressure, residence time)

W55 Changed from small volume containers to bulk containers to minimize discarding of empty containers

W58 Other (Specify in Comments)

#### Cleaning and Degreasing

W59 Modified stripping/cleaning equipment

W60 Changed to mechanical stripping/cleaning devices (from solvents or other materials)

W61 Changed to aqueous cleaners (from solvents or other materials)

W62 Reduced the number of solvents used, to make waste more amenable to recycling

W63 Modified containment procedures for cleaning units

W64 Improved draining procedures

W65 Redesigned parts racks to reduce dragout

W66 Modified or installed rinse systems

W67 Improved rinse equipment design

W68 Improved rinse equipment operation

W71 Other (Specify in Comments)

# METCO *PERKIN ELMER*

## Material Safety Data Sheet

**METCO PERKIN-ELMER**

**1101 Prospect Avenue**
**PO Box 1006**
**Westbury, NY 11590-0201**
**Phone: (516) 334-1300**

**Product:** METCO SPRASTEEL 10 WIRE

**MSDS No.:** METCO / 50-226
**Revision No.:** 2
**Revision Date:** June 8, 1993
**Original Date of Issue:** September 7, 1987

**EMERGENCY CONTACT: CHEMTREC** 800-424-9300
**CALLS OUTSIDE THE UNITED STATES:** 202-483-7616

## SECTION 1 MATERIAL IDENTIFICATION

**Trade/Material Name:** METCO SPRASTEEL 10 WIRE

**Description:** Thermal Spray Metallic Wire

**Other Designation:** CARBON STEEL WIRE

## SECTION II COMPOSITION AND TOXICITY

| Composition | % | CAS# | OSHA PEL | ACGIH TLV | Toxicity |
|---|---|---|---|---|---|
| Iron | Min.99.5 | 7439-89-6 | 10 mg/m³ TWA total particulate $Fe_2O_3$ fume, as Fe | 5 mg/m³ TWA $Fe_2O_3$ fume, as Fe | |

* Indicates toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments & Reauthorization Act (SARA) & supplier notification requirements (40CFR Part 372).

** Contains no asbestos and <1% crystalline silica.

## SECTION III — PHYSICAL DATA

| | | | |
|---|---|---|---|
| **Boiling Point:** | N/A | **Specific Gravity ($H_2O$ = 1):** | 7.8 |
| **Vapor Pressure (mmHg):** | N/A | **Melting Point:** | 2800 - 2850° F |
| **Vapor Density (Air=1):** | N/A | **Percentage Volatiles:** | N/A |
| **Solubility in water (%):** | Negative | **Evaporation Rate:** | N/A |
| **Appearance and Odor:** | Wire, no odor | **pH of Solution:** | N/A |

## SECTION IV — FIRE AND EXPLOSION HAZARD DATA

| | | | | |
|---|---|---|---|---|
| **Flash Point (Method Used):** | NONE | **Flammable Limits:** **LEL %:** | N/A | **UEL%:** N/A |

**Extinguishing Media:** $CO_2$ or dry chemical extinguisher, do not use water.

**Special Fire Fighting Procedures:** Treat as a metallic fire. Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing if involved in a fire.

**Unusual Fire and Explosive Hazards:** Moderate fire hazard in the form of dust when exposed to flame. Iron may ignite if airborne in the presence of an ignition source.

## SECTION V — REACTIVITY DATA

**Material is stable. Hazardous polymerization will not occur.**

**Incompatibility (Materials to Avoid):** Chlorine, turpentine, oxidizers, acetylene, magnesium, active metals.

**Hazardous Decomposition Products:** Ozone and nitric oxide are formed by plasma flame (similar to welding fumes). This action is independent of metal powder.

## SECTION VI — HEALTH HAZARD DATA

| COMPONENTS | SUMMARY OF RISKS |
|---|---|
| IRON: | Hazard by inhalation. Inhalation may cause Siderosis (benign pneumoconiosis). |
| | Target Organ(s): Lungs. |

**Medical Conditions Which May be Aggravated by Contact:** Consult a physician.

**Primary Entry Route(s):** Inhalation.

## SECTION VI HEALTH HAZARD DATA CONTINUED

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

**Eye Contact:** Irritation.

**Skin Contact:** Possible irritation.

**Inhalation:** Irritation, pneumoconiosis.

**Ingestion:** Possible irritation.

**FIRST AID**

**Eye Contact:** Flush eye with sufficient amounts of water. If irritation persists, consult a physician.

**Skin Contact:** Wash with soap and water.

**Inhalation:** Expose to fresh air. Consult a physician if irritation or respiratory distress persists.

**Ingestion:** Consult a physician.

## SECTION VII SPILL, LEAK AND DISPOSAL PROCEDURES

**Spill/Leak Procedures:** Not applicable to wire.

**Waste Management and Disposal:** Empty product containers, product waste and cleaning media should be stored and disposed of according to the appropriate local, state and federal regulatory guidelines.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**PERSONAL PROTECTIVE EQUIPMENT**

**Goggles:** The following lens shades are recommended for the process indicated. Combustion spraying shade #5, plasma spraying up to 40 kW shade #9, 40-60 kW shade #10 and greater than 60 kW shade #11. Goggles may be appropriate during other phases of product handling.

**Gloves:** Aluminized gloves are to be worn during the plasma spray process. Rubber or other appropriate gloves may be worn as necessary during other phases of product handling to avoid excessive skin contact.

**Respirator:** A respirator approved by NIOSH with filter cartridges approved for dust/fumes/mists should be worn at all times during the thermal spray process to protect the operator from exposure to dust and fumes. Respirators may also be worn when product handling generates dust.

**Clothing/Equipment:** Ear protection must be worn when the operator is subjected to excessive noise levels. (Refer to the appropriate regulatory guidelines.) An aluminized apron is to be worn during the plasma spray process. Other appropriate protective clothing may be worn as necessary during product handling to avoid excessive contact with the skin.

## SECTION VIII SPECIAL PROTECTION INFORMATION CONTINUED

**WORKPLACE CONSIDERATIONS**

**Ventilation:** Product should be used with the appropriate local exhaust ventilation provided.

**Safety Stations:** Eye wash station(s) is/are recommended.

**Other:** Wash facilities are recommended.

## SECTION IX HANDLING AND STORAGE PRECAUTIONS

**Storage/Handling:** Store away from incompatibles. Store product containers in a well-ventilated, clean, cool and dry area. Store in a manner to minimize punctures and breakage of containers.

**Other Precautions:** Avoid ingestion, inhalation and excessive skin contact. Avoid contact of powder with water and oxidizers.

*While this information is furnished in good faith, no guaranty is made as to accuracy. This material is for the Thermal Spraying Process, and relevant instructions should be consulted before use. The user assumes all risk in connection with the use of this material. METCO PERKIN-ELMER shall in no event be liable for special, incidental or consequential damages in connection with this information, or for any damage or injury caused by this material if used for any other purpose than the Thermal Spray Process, or if proper safety and health practices are not followed.*

# METCOSEAL ST-1

## (THINNER)

**A SPECIAL THINNER USED WITH FINISHING TREATMENT OF THERMAL SPRAYED COATINGS.**

### INSTRUCTIONS

A thinner for use with certain METCOSEAL Coatings used in SULZER METCO Systems of Corrosion Prevention.

See SULZER METCO System Specifications and Instructions for full data on use.

NOTE: There are several METCOSEAL Thinners. Use this thinner where specifically called for on the METCOSEAL Label.

**HAZARD NOTICE:** This material is for the thermal spraying process. Consult the SULZER METCO Instruction Manual, the Material Safety Data Sheet, and applicable Federal and local jurisdiction safety and health regulations before utilizing this product. This product should not be ingested; inhalation and skin contact should be avoided. Local ventilation, skin and respiratory protection should be used during handling. Good housekeeping and personal hygiene should be practiced. Some individuals may show unusual sensitivity to exposure. Failure to observe proper practices may result in health hazards.

**FOR EMERGENCY ASSISTANCE CALL**
**CHEMTREC - DAY OR NIGHT**
**1-800-424-9300**

**WARNING FLAMMABLE. HARMFUL IF INHALED. HARMFUL OR FATAL IF SWALLOWED. USE ONLY WITH ADEQUATE VENTILATION. FOR INDUSTRIAL USE ONLY.**

**Specific Effects Of Overexposure:**
**Methyl Isobutyl Ketone:** Hazard by inhalation, ingestion, skin and eye contact. Inhalation and ingestion may cause irritation to the mucous membranes, headache, narcosis and possible coma. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Toluene:** Hazard by inhalation, ingestion, skin absorption, skin and eye contact. Inhalation, ingestion and skin absorption may cause fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, lacrimation, nervousness, muscle fatigue, insomnia, anemia leucopenia and enlarged liver may be found in rare cases. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Diisobutyl Ketone:** Hazard by inhalation, skin and eye contact. Inhalation may cause nose and throat irritation, headache and dizziness. Narcotic in high concentrations. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Isopropyl Alcohol Anhydrous:** Hazard by inhalation, skin and eye contact. Inhalation may cause irritation to the eyes and mucous membranes, drowsiness, dizziness and headache. Skin contact may cause dermatitis. Eye contact may cause irritation.
**Target Organs:** Respiratory system, central nervous system, liver, kidney, skin and eyes.

**In Case of Fire:**
Extinguishing Media: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or foam).
Unusual Fire and Explosion Hazards: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, open flames, or other sources of ignition. Closed containers may explode if exposed to extreme heat. Do not apply to hot surfaces.
Special Fire Fighting Procedures: Water spray may be ineffective. Water may be used to cool containers to prevent pressure buildup and possible explosion when exposed to extreme heat. If water is used, fog nozzles are preferable.
**In Case of Spill or Leak:**
Remove all sources of ignition (flames, hot surfaces, electrical or frictional sparks). Avoid breathing vapors. Ventilate area. Remove with inert absorbent and non-sparking tools. IMPORTANT: Hazardous product residue may be present after contents have been removed. Do not reuse empty package without commercial cleaning or reconditioning.
**Special Protection Information:**
Adequate local/general ventilation should be provided when using this product. Appropriate respiratory, skin, eye and hand protection should be utilized when using this product.
**Special Precautions:**
Precautions to be Taken in Handling and Storing: Store away from incompatibles. Keep containers closed when not in use. Do not store in open, unlabeled or mislabeled containers. Do not transfer contents to bottles or other unlabeled containers. Store in a cool and dry area. Do not use in poorly ventilated or confined areas. Do not store above 120°F.
Other Precautions: Containers should be grounded when pouring. Avoid free fall of liquid in excess of a few inches. DO NOT FLAME CUT, BRAZE OR WELD EMPTY CONTAINERS. KEEP CONTAINERS CLOSED WHEN NOT IN USE.
Waste Disposal Method: Dispose of the chemical materials and/or their containers in accordance with federal, state or local laws/regulations regarding disposal.

**USING THE NATIONAL PAINT AND COATINGS ASSOCIATION'S HAZARDOUS MATERIALS IDENTIFICATION SYSTEM, THIS PRODUCT'S HAZARD CLASSIFICATION IS:**

| | |
|---|---|
| HEALTH | ? |
| FLAMMABILITY | ? |
| REACTIVITY | ? |
| PERSONAL PROTECTION | See the MSDS for proper personal protective equipment. |

Flash Point: 40°F
UN1263 PAINT

**WARNING:** This product contains a chemical known to the STATE OF CALIFORNIA to cause cancer and/or reproductive harm.

*While this information is furnished in good faith, no guaranty is made as to accuracy. This material is for the Thermal Spraying Process, and relevant instructions should be consulted before use. The user assumes all risks in connection with the use of this material. SULZER METCO shall in no event be liable for special, incidental or consequential damages in connection with this information, or for any damage or injury caused by this material if used for any other purpose than the Thermal Spray Process, or if proper safety and health practices are not followed.*

September 15, 1998

Mr. Michael S. Lydon
Sulzer Metco (US) Inc.
1101 Prospect Ave.
Westbury, NY 11590-0201

Subject: Sump Remediation Work at the 325 Duffy Avenue Facility
Sulzer Metco (US) Inc., Hicksville, NY

Dear Mr. Lydon:

ARCADIS Geraghty and Miller, Inc. in association with GM Consulting Engineers, P.C. is pleased to provide Sulzer Metco (US) Inc. with the following scope of work. It has been developed based on the conclusions and recommendations discussed in the 325 Duffy Avenue Facility, Hicksville, New York Report dated April 14, 1998 by ARCADIS Geraghty & Miller, Inc. concerning the remediation of two indoor sumps.

## SCOPE OF WORK

ARCADIS Geraghty & Miller, Inc. in association with GM Consulting Engineers P.C. will subcontract and provide oversight to Trade-Winds Environmental Restoration, Inc. Our subcontractor will remove and replace two sumps located in the maintenance department. All sediments within sumps will be removed and drummed accordingly. The concrete slab above the sumps will be saw cut approximately 3 feet beyond the limits of the sumps. The concrete slab, along with the sump cover, will be removed. All pipes leading into the sumps will be cut on the outside of the sumps. An excavator will be used to excavate the soil around the sumps and lift the sumps above grade. The extent of the soil excavation will be determined based on odor and color of any impacted soil or until the limits of the excavation (to edge of saw cut and to approximately 7 feet below floor level). All excavated soil and concrete will be staged on two layers of plastic in an area designated by Sulzer Metco (US) Inc. Waste characterization samples will be collected and, based on the results, the soil will be disposed of accordingly. Once final approval is received from the disposal facility, ARCADIS Geraghty & Miller will prepare the waste characterization forms for Sulzer Metco (US) Inc. approval prior to transport and disposal of the soil. Sulzer Metco (US) Inc. will have final authority for all bills of lading and disposal manifests.

Endpoint samples will be collected from the bottom and 4 sides of each excavation and analyzed for priority pollutant metals on a 48-hour turnaround time. The excavations will be properly

barricaded with construction fencing and caution tape during excavation activities. When endpoint samples indicate that any impacted soils have been removed, the excavations will be backfilled with certified clean fill. The backfill shall be properly compacted prior to placement of the new sumps. Once the new sumps are in place, the piping connections will be made and sealed. The interior of each new sump will be coated with an impermeable liner. At this stage, a constant head test will be performed on each sump to check for leaks. If the constant head test passes (no apparent leaks), the backfilling process will be completed. A second constant head test will be performed on each sump up to the manhole cover to check for leaks. The concrete floor around each excavation will be restored to existing conditions. In addition, new manhole covers will be provided.

ARCADIS Geraghty & Miller, Inc. will need to coordinate this excavation with production personnel to avoid any problems or delays. ARCADIS Geraghty & Miller, Inc. will not be responsible for removing any equipment or stored material from the areas to be excavated or provide a temporary bypass system. The excavation and sump removal will take approximately two days, the lab results will take another two days, and the restoration will take approximately three days. All equipment brought into the facility (i.e., excavator) will be equipped with exhaust scrubbers or run on propane fuel / compressed air to maintain air quality within the facility.

**Summary Letter Report**

Upon completion of this work, a draft letter report summarizing the work conducted will be submitted to Sulzer Metco (US) Inc. for review. Upon Sulzer Metco (US) Inc. approval, we will submit a final letter report.

ARCADIS GERAGHTY & MILLER

The total cost for performing this scope of work is $45,000, which is $7,000 for Geraghty & Miller fees and expenses, and $38,000 for subcontractor fees. This cost assumes that 50 tons of excavated soil will be disposed of as a hazardous waste. If the waste characterization analysis indicates that the soil is classified as non-hazardous, then the cost would be reduced by $9,000 which will result in a total cost of $36,000. All work will be performed in accordance with the Master Services Agreement dated May 21, 1998. If the scope of services, estimated costs, and time frames are acceptable to you, please indicate by signing and returning a copy of this scope of work. Should you have any questions or comments, please feel free to call Glenn Netuschil at (516) 391-5207.

Sincerely,

ARCADIS Geraghty & Miller, Inc.

Glenn Netuschil

Glenn Netuschil, P.E.
Project Engineer/Project Manager

GM Consulting Engineers, P.C.

Arnold S. Vernick

Arnold S. Vernick, P.E.
President

Michael L Cole

Authorized Representative of Sulzer Metco (US) Inc.

09-23-98

Date

## DISCLOSURE STATEMENT

The laws of New York State require that corporations which render engineering services in New York be owned by individuals licensed to practice engineering in the State. ARCADIS Geraghty & Miller, Inc. cannot meet that requirement. Therefore, all engineering services rendered to Sulzer Metco (US) Inc. in New York are being performed by GM Consulting Engineers, P.C., a New York professional corporation qualified to render professional engineering services in New York. There is no surcharge or extra expense associated with the rendering of professional services by GM Consulting Engineers, P.C.

ARCADIS Geraghty & Miller, Inc. is performing all those services which do not constitute professional engineering and is providing administrative and personnel support to GM Consulting Engineers, P.C. All matters relating to the administration of the contract with Sulzer Metco (US) Inc. are being performed by ARCADIS Geraghty & Miller, Inc. pursuant to its Amended and Restated Services Agreement with GM Consulting Engineers, P.C. All communications should be referred to the designated project manager at ARCADIS Geraghty & Miller, Inc.

**PERKIN ELMER**

The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

August 31, 1992

Certified Mail P 617 298 096

EPCRA Reporting Center
Suite 7103 South West
470 L'Enfant Plaza East
Washington, DC 20024
Attn: Toxic Chemical Relase Inventory

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions, please feel free to contact me at the above number.

Sincerely,

Joseph Macri

Joseph Macri
Manager Facilities

JM:ecb
Enclosures
cc: A.B. Mazzone
C.L. Conroy

Sara4.pwp

**PERKIN ELMER**

The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

August 31, 1992

Certified Mail P 617 298 095

Mr. William Miner
New York Emergency Response Commission
New York State Department of
Environmental Conservation
Bureau of Spill Prevention & Response
50 Wolf Road/Room 326
Albany, NY 12233-3510

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Mr. Miner:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions, please feel free to contact me at the above number.

Sincerely,

Joseph Macri

Joseph Macri
Manager Facilities

JM:ecb
Enclosures
cc: A.B. Mazzone
C.L. Conroy

Sara3.pwp

**PERKIN ELMER**

The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

August 31, 1992

Certified Mail P 617 298 097

State Emergency Response Commission
c/o State Emergency Management Office
Building 22, State Campus
Albany, NY 12226-5000

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions, please feel free to contact me at the above number.

Sincerely,

Joseph Macri

Joseph Macri
Manager Facilities

JM:ecb
Enclosures
cc: A.B. Mazzone
C.L. Conroy

Sara1.pwp

PERKIN ELMER

The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — PO. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

August 31, 1992

Certified Mail P 617 298 093

Local Emergency Planning Committee
c/o Civil Preparedness Office
140 15th Street
Mineola, NY 11501

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions, please feel free to contact me at the above number.

Sincerely,

Joseph Macri

Joseph Macri
Manager Facilities

JM:ecb
Enclosures
cc: A.B. Mazzone
C.L. Conroy

Sara2.pwp

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/yr) A.1 Reporting Ranges 1-10 / 11-499 / 500-999 | A. Total Transfers (pounds/yr) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 . | [ ] [ ] [ ] | | 6.1.1b | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 . | [ ] [ ] [ ] | | 6.2.1b | 6.2.1c M |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 . | [ ] [ ] [ ] | | 6.2.2b | 6.2.2c M |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 . | [ ] [ ] [ ] | | 6.2.3b | 6.2.3c M |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

☐ Not Applicable (NA) - Check if no on-site treatment is applied to any waste stream containing the chemical or chemical catagory

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a | 7.1b | 7.1c | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a | 7.2b | 7.2c | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a | 7.3b | 7.3c | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a | 7.4b | 7.4c | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a | 7.5b | 7.5c | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a | 7.6b | 7.6c | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a | 7.7b | 7.7c | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a | 7.8b | 7.8c | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a | 7.9b | 7.9c | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a | 7.10b | 7.10c | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal | | | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| | Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | | |
| M | _____ | _____ | ☐ + ☐ - _____ % | . | R |

# NORM / TENORM / EXEMPTED WASTE ADDENDUM

## *Generator Information*

EPA ID No.: **NA**

Generator Name: **Sulzer Metco** Site Name: **same**

Address: **1101 Prospect Ave** Address:

City, State, Zip: **Westbury, NY 11590** City, State, Zip:

## *Waste Information*

1. Does this waste contain NORM (Naturally Occurring Radioactive Material)? ☒ Yes ☐ No
2. Does this waste contain TENORM (Technologically Enhanced NORM)? ☒ Yes ☐ No
3. Does this waste contain Material Exempted from Disposal Restrictions? ☐ Yes ☒ No
4. Is this waste being generated at a facility that has, or formerly held, a U.S. Nuclear Regulatory Commission or Agreement State license? ☐ Yes ☒ No

The waste is to be disposed of at:

☒ Wayne Disposal Site #2 Landfill
49350 North I-94 Service Drive
Belleville, MI 48111

☐ Michigan Disposal Waste Treatment Plant
49350 North I-94 Service Drive
Belleville, MI 48111

Please describe the process generating the waste: **Collection of fines from plasma fusion production of powder coatings using zirconium materials with NORM content**

The estimated volume of waste to be disposed of is:

☐ Tons ☒ **22** Cubic Yards ☐ Drums
☐ Gallons ☐ Other, please specify:

The material is proposed to ship on the following dates: **monthly**

## *Generator Certification*

It is my understanding that the proposed shipments are subject to independent confirmation testing by the Michigan Department of Environmental Quality.

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

[signature] 5/9/08

Signature Date

Jim Kourkourelis Sulzer Metco

Printed Name Company

***Please note: EQ will forward a copy of this addendum, with the appropriate analysis to the Michigan Department of Environmental Quality, Waste and Hazardous Materials Division, Radiological Protection and Medical Waste Section.***

# WASTE CHARACTERIZATION REPORT

Tracking #_____

☐ ***I authorize EQ – The Environmental Quality Company to choose the appropriate facility and method of waste management from the technologies offered at the EQ facilities identified below.***

| | | | |
|---|---|---|---|
| ☐ **Michigan Disposal Waste Treatment Plant** (Stabilization and Treatment) | 49350 N. I-94 Service Drive, Belleville, MI 48111<br>Phone: 800-592-5489 Fax: 800-592-5329 | EPA ID # MID 000 724 831 |
| ☑ **Wayne Disposal, Inc. Site #2 Landfill** (Hazardous & PCB Waste Landfill) | 49350 N. I-94 Service Drive, Belleville, MI 48111<br>Phone: 800-592-5489 Fax: 800-592-5329 | EPA ID # MID 048 090 633 |
| ☐ **EQ Detroit, Inc.** (Stabilization, Wastewater Treatment) | 1923 Frederick Street, Detroit, MI 48211<br>Phone: 313-923-0080 Fax: 313-923-3375 | EPA ID # MID 980 991 566 |
| ☐ **EQ Resource Recovery, Inc.** (Solvent Recycling, Fuel Blending, WW Treatment) | 36345 Van Born Road, Romulus, MI 48174<br>Phone: 866-373-8357 Fax: 734-326-4033 | EPA ID # MID 060 975 844 |
| ☐ **EQ North Carolina** (Stabilization, Treatment, Labpack Decommissioning) | 1005 Investment Blvd, Apex, NC 27502<br>Phone: 919-363-4700 Fax: 919-363-4714 | EPA ID # NCD 982 170 292 |
| ☐ **EQ Florida, Inc.** (Drum Consolidation, Labpack Decommissioning) | 7202 East 8th Ave., Tampa, FL 33619<br>Phone: 813-623-5463 Fax: 813-628-0842 | EPA ID # FLD 981 932 494 |
| ☐ **EQ Transfer & Processing** (Drum Transfer/Universal Waste Handling) | 2000 Ferry Street, Detroit, MI 48211<br>Phone: 313-923-0080 Fax: 313-922-8419 | EPA ID # MIK 939 928 313 |
| ☐ **EQ Indianapolis** (Drum Transfer/Non-Hazardous Waste Processing) | 4000 West 10th Street, Indianapolis, IN 46222<br>Phone: 317-247-7160 Fax: 317-247-7170 | EPA ID # IND 161 049 309 |
| ☐ **EQ Atlanta** (Drum Transfer/Non-Hazardous Waste Processing) | 5600 Fulton Industrial Blvd SW, Atlanta, GA 30336<br>Phone: 404-494-3520 Fax: 404-494-3560 | EPA ID # GAR 000 039 776 |
| ☐ **EQ Augusta, Inc.** (Wastewater Treatment) | 3920 Goshen Industrial Blvd, Augusta, GA 30906<br>Phone: 706-771-9100 Fax: 706-771-9124 | EPA ID # GAR 000 011 817 |

**Waste Common Name:**

## *Section 1 – Generator & Customer Information*

SIC/NAICS* 325510

**Generator EPA ID #** _____

Generator Sulzer Metco

Facility Address 1101 Prospect Ave

City Westbury State NY Zip 11590

County Nassau

**Mailing Address** same

City _____ State _____ Zip _____

**Generator Contact** Jim Kourkoumelis

Title Waste Handler

Phone 516 338 2417 Fax _____

*For a list of NAICS codes, please refer to Section 9 of the EQ Resource Guide.

***Internal Use Only: EQ Division*** _____

EQ Customer No. _____

**Invoicing Company** Ecology Services Management Consultants LLC

Address ~~10220 Old Columbia Rd~~ Suite I

City Columbia State MD Zip 21046

Country USA

**Invoicing Contact** Paul Marshall

Phone 410 381 2600 Fax 410 381 2602

**Technical Contact** Paul Marshall

Phone 410 381 2600 Fax 410 381 2602

Mobile 4438712574 Pager _____

E-mail pmarshall@ecologyservices.com

## *Section 2 – Shipping & Packaging Information*

2.1) Shipping Volume & Frequency 22 x CY Bags

☐ One Time Only ☐ Year ☐ Quarter ☒ Month

2.2) DOT Shipping Name Radioactive material - excepted package - limited quantity of material UN2910 7

2.3) Is this waste surcharge exempt? ☐ Yes ☐ No

If yes, please attach a surcharge exemption form, found in Section 2 of the EQ Resource Guide.

2.4) Packaging **(check all that apply)**

☐ Bulk Solid ($Yd^3$ < 2000 lbs/$yd^3$)

☐ Bulk Solid (Ton >2000 lbs/$yd^3$)

☐ Bulk Liquids (Gallon)

☐ Totes, Size _____

☑ Cubic Yard Boxes/Bags

☑ Drums, Size 55

☐ Other (palletized, 5 gal. Pail, etc.) _____

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

## Section 3 – Physical Characteristics

3.1) Color White / Grey Powder 3.2) Odor None

3.3) Does this waste contain any "Potentially Odorous Constituents" as defined in the EQ Resource Guide? (Section 3) ☐ Yes ☒ No

| | | | | | |
|---|---|---|---|---|---|
| 3.4) Physical State at 70°F: | ☒ Solid | ☒ Dust/Powder | ☐ Liquid | ☐ Sludge | |
| 3.5) What is the pH of this waste? | ☐ ≤2 | ☐ 2.1-4.9 | ☐ 5-10 | ☐ 10.1-12.4 | ☐ ≥12.5 |
| 3.6) What is the flash point of this waste? | ☐ <90°F | ☐ 90-140°F | ☐ 140-199°F | ☒ >200°F | |
| 3.7) Does this waste contain? **(check all that apply)** | | ☐ None | ☐ Free Liquids | ☐ Oily Residue | ☐ Metal Fines |
| ☐ Biodegradable Sorbants | ☐ Amines | ☐ Ammonia | ☐ Water Reactive | ☐ Biohazard | ☐ Aluminum |
| ☐ Shock Sensitive Waste | ☐ Reactive Waste | ☒ Radioactive Waste | ☐ Explosives | ☐ Pyrophoric Waste | ☐ Isocyanates |
| ☐ Asbestos – non-friable | ☐ Asbestos – friable | ☐ Dioxins | ☐ Furans | | |

## Section 4 – Waste Composition and Generating Process

4.1) Describe the physical composition of the waste (i.e., soil, water, PPE, debris, key chemical compounds, etc.)

| | | | | | |
|---|---|---|---|---|---|
| Zicomium Oxide | 90 to 95 % | | | to | % |
| Yttrium Oxide | 5 to 10 % | | | to | % |
| | | | | **Total:** | **100%** |

4.2) Provide a *detailed* description of the process generating this waste (attach flow diagram if available).

Baghouse dust from collection of fines created during plasma fusion process that produces powder coating from zirconium materials that also contain NORM

## Section 5 – Is This Hazardous Waste?

*Please refer to Section 5 of the EQ Resource Guide for a list of waste codes*

| **As determined by 40 CFR, Part 261 and State Rules:** | | | **Please list applicable waste code(s):** |
|---|---|---|---|
| 5.1) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? | ☐ Yes | ☒ No | |
| 5.2) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? | ☐ Yes | ☒ No | |
| 5.3) Do any State Hazardous Waste Codes apply? | ☐ Yes | ☒ No | |
| 5.4) Is this waste intended for wastewater treatment? | ☐ Yes* | ☒ No | |

***If you answered 'no' to 5.1, 5.2, and 5.3, please skip to Section 7. *If you answered 'yes' to 5.4, please attach the Waste Characterization Report Addendum found in Section 7 of the EQ Resource Guide.***

## Section 6 – Hazardous Wastes

| | | |
|---|---|---|
| 6.1) Does this waste exceed Land Disposal Restriction levels? | ☐ Yes | ☐ No |
| 6.1a) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40 CFR 268.49? | ☐ Yes | ☐ No |
| 6.1b) Does this waste contain greater than 50% debris, by volume? (Debris is greater than 2.5 inches in size.) | ☐ Yes | ☐ No |
| 6.2) Is the waste an oxidizer (D001)? | ☐ Yes | ☐ No |
| 6.3) Does this waste contain reactive cyanide ≥ 250 ppm (D003)? | ☐ Yes | ☐ No |
| 6.4) Does this waste contain reactive sulfide ≥ 500 ppm (D003)? | ☐ Yes | ☐ No |

6.5) Please indicate which constituent concentrations are below or above the regulatory level. Please indicate the basis used in the determination. Either "Below" or "Above" **MUST** be checked for each constituent.

**Based On:** ☐ **Generator Knowledge** ☐ **Analysis*** ☐ **MSDS***

***Please attach a copy. Analysis or MSDS are required for EQFL Non-hazardous wastes.**

| Code | | Regulatory Level TCLP (mg/l) | Concentration (if above) | Code | | Regulatory Level TCLP (mg/l) | Concentration (if above) |
|---|---|---|---|---|---|---|---|
| D004 | Arsenic | 5 | ☐ Below ☐ Above ____ | D024 | m-Cresol | 200 | ☐ Below ☐ Above ____ |
| D005 | Barium | 100 | ☐ Below ☐ Above ____ | D025 | p-Cresol | 200 | ☐ Below ☐ Above ____ |
| D006 | Cadmium | 1 | ☐ Below ☐ Above ____ | D026 | Cresols | 200 | ☐ Below ☐ Above ____ |
| D007 | Chromium | 5 | ☐ Below ☐ Above ____ | D027 | 1,4-Dichlorobenzene | 7.5 | ☐ Below ☐ Above ____ |
| D008 | Lead | 5 | ☐ Below ☐ Above ____ | D028 | 1,2-Dicholoroethane | 0.5 | ☐ Below ☐ Above ____ |
| D009 | Mercury | 0.2 | ☐ Below ☐ Above ____ | D029 | 1,1-Dichloroethylene | 0.7 | ☐ Below ☐ Above ____ |
| D010 | Selenium | 1 | ☐ Below ☐ Above ____ | D030 | 2,4-Dinitrotoluene | 0.13 | ☐ Below ☐ Above ____ |
| D011 | Silver | 5 | ☐ Below ☐ Above ____ | D031 | Heptachlor | 0.008 | ☐ Below ☐ Above ____ |
| D012 | Endrin | 0.02 | ☐ Below ☐ Above ____ | D032 | Hexachlorobenzene | 0.13 | ☐ Below ☐ Above ____ |
| D013 | Lindane | 0.4 | ☐ Below ☐ Above ____ | D033 | Hexachlorobutadiene | 0.5 | ☐ Below ☐ Above ____ |
| D014 | Methoxychlor | 10 | ☐ Below ☐ Above ____ | D034 | Hexachloroethane | 3.0 | ☐ Below ☐ Above ____ |
| D015 | Toxaphene | 0.5 | ☐ Below ☐ Above ____ | D035 | Methyl Ethyl Ketone | 200 | ☐ Below ☐ Above ____ |
| D016 | 2,4-D | 10 | ☐ Below ☐ Above ____ | D036 | Nitrobenzene | 2 | ☐ Below ☐ Above ____ |
| D017 | 2,4,5-TP (Silvex) | 1 | ☐ Below ☐ Above ____ | D037 | Pentachlorophenol | 100 | ☐ Below ☐ Above ____ |
| D018 | Benzene | 0.5 | ☐ Below ☐ Above ____ | D038 | Pyridine | 5 | ☐ Below ☐ Above ____ |
| D019 | Carbon Tetrachloride | 0.5 | ☐ Below ☐ Above ____ | D039 | Tetrachloroethylene | 0.7 | ☐ Below ☐ Above ____ |
| D020 | Chlordane | 0.03 | ☐ Below ☐ Above ____ | D040 | Trichloroethylene | 0.5 | ☐ Below ☐ Above ____ |
| D021 | Chlorobenzene | 100 | ☐ Below ☐ Above ____ | D041 | 2,4,5-Trichlorophenol | 400 | ☐ Below ☐ Above ____ |
| D022 | Chloroform | 6.0 | ☐ Below ☐ Above ____ | D042 | 2,4,6-Trichlorophenol | 2 | ☐ Below ☐ Above ____ |
| D023 | o-Cresol | 200 | ☐ Below ☐ Above ____ | D043 | Vinyl Chloride | 0.2 | ☐ Below ☐ Above ____ |

6.6) If this is a characteristic hazardous waste, does it contain underlying hazardous constituents? ☐ Yes ☐ No
If yes, please list the constituents in Section 11.

## Section 7 – Non-Hazardous Wastes

*For a complete list of non-hazardous waste codes, please refer to Section 7 of the EQ Resource Guide*

**Please list applicable waste code:**

7.1) Is this a Michigan non-hazardous liquid industrial waste? ☐ Yes ☒ No
7.2) Is this a Universal waste? ☐ Yes ☒ No
7.3) Is this a Recyclable Commodity? (e.g.: computer monitors, free mercury, etc.) ☐ Yes ☒ No
7.4) Is this waste a recoverable petroleum product? ☐ Yes* ☒ No
7.5) Is this waste used oil as defined by 40 CFR Part 279? ☐ Yes* ☒ No

***If you answered 'yes' to questions 7.4 or 7.5 please attach the Waste Characterization Report Addendum found in Section 7 of the EQ Resource Guide.***

## Section 8 – TSCA Information

8.1) What is the concentration of PCBs in the waste? ☒ None ☐ 0-5 ppm ☐ 6-49 ppm ☐ 50-499 ppm ☐ 500+ ppm
8.2) Does the waste contain PCB contamination from a source with a concentration ≥ 50 ppm? ☐ Yes ☒ No
***If you answered "no" to 8.1 and 8.2, please skip to Section 9.***
8.3) Has this waste been processed into a non-liquid form? ☐ Yes ☐ No
If yes, what was the concentration of PCBs prior to processing? ☐ N/A ☐ 0-499 ppm ☐ 500+ ppm
8.4) Is the non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media? ☐ Yes ☐ No
8.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer? ☐ Yes ☐ No
8.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)? ☐ N/A ☐ Yes ☐ No

## Section 9 – Clean Air Act Information

| NESHAP SIC* | | |
|---|---|---|
| 2812 | 2836 | 2875 |
| 2813 | 2841 | 2879 |
| 2816 | 2842 | 2891 |
| 2819 | 2843 | 2892 |
| 2821 | 2844 | 2893 |
| 2822 | 2851 | 2895 |
| 2823 | 2861 | 2899 |
| 2824 | 2865 | 2911 |
| 2833 | 2869 | 3312 |
| 2834 | 2873 | 4953 |
| 2835 | 2874 | 9511 |

9.1) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD or 40 CFR, Part 264, Subpart CC (RCRA)? ☐ Yes ☒ No
(Does the waste contain >500 ppm Volatile Organic Hazardous Air Pollutants – VOHAP's or Volatile Organic Compounds – VOC's?)
*For a complete list of VOHAP's, please see Section 11 of the EQ Resource Guide*
9.2) Is the site, or waste, subject to any other MACT or NESHAP? ☐ Yes, please specify: _____ ☒ No
9.3) Does this waste stream contain Benzene? ☐ Yes ☒ No
***If you answered "no" to 9.3, please skip to Section 10.***
9.4) Does the waste stream come from a facility with one of the SIC/NAICS codes listed under the NESHAP? ☐ Yes ☐ No
9.5) Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) ≥10 Mg/year? ☐ Yes ☐ No
For assistance in calculating the TAB, please see the TAB Worksheet in Section 9 of the EQ Resource Guide.
***If you answered "no" to question 9.4 and 9.5, please skip to Section 10.***
9.6) Does the waste contain >10% water? ☐ Yes ☐ No
9.7) What is the TAB quantity for your facility? _____ Mg/Year
9.8) Does the waste contain >1.0 mg/kg total Benzene? ☐ Yes ☐ No
9.9) What is the total Benzene concentration in your waste? _____ Percent or _____ ppmw.
*(Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.)*
*For a list of NAICS codes, please refer to Section 9 of the EQ Resource Guide.

## Section 10 – Fuel Blending Information

10.1) Is this waste intended for fuel blending? ☐ Yes* ☒ No
*If yes, Heat value (BTU/lb) _____ Chlorine (%) _____ Water (%) _____ Solids (%) _____
10.2) Is this waste intended for reclamation? ☐ Yes ☒ No (5-Gallon Sample required for all reclaim waste streams)

## Section 11 – Constituent Information

Please identify your waste constituents from these four categories: ***Underlying Hazardous Constituents (UHC's), Volatile Organic Hazardous Air Pollutants (VOHAP's), Volatile Organic Compounds (VOC's) and Toxic Release Inventory Constituents (TRI)***

| Constituent | Concentration | UHC? | | Constituent | Concentration | UHC? | |
|---|---|---|---|---|---|---|---|
| | | ☐ Yes | ☐ No | | | ☐ Yes | ☐ No |
| | | ☐ Yes | ☐ No | | | ☐ Yes | ☐ No |
| | | ☐ Yes | ☐ No | | | ☐ Yes | ☐ No |
| | | ☐ Yes | ☐ No | | | ☐ Yes | ☐ No |
| | | ☐ Yes | ☐ No | | | ☐ Yes | ☐ No |

*Please see Section 11 of the EQ Resource Guide for a list of UHC's, VOHAP's and VOC's. For a complete list of TRI constituents, please refer to 40 CFR 372.65.*

## Section 12 – Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's Resource Team to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's Resource Team to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

Generator Signature _____ Printed Name Jim Kourkoumelis

Company Solvay Chemical Title Hazardous Waste Coordinator Date 5/9/08

*The generator's signature MUST appear on the EQ Waste Characterization Report. If the generator has authorized a third party to certify this document, a written notice (on generator letterhead) must accompany this submittal. Although the EQ Resource Team is authorized to make certain modifications to the information provided on this form, the addition or removal of waste codes and waste constituents must be documented by the generator.*

## STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ – The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Characterization Report, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

**Definitions**

The following definitions shall apply for purposes of this Agreement:

**"Acceptable Waste"** shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

**"Delivered Wastes"** shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii) ) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

**"Non-Conforming Wastes"** shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Characterization Report and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Characterization Report (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

**Control of Operations**.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter, "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

**Identification of Waste**.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Characterization Report containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Characterization Report, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to the decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Characterization Report.

**Non-Conforming Wastes**.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

**Customer Warranty - Acceptable Wastes**.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Characterization Report. The information set forth in the Waste Characterization Report or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

**Customer Warranty - Title to Wastes**.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

**Customer Warranty - Compliance with Laws**.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

**Customer Warranty - Updating Information**.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Characterization Report, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

**Customer Indemnity**.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statues, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

**Force Majeure**

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

**Governing Laws**

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.

**PERKIN ELMER**

The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

June 30, 1994

Certified Mail Z 024 624 046

EPCRA Reporting Center
c/o Computer Based Systems Inc.
4301 N. Fairfax Drive
6th Floor Suite 650
Arlington, VA 22203

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions, please feel free to contact me at the above number.

Sincerely,

Joe Macri
Manager Facilities

JM/amm
cc: Andrew B. Mazzone, Executive Vice President
Constance L. Conroy, Supervisor Environmental Compliance

**PERKIN ELMER**

The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

June 30, 1994

Certified Mail Z 024 624 045

Mr. William Miner
New York Emergency Response Commission
New York State Department of
Environmental Conservation
Bureau of Spill Prevention & Response
50 Wolf Road/Room 326
Albany, NY 12233-3510

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions, please feel free to contact me at the above number.

Sincerely,

Joe Macri
Manager Facilities

JM/amm
cc: Andrew B. Mazzone, Executive Vice President
Constance L. Conroy, Supervisor Environmental Compliance

**PERKIN ELMER**

The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

June 30, 1994

Certified Mail Z 024 624 044

State Emergency Response Commission
c/o State Emergency Management Office
Building 22, State Campus
Albany, NY 12226-5000

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions, please feel free to contact me at the above number.

Sincerely,

Joe Macri
Manager Facilities

JM/amm
cc: Andrew B. Mazzone, Executive Vice President
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**PERKIN ELMER**

The Perkin-Elmer Corporation
**Metco Division**
1101 Prospect Avenue — P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 338-2477
RCA 229913

June 30, 1994

Certified Mail Z 024 624 043

Local Emergency Planning Committee
c/o Civil Preparedness Office
140 15th Street
Mineola, NY 11501

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions, please feel free to contact me at the above number.

Sincerely,

Joe Macri
Manager Facilities

JM/amm
cc: Andrew B. Mazzone, Executive Vice President
Constance L. Conroy, Supervisor Environmental Compliance

PWPlus - Corrcl15.Pwp

PRAXAIR

Praxair, Inc.
P.O. Box 1986
Danbury, CT 06813-1986

February 15, 2005

SULZER WESTBURY INC
Safety & Environmental Coordinator
1101 PROSPECT AVENUE
WESTBURY, NY 11590

SUBJECT: EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY FORMS AND COMMUNITY RIGHT-TO-KNOW REPORTING REQUIREMENTS

Dear: Safety & Environmental Coordinator

Section 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA) requires the owner or operator of a facility which is required to prepare or have available a Material Safety Data Sheet (MSDS) for a chemical deemed hazardous under the Occupational Safety and Health Act (OSHA) of 1970, to prepare and submit an annual "Inventory Form" covering such chemical to each of the following agencies on or before March 1st of each year.

- the appropriate Local Emergency Planning Committee
- the state Emergency Response Commission
- the Fire Department with jurisdiction over the facility

Under present Federal Law, for the purposes of the product(s) covered by this letter, hazardous chemicals (compressed and cryogenic gases) ever present at a facility in amounts equal to or greater than 10,000 pounds must be reported on an Inventory Form for the reporting year 2004.

Compressed and cryogenic (refrigerated) gases are hazardous under OSHA because they can cause injury if they are released inadvertently or in an uncontrolled manner.

A review of our records indicates that an Inventory Form covering product(s) Praxair sold you in 2004 is required to be filed by March 1, 2005.

In prior years we had provided you with a nearly completed Federal Tier II form to make it easier for you to comply with reporting requirements. However, because more and more states have Tier II forms and reporting thresholds that differ from the Federal Tier II reporting requirements, and because many states now require submission of Tier II forms electronically, it has become impractical to provide you with a partially completed Federal Tier II equivalent form. Instead, we are providing you with the specific product data that is necessary to complete your Tier II filing using whatever format is required by your state. Included with this information is a Tier II instruction sheet that explains the various codes used in Tier II reporting. We strongly encourage you to contact your State Emergency Response Commission to obtain and understand the state specific reporting requirements that may apply.

# TIER TWO EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

| | | |
|---|---|---|
| Facility Identification ( Tank (s) at ) Address **1101 PROSPECT AVENUE** | Name **SULZER WESTBURY INC** City **WESTBURY** St **NY** Zip **11590** | |
| Account Number: **0043-2017-2** County **NASSAU** | SIC Code | D&B Number |
| Owner / Operator Name Name **SULZER WESTBURY INC** Address **1101 PROSPECT AVENUE** | Phone ( ) - **1101 PROSPECT AVENUE** | |

## Chemical Description

| | | |
|---|---|---|
| CAS **007727 37 9** Trade Sert _<br>Praxair # **8527187**<br>Chem. Name **NITROGEN CRYOGENIC LIQUID**<br>**X** Pure _ Mix _ EHS<br>_ Solid **X** Liquid **X** Gas | CAS Trade Sert _<br>Praxair #<br>Chem. Name<br>_ Pure _ Mix _ EHS<br>_ Solid _ Liquid _ Gas | CAS Trade Sert _<br>Praxair #<br>Chem. Name<br>_ Pure _ Mix _ EHS<br>_ Solid _ Liquid _ Gas |

## Physical and Health Hazards

| | | |
|---|---|---|
| _ Fire<br>**X** Sudden Rel. of Pressure<br>_ Reactivity<br>**X** Imm ( Acute )<br>_ Del ( Chronic ) | _ Fire<br>_ Sudden Rel. of Pressure<br>_ Reactivity<br>_ Imm ( Acute )<br>_ Del ( Chronic ) | _ Fire<br>_ Sudden Rel. of Pressure<br>_ Reactivity<br>_ Imm ( Acute )<br>_ Del ( Chronic ) |

## Inventory

| | | |
|---|---|---|
| **04** Max daily amt.<br>**04** Avg daily amt.<br>**365** Days on site | Max daily amt.<br>Avg daily amt.<br>Days on site | Max daily amt.<br>Avg daily amt.<br>Days on site |

## Storage Codes & Locations (Non - Confidential) Storage Location

**A** Container
**2** Pressure
**7** Temperature

PRAXAIR

## *RECORD UPDATE:*

***Please complete and return by March 1st***

Thank you for helping Praxair simplify SARA Tier II reporting requirements in accordance with EPA regulations. Please correct any information that is missing or incorrect regarding the name, e-mail and mailing address of the person in your company to whom future SARA Tier II notifications should be sent. **It is essential that you provide an email address for the appropriate contact person.** If you are not the correct person to receive this information, please direct this card to the appropriate contact within your company.

Please email this information, along with your Praxair Account Number to **SARA@praxair.com** or complete, detach and return this portion of the page in the enclosed postage-paid envelope.

**Questions**? Call 1-800-PRAXAIR (1-800-772-9247) or email SARA@praxair.com

SULZER WESTBURY INC
Safety & Environmental Coordinator
1101 PROSPECT AVENUE
WESTBURY, NY 11590

Praxair Account Number: **0043-2017-2**

Email:

AS050203

# EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT (EPCRA) REPORTING REQUIREMENTS

EPCRA 302: Owners and operators are required to notify the State Emergency Response Commission (SERC) regarding the presence of extremely hazardous substance (EHSs) at their facilities. EHS are designated pursuant to EPCRA 302 and are listed in 40 Code of Federal Regulations (CFR) Part 355, Appendices A and B.

EPCRA 303: Owners and operators subject to EPCRA 302 are required to designate a facility emergency coordinator and provide any information necessary for emergency planning to the local emergency planning committee (LEPC) upon request.

EPCRA 304: Owners and operators of facilities are required to report releases of CERCLA hazardous substances and EPCRA EHSs to the SERC and LEPC immediately after the facility has knowledge that a reportable quantity has been released. The immediate notification must be followed by a written report as soon as practicable after the release.

EPCRA 311: Owners and operators that are required to prepare or have available Material Safety Data Sheets (MSDSs) under OSHA's Hazard Communication Standard must submit theses MSDSs or a list to the SERC, LEPC, and local fire department with jurisdiction over the facility.

EPCRA 312: Owners and operators that are required to prepare or have available Material Safety Data Sheets (MSDSs) under OSHA's Hazard Communication Standard must submit hazardous chemical inventory forms to the SERC, LEPC, and local fire department annually on March 1st.

EPCRA 313: Owners and operators of certain facilities are required to submit annual reports of routine and accidental releases to EPA and designated State agencies. Facilities are subject to this requirement if they are in Standard Industrial Classification (SIC) Codes 20-39, employ 10 or more employees full time, and manufacture, import, process, or use any of 300 toxic chemicals at greater than the designated threshold amounts. Reports are due annually on July 1st.

Any questions owners or operators may have regarding the EPCRA reporting requirements may be directed to your local emergency planning committee, your State emergency response commissions or to EPA'S EPCRA Hotline at (800) 535-0202 or (703) 920-9877 in Washington, D.C. and Alaska.

A5050200

CHEMICAL DESCRIPTION:

1. Enter the Chemical Abstract Service registry number (CAS). For mixtures, enter the CAS number of the mixture as a whole if it has been assigned a number distinct from its constituents. For a mixture that has no CAS number, leave the item blank or (report the CAS numbers of as many constituent chemicals as possible). Arizona prefers 1a below be done rather than the above option in parentheses.

1a. Submit current material safety data sheets (MSDS) for mixtures containing two or more hazardous chemicals. For single hazardous chemical mixtures enter the CAS and percentage (or percentage range) of the hazardous chemical, e.g. 93% Sulfuric Acid. Se first example on page 4 for inventory Section reporting range determination. This is an Arizona specific request to facilitate emergency planning response requirements.

If you are withholding the name of a chemical in accordance with criteria specified in Title III, Section 322, enter the generic class or category that is structurally descriptive of the chemical (e.g., list toluene diisocyanate as organic isocyanate) and check the box marked Trade secret. Trade secret information should be submitted to EPA and must include a substantiation. Please refer to EPA's final regulation on trade secrecy (53 FR 28772, July 29, 1988) for detailed information how to submit trade secrecy claims.

2. Enter the chemical name or common name of each hazardous chemical.

3. Check box for All applicable descriptors: pure, mixture: solid, liquid, and /or gas; and whether the chemical is or contains an EHS. A minimum of two boxes must be checked. Specify EHS solids in powder form (particle size less than 100 microns).

4. If the chemical is a mixture containing an EHS enter the chemical name of EHS in the mixture.

EXAMPLE

You have pure chlorine gas on hand, as well as two mixtures that contain liquid chlorine. You write "chlorine" and enter the CAS number. Then you check "pure", "mix", "liquid", gas and "EHS".

PHYSICAL AND HEALTH HAZARDS:

For each chemical you have listed, check all the physical and health hazard boxes that apply. These hazard categories are defined in 40 CFR 370.2. The two health hazard categories and three physical hazard categories are a consolidation of the 23 hazard categories defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200. A minimum of one box must be checked.

Hazard Category Comparison
For Reporting Under Sections 311 and 312

| EPA's Hazard Categories | OSHA's Hazard Categories |
|---|---|
| Fire Hazards | Flammable<br>Combustible Liquid<br>Pyrophoric<br>Oxidizer |
| Sudden Release of Pressure | Explosive<br>Compressed Gas |
| Reactive | Unstable Reactive<br>Organic Peroxide<br>Water Reactive |
| Immediate (Acute) Health Hazards | Highly Toxic<br>Toxic<br>Irritant<br>Sensitizer<br>Corrosive |
| | Other hazardous chemicals with an adverse effect with Short term exposure |
| Delay (Chronic) Health Hazard | Carcinogens |
| | Other hazardous chemicals with an adverse effect with long term exposure |

INVENTORY:

MAXIMUM AMOUNT

1. for each hazardous chemical, estimate the greatest amount present at your facility on any sinle day during the reporting period. See example on page 4.

2. Find the appropriate range value code in Table I.

3. Enter the range value as the Maximum Amount.

Table I REPORTING RANGES

| Range Value | Weight Range in Pounds From... | To... |
|---|---|---|
| 01 | 0 | 99 |
| 02 | 100 | 999 |
| 03 | 1,000 | 9,999 |
| 04 | 10,000 | 99,999 |
| 05 | 100,000 | 999,999 |
| 06 | 1,000,000 | 9,999,999 |
| 07 | 10,000,000 | 49,999,999 |
| 08 | 50,000,000 | 99,999,999 |
| 09 | 100,000,000 | 499,999,999 |
| 10 | 500,000,000 | 999,999,999 |
| 11 | 1 Billion | Higher then 1 billion |

Enter the actual weight in pound in the shaded space below the response blocks. Do this for both Maximum Amount and Average Daily Amount.

AS050209

Storage Locations:

Provide a brief description of the precise location of the chemical, so that emergency responders can locate the optional site plan or site coordinates as explained below.

For each chemical, indicate at a minimum the building or lot. Additionally, where practical, the room or area may be indicated. You may respond in narrative form with appropriate site coordinates or abbreviations.

If the chemical is present in more than one building, lot, or area location, continue your responses down the page as needed. If the chemical exists everywhere at the plant site simultaneously, you may report that the chemical is ubiquitous at the site

OPTIONAL ATTACHMENTS:
If you choose to attach one of the following, check the appropriate attachments box at the bottom of the Tier Two from.

a. A site plan with site coordinates indicated for buildings, lots, areas, etc. throughout your facility.

b. A list of site coordinate abbreviations that correspond to buildings, lots, areas, etc. throughout your facility.

c. A description of dikos and other safeguard measures for storage locations throughout your facility.

EXAMPLE

You have benzene in the main room of the main building, and in tank 2 in tank field 10. You attach a site plan with coordinates as follows: main building = G-2, tank field 10 = B-6. Fill in the Storage Location as follows:

B-6 ( Tank 2 ) G-2 ( Main Room)

CONFIDENTIAL INFORMATION

Under Title III, Section 324, you may elect to withhold location information on a specific chemical from disclosure to the public. If you choose to do so:

- Enter the word "confidential" in the Non-Confidential Location section of the Tier Two form on the first line of the storage locations.
- On a separate Tier Two Confidential Location Information Sheet, enter the name and CAS number of each chemical for which you are keeping the location confidential.
- Enter the appropriate location and storage information, as described above for non-confidential locations.
- Attach the Tier Two Confidential Location information Sheet to the Tier Two form. This separates confidential locations from other information that will be disclosed to the public.

CERTIFICATION

Instructions for this section are included on page one of these instructions.

FORM R/313 REPORTING REQUIREMENTS: Reporting "trigger" is based on annual chemical consumption not releases. (Report due July 1 of each year)

RESUBMITTAL PROCEDURES

Recertify corrected reports using red ink. Using the "Resubmittal/Information Package Response Letter," send corrected copies to the:

(1) State Emergency Response Commission

(2) Applicable Local Emergency Planning Committee

(3) Fire department/district with facility jurisdiction.

An original signature is required as described on page 1 of these instructions under CERTIFICATION.

- ✓ Ceramics powder - all oxides - Alumina Mg
  Yt
  Zr
- ✓ Al-based powders
- ✓ Ni - " "
- ✓ Fe - " "
- ✓ WC powder
- ✓ $Cr_2C_3$ powders
- ✓ Polyester powder

Tier II worksheet, 2004
240 days MP, 125 days PR

| | | max | avg |
|---|---|---|---|
| • aluminum-based powders: | | | |
| ✓ MP = 1/04 | ~ 150,000 lb | 05 | 04 (65%) |
| ✓ PR = 12/04 | ~ 129,000 lb | 05 | 04 (35%) |
| • ceramic powders: | | | |
| ✓ MP = 7/04 | ~ 237,000 lb | 05 | 05 |
| ✓ PR = 10/04 | ~ 216,000 lb | 05 | 04 |
| • nickel-based powders: | | | |
| ✓ MP = 7/04 | ~ 174,000 lb | 05 | 05 |
| ✓ PR = 11/04 | ~ 193,000 lb | 05 | 04 |
| • iron-based powders: | | | |
| ✓ MP = 8/04 | ~ 35,000 lb | 04 | 04 |
| ✓ PR = 9/04 | ~ 34,000 lb | 04 | 04 |
| • chrome carbide powder: | | | |
| ✓ MP = 2/04 | ~ 31,000 lb | 04 | 04 |
| ✓ PR = 12/04 | ~ 28,000 lb | 04 | 03 |
| • tungsten carbide powder: | | | |
| ✓ MP = 8/04 | ~ 42,000 lb | 04 | 04 |
| ✓ PR = 9/04 | ~ 31,000 lb | 04 | 03 |
| • polyester powder: | | | |
| MP = N/a | | | |
| ✓ PR = 10/04 | ~ 12,000 lb | 04 | 03 |

# METCO PERKIN ELMER

Material Safety Data Sheet

METCO PERKIN-ELMER
1101 PROSPECT AVENUE
P.O. BOX 1006
WESTBURY, NEW YORK 11590-0201
516-334-1300
EMERGENCY CONTACT CHEMTREC 800-424-9300
CALLS FROM OUTSIDE THE US 202-483-7616

**Product:** METCO SPRASTEEL 25

**MSDS No:** METCO / 50-386
**Revision:** 1a
**Date:** August 15, 1989

## SECTION I. MATERIAL IDENTIFICATION

**Trade/Material Name:** METCO SPRASTEEL 25

**Description:** Thermal Spray Metallic Wire

**Other Designations:** CARBON STEEL WIRE

Date of Issue: September 7, 1987

## SECTION II. INGREDIENTS AND HAZARDS

| Ingredient Name: | CAS Number: | Percent: | Exposure Limits: |
|---|---|---|---|
| Iron | 7439-89-6 | 99.0 % | OSHA PEL: 10 mg/m$^3$<br>ACGIH TLV: 5 mg/m$^3$* |

* As Iron Oxide

## SECTION III. PHYSICAL DATA

**Appearance & Odor:** Wire; No Odor.

**Boiling point:** N/A
**Vapor pressure:** N/A
**Water solubility (%):** Neg.
**Vapor density (air=1):** N/A
**pH:** N/A
**Evaporation rate:** N/A
**Specific gravity ($H_2O$=1):** 7.8
**Melting point:** 2800-2850
**% volatile by volume:** N/A
**Molecular weight:** N/A

## SECTION IV. FIRE AND EXPLOSION DATA

**Flash Point (method):** None **Limits: LEL %:** N/A **UEL %:** N/A

**Extinguishing Media:** Use Class D Fire Extinguisher.

**Unusual fire or explosion hazards:** Moderate fire hazard in the form of dust when exposed to flame.

**Special fire-fighting procedures:** Treat as a metallic fire.

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## SECTION V. REACTIVITY DATA

Material is stable Hazardous polymerization will not occur

**Chemical incompatibilities:** Oxidizers

**Hazardous decomposition Products:** Ozone and nitric oxide are formed by plasma flame (independent of powder).

## SECTION VI. HEALTH HAZARD INFORMATION

**Summary of risks:**

IRON: A poison by subcutaneous route. An experimental tumorigen and possible carcinogen. Benign pneumoconiosis; X-ray shadows indistinguishable from fibrotic pneumoconiosis.

**Medical conditions which may be aggravated by contact:** Consult a physician.

**Target organs:** Respiratory System, Cardiovascular System.

**Primary entry route(s):** Inhalation

**Signs & symptoms of overexposure:**

**Eye contact:** Possible irritation.

**Skin contact:** Possible dermatitis.

**Inhalation:** Respiratory irritation.

**Ingestion:** Possible irritation.

**First aid:**

**Eye contact:** Flush eye with sufficient amounts of water. If irritation persists, consult a physician.

**Skin contact:** If skin irritation occurs, wash with soap and water to remove material.

**Inhalation:** Expose to fresh air.

**Ingestion:** Consult a physician.


MSDS 50-386 continues on page 3

# METCO PERKIN ELMER

Material Safety Data Sheet

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1101 PROSPECT AVENUE
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WESTBURY, NEW YORK 11590-0201
516-334-1300
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## SECTION VII. SPILL, LEAK AND DISPOSAL PROCEDURES

**Spill / Leak procedures:** Good housekeeping by wet mopping the area clean is necessary to remove these materials from becoming a source of air contamination.

**Waste management / Disposal:** Consult local, state and federal regulations.

## SECTION VIII. SPECIAL PROTECTION INFORMATION

**Personal protective equipment:**

**Goggles:** The following lens shades are recommended for the process indicated. Combustion spraying shade #5, arc spraying shade #9.

**Gloves:** Aluminized gloves are to be worn during arc spraying.

**Respirator:** A respirator approved by NIOSH for dust/fumes/mists should be worn at all times during the thermal spray process to protect operator from dust and fumes.

**Other:** Ear protection must be worn when the operator is subjected to excessive noise levels. (See OSHA Requirements.) Aluminized apron is to be worn during arc spraying.

**Workplace considerations:**

**Ventilation:** Ventilation equipment designed to create an air velocity of 200 FPM.

**Safety stations:**
Eye Wash Station is recommended.

**Other:** N/A

## SECTION IX. SPECIAL PRECAUTIONS

**Storage segregation:** Store away from incompatibles.

**Special handling / storage:** Cool and dry area.

**Other precautions:** Avoid oral ingestion and excessive skin contact. Eye protection is recommended when handling wire.

**Prepared/revised by:** METCO

August 15, 1989

THE INFORMATION CONTAINED WITHIN IS BASED ON AVAILABLE DATA AND TESTS AND IS BELIEVED TO BE ACCURATE. IT IS PREPARED SOLEY FOR YOUR CONSIDERATION AND VERIFICATION SINCE CONDITIONS OF USE, STORAGE AND HANDLING MAY VARY.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number |
|---|---|---|---|
| NYD133138651 | 1 | (908) 354-0210 | 001028641 JJK |

**GENERATOR**

5. Generator's Name and Mailing Address: SULZER METCO US INC
1101 PROSPECT AVE
WESTBURY, NY 11590
Generator's Phone: (516) 328-2417

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: CLEAN VENTURE INC.
U.S. EPA ID Number: NJ0000027193

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Waste Control Specialists, LLC
9998 Bi. Hwy 176
Andrew, TX 79714
Facility's Phone: (575) 394-4500
U.S. EPA ID Number: TXD988089464

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes |
|---|---|---|---|---|---|---|
| X | 1. RADIOACTIVE MATERIAL, EXCEPTED PACKAGE LIMITED QUANTITY OF MATERIAL, 7, UN2910, ERG# 161 | XX4 | DM | 4975 | P | |
| X | 2. RADIOACTIVE MATERIAL, EXCEPTED PACKAGE LIMITED QUANTITY OF MATERIAL, 7, UN2910, ERG# 161 | X60 | DM | 16,184 | P | |
| | 3. | | | | | |
| | 4. | | | | | |

14. Special Handling Instructions and Additional Information: 9489483/-1/69904/255814 (1)DIRECT-53 NORM waste (2)DIRECT-53 NORM waste WCS Profile Number: WP-019571 CCI PO number: 52185
SEAL # 1451460

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Tom Kourkoumelis
Signature:
Month: 09 Day: 15 Year: 08

**INT'L**

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Glenn Nemeth
Signature:
Month: 09 Day: 15 Year: 08

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

**DESIGNATED FACILITY**

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| | | | |

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month: Day: Year:

## U.S. EPA Form 8700-22

Read all instructions before completing this form.

1. This form has been designed for use on a 12-pitch (elite) typewriter which is also compatible with standard computer printers; a firm point pen may also be used—press down hard.
2. Federal regulations require generators and transporters of hazardous waste and owners or operators of hazardous waste treatment, storage, and disposal facilities to complete this form (EPA Form 8700–22) and, if necessary, the continuation sheet (EPA Form 8700–22A) for both inter- and intrastate transportation of hazardous waste.

Public reporting burden for this collection of information is estimated to average: 30 minutes for generators, 10 minutes for transporters, and 25 minutes for owners or operators of treatment, storage, and disposal facilities. This includes time for reviewing instructions, gathering data, completing, reviewing and transmitting the form. Any correspondence regarding the PRA burden statement for the manifest must be sent to the Director of the Collection Strategies Division in EPA's Office of Information Collection at the following address: U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW., Washington, DC 20460. Do not send the completed form to this address.

### I. Instructions for Generators

*Item 1. Generator's U.S. EPA Identification Number*

Enter the generator's U.S. EPA twelve digit identification number, or the State generator identification number if the generator site does not have an EPA identification number.

*Item 2. Page 1 of ___*

Enter the total number of pages used to complete this Manifest (*i.e.*, the first page (EPA Form 8700-22) plus the number of Continuation Sheets (EPA Form 8700-22A), if any).

*Item 3. Emergency Response Phone Number*

Enter a phone number for which emergency response information can be obtained in the event of an incident during transportation. The emergency response phone number must:

1. Be the number of the generator or the number of an agency or organization who is capable of and accepts responsibility for providing detailed information about the shipment;
2. Reach a phone that is monitored 24 hours a day at all times the waste is in transportation (including transportation related storage); and
3. Reach someone who is either knowledgeable of the hazardous waste being shipped and has comprehensive emergency response and spill cleanup/incident mitigation information for the material being shipped or has immediate access to a person who has that knowledge and information about the shipment.

**Note:** Emergency Response phone number information should only be entered in Item 3 when there is one phone number that applies to all the waste materials described in Item 9b. If a situation (*e.g.*, consolidated shipments) arises where more than one Emergency Response phone number applies to the various wastes listed on the manifest, the phone numbers associated with each specific material should be entered after its description in Item 9b.

*Item 4. Manifest Tracking Number*

This unique tracking number must be pre-printed on the manifest by the forms printer.

*Item 5. Generator's Mailing Address, Phone Number and Site Address*

Enter the name of the generator, the mailing address to which the completed manifest signed by the designated facility should be mailed, and the generator's telephone number. Note, the telephone number (including area code) should be the normal business number for the generator, or the number where the generator or his authorized agent may be reached to provide instructions in the event the designated and/or alternate (if any) facility rejects some or all of the shipment. Also enter the physical site address from which the shipment originates only if this address is different than the mailing address.

*Item 6. Transporter 1 Company Name, and U.S. EPA ID Number*

Enter the company name and U.S. EPA ID number of the first transporter who will transport the waste. Vehicle or driver information may not be entered here.

*Item 7. Transporter 2 Company Name and U.S. EPA ID Number*

If applicable, enter the company name and U.S. EPA ID number of the second transporter who will transport the waste. Vehicle or driver information may not be entered here.

If more than two transporters are needed, use a Continuation Sheet(s) (EPA Form 8700-22A).

*Item 8. Designated Facility Name, Site Address, and U.S. EPA ID Number*

Enter the company name and site address of the facility designated to receive the waste listed on this manifest. Also enter the facility's phone number and the U.S. EPA twelve digit identification number of the facility.

*Item 9. U.S. DOT Description (Including Proper Shipping Name, Hazard Class or Division, Identification Number, and Packing Group)*

*Item 9a.* If the wastes identified in Item 9b consist of both hazardous and nonhazardous materials, then identify the hazardous materials by entering an "X" in this Item next to the corresponding hazardous material identified in Item 9b.

*Item 9b.* Enter the U.S. DOT Proper Shipping Name, Hazard Class or Division, Identification Number (UN/NA) and Packing Group for each waste as identified in 49 CFR 172. Include technical name(s) and reportable quantity references, if applicable.

**Note:** If additional space is needed for waste descriptions, enter these additional descriptions in Item 27 on the Continuation Sheet (EPA Form 8700-22A). Also, if more than one Emergency Response phone number applies to the various wastes described in either Item 9b or Item 27, enter applicable Emergency Response phone numbers immediately following the shipping descriptions for those Items.

*Item 10. Containers (Number and Type)*

Enter the number of containers for each waste and the appropriate abbreviation from Table I (below) for the type of container.

TABLE I.--TYPES OF CONTAINERS

| | |
|---|---|
| BA = Burlap, cloth, paper, or plastic bags. | DT = Dump truck. |
| CF = Fiber or plastic boxes, cartons, cases. | DW = Wooden drums, barrels, kegs. |
| CM = Metal boxes, cartons, cases (including roll-offs). | HG = Hopper or gondola cars. |
| CW = Wooden boxes, cartons, cases. | TC = Tank cars. |
| CY = Cylinders. | TP = Portable tanks. |
| DF = Fiberboard or plastic drums, barrels, kegs. | TT = Cargo tanks (tank trucks). |
| DM = Metal drums, barrels, kegs. | |

*Item 11. Total Quantity*

Enter, in designated boxes, the total quantity of waste. Round partial units to the nearest whole unit, and *do not* enter decimals or fractions. To the extent practical, report quantities using appropriate units of measure that will allow you to report quantities with precision. Waste quantities entered should be based on actual measurements or reasonably accurate estimates of actual quantities shipped. Container capacities are not acceptable as estimates.

*Item 12. Units of Measure (Weight/Volume)*

Enter, in designated boxes, the appropriate abbreviation from Table II (below) for the unit of measure.

TABLE II.--UNITS OF MEASURE

| | |
|---|---|
| G = Gallons (liquids only). | N = Cubic Meters. |
| K = Kilograms. | P = Pounds. |
| L = Liters (liquids only). | T = Tons (2000 Pounds). |
| M = Metric Tons (1000 kilograms). | Y = Cubic Yards. |

**Note:** Tons, Metric Tons, Cubic Meters, and Cubic Yards should only be reported in connection with very large bulk shipments, such as rail cars, tank trucks, or barges.

*Item 13. Waste Codes*

Enter up to six federal and state waste codes to describe each waste stream identified in Item 9b. State waste codes that are not redundant with federal codes must be entered here, in addition to the federal waste codes which are most representative of the properties of the waste.

*Item 14. Special Handling Instructions and Additional Information*

1. Generators may enter any special handling or shipment-specific information necessary for the proper management or tracking of the materials under the generator's or other handler's business processes, such as waste profile numbers, container codes, bar codes, or response guide numbers. Generators also may use this space to enter additional descriptive information about their shipped materials, such as chemical names, constituent percentages, physical state, or specific gravity of wastes identified with volume units in Item 12.
2. This space may be used to record limited types of federally required information for which there is no specific space provided on the manifest, including any alternate facility designations; the manifest tracking number of the original manifest for rejected wastes and residues that are re-shipped under a second manifest; and the specification of PCB waste descriptions and PCB out-of-service dates required under 40 CFR 761.207. Generators, however, cannot be required to enter information in this space to meet state regulatory requirements.

*Item 15. Generator's/Offeror's Certifications*

1. The generator must read, sign, and date the waste minimization certification statement. In signing the waste minimization certification statement, those generators who have not been exempted by statute or regulation from the duty to make a waste minimization certification under section 3002(b) of RCRA are also certifying that they have complied with the waste minimization requirements. The Generator's Certification also contains the required attestation that the shipment has been properly prepared and is in proper condition for transportation (the shipper's certification). The content of the shipper's certification statement is as follows: "I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent." When a party other than the generator prepares the shipment for transportation, this party may also sign the shipper's certification statement as the offeror of the shipment.
2. Generator or Offeror personnel may preprint the words, "On behalf of" in the signature block or may hand write this statement in the signature block prior to signing the generator/offeror certification, to indicate that the individual signs as the employee or agent of the named principal.

**Note:** All of the above information except the handwritten signature required in Item 15 may be pre-printed.

08-99775-99838

#10992

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number |
|---|---|---|---|
| NYD131318651 | 1 | (908) 354-0210 | 001028641 JJK |

**GENERATOR**

5. Generator's Name and Mailing Address: SULZER METCO US INC
1101 PROSPECT AVE
WESTBURY, NY 11590
Generator's Phone: (516) 338-2417

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: CLEAN VENTURE INC.
U.S. EPA ID Number: NJ0000027193

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Waste Control Specialists, LLC
9998 W. Hwy 176
Andrew, TX 79714
Facility's Phone: (575) 394-4300
U.S. EPA ID Number: TXD988088464

| 9a. HM | 9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes |
|---|---|---|---|---|---|---|
| X | 1. RADIOACTIVE MATERIAL EXCEPTED PACKAGE LIMITED QUANTITY OF MATERIAL 7 UN2910 ERG# 161 | XX4 | C F | 4975 | P | |
| X | 2. RADIOACTIVE MATERIAL EXCEPTED PACKAGE LIMITED QUANTITY OF MATERIAL 7 UN2910 ERG# 161 | X60 | D M | 16,184 | P | |
| | 3. | | | | | |
| | 4. | | | | | |

SULZER METCO (US) INC.
OCT 06 2008
EHS DEPARTMENT

14. Special Handling Instructions and Additional Information: 945948/-1/89904/235814 (1)DIRECT-53 NORM Waste (2)DIRECT-53 NORM waste WCS Profile Number: WP-019571 CCI PO number: 52185
SEA# 1451460

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Jim Konkoviels
Signature:
Month 09 Day 15 Year 08

**INT'L**

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Glenn Nemeth
Signature:
Month 09 Day 15 Year 08

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

**DESIGNATED FACILITY**

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| H132 | | | |

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Tim Crawford
Signature:
Month 09 Day 18 Year 08

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

**DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)**

**PERKIN ELMER**

The Perkin-Elmer Corporation
Metco Division
1101 Prospect Avenue
Westbury, New York 11590
Phone (516) 334-1300
Fax (516) 334-6692
Telex 967759

June 30, 1989

New York State Emergency
Response Commission
NYS Dept. Environmental
Conservation
Bureau of Spill Response
Room 326
50 Wolf Road
Albany, NY 12233-3510

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Form

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions please feel free to contact me at the above number.

Very truly yours,

Patrick A. Tighe
Superintendent
Facilities

PAT:eb
Enclosures
cc: A. Mazzone

P 732 039 289

**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

*(See Reverse)*

| | |
|---|---|
| Sent to NYS Emergency Response Com.<br>NYS Dept. Enviro. Cons. | |
| Street and No Bureau of Spill Response<br>Rm. 326, 50 Wolf Rd. | |
| P O, State and ZIP Code<br>Albany, NY 12233-3510 | |
| Postage | $1.45 |
| Certified Fee | 85 |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt showing to whom and Date Delivered | 90 |
| Return Receipt showing to whom Date and Address of Delivery | |
| TOTAL Postage and Fees | $3,20 |
| Postmark or Date | |

PS Form 3800, June 1985

**STICK POSTAGE STAMPS TO ARTICLE TO COVER FIRST CLASS POSTAGE, CERTIFIED MAIL FEE, AND CHARGES FOR ANY SELECTED OPTIONAL SERVICES. (see front)**

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached and present the article at a post office service window or hand it to your rural carrier (no extra charge)

2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach and retain the receipt, and mail the article.

3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.

4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.

5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.

6. Save this receipt and present it if you make inquiry.

☆ U.S.G.P.O. 1987-176-131

UNITED STATES POSTAL SERVICE

OFFICIAL BUSINESS

**SENDER INSTRUCTIONS**

Print your name, address, and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

PENALTY FOR PRIVATE USE, $300

RETURN TO

Print Sender's name, address, and ZIP Code in the space below.

Metco Inc. Attn: P.A.Tighe

1101 Prospect Ave.

Westbury, NY 11590

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*†
2. ☐ Restricted Delivery *(Extra charge)*†

3. Article Addressed to:
NYS Emergency Response Commission
NYS Dept. Environmental Conservation
Bureau of Spill Response
Room 326 50 Wolf Road
Albany, NY 12233-3510

4. Article Number
P 732 039 289

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED

5 Signature — Addressee
X

6. Signature — Agent
X E. Chapman

7. Date of Delivery 7/3/89

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form **3811**, Mar. 1987 ★ U S G P O 1987-178-268 **DOMESTIC RETURN RECEIPT**

**ADF SYSTEMS, LTD.**
P.O. Box 278
Humboldt, IA 50548
(515) 332-5400

PRODUCT NAME: **PC EXTRA**

MATERIAL SAFETY DATA SHEET ESSENTIALLY SIMILAR TO OSHA-20

NE = NOT ESTABLISHED NA = NOT APPLICABLE

## SECTION 1 - GENERAL INFORMATION

CHEMICAL FAMILY: Alkaline Cleaner

HAZARD CLASSIFICATION: Not regulated

SHIPPING NAME: Not regulated, use product name.

HAZARD SIGNALS:

HEALTH 1 INSTABILITY 0

FIRE 0 OTHER

(0 = insignificant; 1 = slight; 2 = moderate
3 = high; 4 = extreme. Describes short term hazards only)

## SECTION 2 - HAZARDOUS INGREDIENTS

| HAZARDOUS COMPONENTS | CAS # | TLV | OSHA PEL | Section 313? | % (optional) |
|---|---|---|---|---|---|
| Sodium metasilicate | 6834-92-0 | 2mg/$m^3$ | 2mg/$m^3$ | no | <50% |

## SECTION 3 - PHYSICAL DATA

| | | | |
|---|---|---|---|
| Boiling point | NA. | Vapor pressure | NA. |
| Specific gravity | NA. | Vapor density | NA. |
| Percent volatile | NA. | Evaporation rate | NA. |
| Solubility in water | complete | | |
| Appearance and odor | dedusted granular white solid, essentially odorless | | |

## SECTION 4 - FIRE AND EXPLOSION

FLASH POINT(temp at which it gives off combustible vapors) n.a.

Flammable limits-- lower: n.a.

Flammable limits-- upper: n.a.

EXTINGUISHING MEDIA: No restrictions. (Product dissolves in water)

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus. Use protective clothing to avoid skin contact with product.

UNUSUAL FIRE & EXPLOSION HAZARDS: None (non-combustible solid)

## SECTION 5 - REACTIVITY DATA

STABLE: yes conditions to avoid: none.

INCOMPATIBILITY: Strong acids and oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: oxides of carbon

HAZARDOUS POLYMERIZATION: will not occur.

Date Prepared: September 29, 1991

Date printed September 29, 1991

## SECTION 6 - HEALTH HAZARD DATA

Threshold limit value: NA. (blended product)

Health hazards - Chronic unknown.

This product has not been identified as a carcinogen or probable carcinogen by: NTP, IARC Monographs, or OSHA.

Medical conditions generally aggravated by exposure: unknown

EFFECTS OF OVEREXPOSURE

EYES Burns

SKIN possible irritation or burns upon prolonged contact.

INHALATION (of dust) irritation of nose and throat. Note, inhalation of dust is an unlikely route of exposure. The product is dedusted and non-volatile.

INGESTION Burns of mouth and mucous membranes.

EMERGENCY AND FIRST AID PROCEDURES

EYES Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses if applicable. Contact a physician.

SKIN Rinse thoroughly with water. Contact a physician if irritation persists.

INHALATION Remove to fresh air. If breathing difficulties occur seek medical attention.

INGESTION Drink large quantities of milk or water. Do not induce vomiting. Call a physician. (MEDICAL EMERGENCY HOTLINE NUMBER AT TOP OF THIS FORM)

## SECTION 7 - PROTECTIVE EQUIPMENT

RESPIRATOR TYPE: none normally required.

VENTILATION Use with adequate ventilation to avoid breathing dust. (product is dedusted). Avoid breathing concentrated mists or sprays.

EYE PROTECTION safety goggles and/or face shield where conditions warrant.

PROTECTIVE GLOVES rubber gauntlet type.

OTHER PROTECTIVE EQUIPMENT Eyewash stations. Rubber protective clothing as required to avoid prolonged or repeated skin contact.

## SECTION 8-PRECAUTIONS FOR HANDLING AND USE

HANDLING AND STORING:Incidental contact with this product normally causes no harm. However, as with any industrial cleaner, some basic safety measures should be observed. Guard against ingestion of dusts, etc. and wash thoroughly after handling. Do not get in eyes, on skin, or leave on clothing.

OTHER PRECAUTIONS: Store in a cool dry , place away from sources of contamination. Keep container closed to avoid caking or contamination.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up or shovel spills and contain for possible re-use.

WASTE DISPOSAL METHODS : Dispose of waste as allowed by local, state and federal regulations.

DISCLAIMER: The above information is, to the best of our knowledge, current, accurate, and complete based on information reasonably available to us as of the date of preparation of this form. However, it is the user's responsibility to determine the safety, toxicity and suitability for his or her own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by us as to the effects of such use or on the safety or toxicity of this product. Nor do we assume any liability arising out of use by others of the product. Nor is the information herein to be construed as absolutely complete, since additional information may be necessary or desirable when exceptional conditions or circumstances exist or because of applicable laws or regulations.

| | | |
|---|---|---|
| Prepared by | WRC/CBG | //14RMODIF |
| Supersedes Previous Shee. | yes: September 10, 1991 | |
| Date Prepared: | September 29, 1991 | |
| Date printed | September 29, 1991 | |

ADF CHEMICALS

# PC EXTRA

**PC EXTRA** is a biodegradable, non-caustic detergent designed for use in ADF parts washers. This alkaline detergent contains a unique blend of surfactants that provide a low foaming cleaner that is very effective in removing grease, oil, and other types of contamination. **PC EXTRA** is recommended for use on steel, stainless steel, brass, aluminum, and copper parts.

**PC EXTRA** contains a rust inhibitor to provide in-process protection of steel parts and inhibit darkening of brass parts. If your mixture does not provide sufficient rust inhibiting, use a stronger mix.

**DIRECTIONS FOR USE:** Mixing concentrations will vary with the cleaning requirements. For a light to medium grease or oil buildup, such as cutting and manufacturing oil on new parts, use 1 to 3 ounces of detergent per gallon of water in the cleaning solution tank. For parts with heavy layers of dirt and grease, such as automotive parts, use 3 to 9 ounces of detergent per gallon of water.

It is recommended that **PC EXTRA** be premixed for faster and more consistent dissolving into a solution. Warm water further aids this process.

**CAUTION:** Contains sodium metasilicate. Harmful if swallowed or splashed in eyes.

**FIRST AID:** If swallowed, do not induce vomiting. Drink large quantities of water and call physician immediately. If splashed in eyes, flush with water for at least 15 minutes and call physician immediately. Avoid prolonged or repeated contact with skin.

FOR INDUSTRIAL USE ONLY
**CAUTION**
KEEP OUT OF REACH OF CHILDREN

| PART NO. | DESCRIPTION |
|---|---|
| 552102 | PC EXTRA 20# |
| 552103 | PC EXTRA 45# |
| 552105 | PC EXTRA 450# |

MADE IN U.S.A.

**PERKIN ELMER**

Metco Perkin-Elmer
1101 Prospect Avenue
P.O. Box 1006
Westbury, New York 11590-0201
Phone (516) 334-1300
Fax (516) 334-6692
Telex 967759

July 1, 1991

New York Emergency Response Commission
New York State Department of Environmental
Conservation
Bureau of Spill Response
50 Wolf Road/Room 326
Albany, NY 12233-3510

Ref: SARA TITLE III - Toxic Chemical Release Inventory Reporting Forms

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our facilities.

If you have any requests or questions, please feel free to contact me at the above number.

Very truly yours,

Patrick A. Tighe
Superintendent
Facilities Coordination

PAT:mbf
Enclosures
cc: A.B. Mazzone

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *†(Extra charge)†*
2. ☐ Restricted Delivery *†(Extra charge)†*

3. Article Addressed to:

NY Emergency Response Commission
NY State Dept. of Environmental
Bureau of Spill Response
50 Wolf Road/Room 326
Albany, NY 12233-3510

4. Article Number
P 617 298 077

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X

7. Date of Delivery

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form **3811**, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 **DOMESTIC RETURN RECEIPT**

P 617 298 077

**Certified Mail Receipt**
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

| | |
|---|---|
| Sent to | NY Emergency Response Commission - Bureau Spill Response |
| Street & No. | 50 Wolf Road/Room 326 |
| P.O., State & ZIP Code | Albany, NY 12233-3510 |
| Postage | $ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | |
| Return Receipt Showing to Whom, Date, & Address of Delivery | |
| TOTAL Postage & Fees | $ |
| Postmark or Date | |

PS Form **3800**, June 1990

Fold at line over top of envelope to the right of the return address.

CERTIFIED MAIL

P 617 298 077

# TIER TWO INSTRUCTIONS

## GENERAL INFORMATION

**Submission of this Tier Two form is required when requested under Title III of the Superfund Amendments and Reauthorization Act of 1986, Section 312, Public Law 99–499, codified at 42 U.S.C. §11022. The purpose of this Tier Two form is to provide state and local officials and the public with specific information on hazardous chemicals present at your facility during the past year.**

### Certification

The owner or operator or the officially designated representative of the owner or operator must certify that all information included in the Tier Two submission is true, accurate, and complete. On the first page of the Tier Two report, enter your full name and official title. Sign your name and enter the current date. Also, enter the total number of pages included in the Confidential and Non-Confidential Information Sheets as well as all attachments. An original signature is required on at least the first page of the submission. Submissions to the SERC, LEPC, and fire department must each contain an original signature on at least the first page. Subsequent pages must contain either an original signature, a photocopy of the original signature, or a signature stamp. Each page must contain the date on which the original signature was affixed to the first page of the submission and the total number of pages in the submission.

You must provide all information requested on this form to fulfill Tier Two reporting requirements.

This form may also be used as a worksheet for completing the Tier One form or may be submitted in place of the Tier One form.

### Who Must Submit This Form

Section 312 of Title III requires that the owner or operator of a facility submit this Tier Two form if so requested by a state emergency planning commission, a local emergency planning committee, or a fire department with jurisdiction over the facility.

This request may apply to the owner or operator of any facility that is required, under regulations implementing the Occupational Safety and Health Act of 1970, to prepare or have available a material safety data sheet (MSDS) for a hazardous chemical present at the facility. MSDS requirements are specified in the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, found in Title 29 of the Code of Federal Regulations at §1910.1200.

### What Chemicals Are Included

If you are submitting Tier Two forms in lieu of Tier One, you must report the required information on the Tier Two form for each hazardous chemical present at your facility in quantities equal to or greater than established threshold amounts (discussed below), unless the chemicals are excluded under Section 311(e) of Title III. Hazardous chemicals are any substance for which your facility must maintain an MSDS under OSHA's Hazard Communication Standard.

If you elect to submit Tier One rather than Tier Two, you may still be required to submit Tier Two information upon request.

### What Chemicals Are Excluded

Section 311(e) of Title III excludes the following substances:

(i) Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration;

(ii) Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under any normal conditions of use;

(iii) Any substance to the extent it is used for personal, family or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public;

(iv) Any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual;

(v) Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer.

OSHA regulations, Section 1910.1200(b), stipulate exemptions from the requirement to prepare or have available an MSDS.

### Reporting Thresholds

Minimum thresholds have been established for Tier One/Tier Two reporting under Title III, Section 312. These thresholds are as follows:

For extremely hazardous substances (EHSs) designated under section 302 of Title III, the reporting threshold is 500 pounds (or 227 kg.) or the threshold planning quantity (TPQ), whichever is lower:

For all other hazardous chemicals for which facilities are required to have or prepare an MSDS, the minimum reporting threshold is 10,000 pounds (or 4,540 kg.).

You need to report hazardous chemicals that were present at your facility at any time during the previous calendar year at levels that equal or exceed these thresholds. For instructions on threshold determinations for components of mixtures, see "What About Mixtures?" on page 3 of these instructions.

A requesting official may limit the responses required under Tier Two by specifying particular chemicals or groups of chemicals. Such requests apply to hazardous chemicals regardless of established thresholds.

# INSTRUCTIONS

**Please read these instructions carefully. Print or type all responses.**

### When To Submit This Form

Owners or operators of facilities that have hazardous chemicals on hand in quantities equal to or greater than set threshold levels must submit either Tier One or Tier Two forms by March 1.

If you choose to submit Tier One, rather than Tier Two, be aware that you may have to submit Tier Two information later, upon request of an authorized official. You must submit the Tier Two form within 30 days of receipt of a written request.

### Where To Submit This Form

Send either a completed Tier One form or Tier Two form(s) to each of the following organizations:

1. Your State Emergency Response Commission.
2. Your Local Emergency Planning Committee.
3. The fire department with jurisdiction over your facility.

If a Tier Two form is submitted in response to a request, send the completed form to the requesting agency.

### Penalties

Any owner or operator who violates any Tier Two reporting requirements shall be liable to the United States for a civil penalty of up to $25,000 for each such violation. Each day a violation continues shall constitute a separate violation.

If your Tier Two responses require more than one page use additional forms and fill in the page number at the top of the form.

### Reporting Period

Enter the appropriate calendar year, beginning January 1 and ending December 31.

### Facility Identification

Enter the full name of your facility (and company identifier where appropriate).

Enter the full street address or state road. If a street address is not available, enter other appropriate identifiers that describe the physical location of your facility (e.g., longitude and latitude). Include city, state, and zip code.

Enter the primary Standard Industrial Classification (SIC) code and the Dun & Bradstreet number for your facility. The financial officer of your facility should be able to provide the Dun & Bradstreet number. If your firm does not have this information, contact the state or regional office of Dun & Bradstreet to obtain your facility number or have one assigned.

### Owner/Operator

Enter the owner's or operator's full name, mailing address, and phone number.

### Emergency Contact

Enter the name, title, and work phone number of at least one local person or office who can act as a referral if emergency responders need assistance in responding to a chemical accident at the facility.

Provide an emergency phone number where such emergency chemical information will be available 24 hours a day, every day.

The requirement is mandatory. The facility must make some arrangement to ensure a 24 hour contact is available.

### Identical Information

Check the box indicating identical information, located below the emergency contacts on the Tier Two form, if the current chemical information being reported is identical to that submitted last year. Chemical descriptions, hazards, amounts, and locations must be provided in this year's form, even if the information is identical to that submitted last year.

### Chemical Information: Description, Hazards, Amounts, and Locations

The main section of the Tier Two form requires specific information on amounts and locations of hazardous chemicals, as defined in the OSHA Hazard Communication Standard.

If you choose to indicate that all of the information on a specific hazardous chemical is identical to that submitted last year, check the appropriate optional box provided at the right side of the storage codes and locations on the Tier Two form. Chemical descriptions, hazards, amounts, and locations must be provided even if the information is identical to that submitted last year.

- What units should I use?

Calculate all amounts as weight in pounds. To convert gas or liquid volume to weight in pounds, multiply by an appropriate density factor.

- What about mixtures?

If a chemical is part of a mixture, you have the option of reporting either the weight of the entire mixture or only the portion of the mixture that is a particular hazardous chemical (e.g., if a hazardous solution weighs 100 lbs. but is composed of only 5% of a particular hazardous chemical, you can indicate either 100 lbs. of the mixture of 5 lbs. of the chemical.

Select the option consistent with your Section 311 reporting of the chemical on the MSDS or list of MSDS chemicals.

### Chemical Description

Enter the Chemical Abstract Service number (CAS#). For mixtures, enter the CAS number of the mixture as a whole if it has been assigned a number distinct from its components. For a mixture that has no CAS number, leave this item blank or report the CAS numbers of as many constituent chemicals as possible.

If you are withholding the name of a chemical in accordance with criteria specified in Title III, Section 322, enter the generic chemical class or category that is structurally descriptive of the chemical (e.g., list toluene disocynate as organic isocynate) and check the box marked Trade Secret. Trade secret information should be submitted to EPA and must include a substantiation. Please refer to EPA's final

regulation on trade secrecy (53 FR 28772, July 29, 1988) for detailed information on how to submit trade secrecy claims.

2. Enter the chemical name or common name of each hazardous chemical.

3. Check box for ALL applicable descriptors: pure or mixture, and solid, liquid, or gas; and whether the chemical is or contains an EHS.

4. If the chemical is a mixture containing an EHS, enter the chemical name of each EHS in the mixture.

**Example:**

You have pure chlorine gas on hand, as well as two mixtures that contain liquid chlorine. You write "chlorine" and enter the CAS#. Then you circle "pure" and "mix" — as well as "liquid" and "gas".

**Physical And Health Hazards**

For each chemical you have listed, check all the physical and health hazard boxes that apply. These hazard categories are defined in 40 CFR 370.2. The two health hazard categories and three physical hazard categories are a consolidation of the 23 hazard categories defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

HAZARD CATEGORY COMPENSATION FOR REPORTING UNDER SECTIONS 311 AND 312

| EPA's hazard categories | OSHA's hazard categories |
|---|---|
| Fire Hazard | Flammable |
| | Combustion Liquid |
| | Pyrophoric |
| | Oxidizer |
| Sudden Release of Pressure. | Explosive |
| | Compressed Gas |
| Reactive | Unstable Reactive |
| | Organic Peroxide |
| | Water Reactive |
| Immediate (Acute) Health Hazards. | Highly Toxic |
| | Toxic |
| | Irritant |
| | Sensitizer |
| | Corrosive |
| | Other hazardous chemicals with an adverse effect with short term exposure |
| Delayed (Chronic) Health Hazard. | Carcinogens |
| | Other hazardous chemicals with an adverse effect with long term exposure |

**Maximum Amount**

1. For each hazardous chemical, estimate the greatest amount present at your facility on any single day during the reporting period.

2. Find the appropriate range value code in Table I.

3. Enter this range value as the Maximum Amount.

**Table I REPORTING RANGES**

| Range Value | Weight Range in Pounds From | To |
|---|---|---|
| 01 | 0 | 99 |
| 02 | 100 | 999 |
| 03 | 1,000 | 9,999 |
| 04 | 10,000 | 99,999 |
| 05 | 100,000 | 999,999 |
| 06 | 1,000,000 | 9,999,999 |
| 07 | 10,000,000 | 49,999,999 |
| 08 | 50,000,000 | 99,999,999 |
| 09 | 100,000,000 | 499,999,999 |
| 10 | 500,000,000 | 999,999,999 |
| 11 | 1 billion | higher than 1 billion |

If you are using this form as a worksheet for completing Tier One, enter the actual weight in pounds in the shaded space below the response blocks. Do this for both Maximum Amount and Average Daily Amount.

**Example:**

You received one large shipment of a solvent mixture last year. The shipment filled five 5,000-gallon storage tank. You know that the solvent contains 10% benzene, which is a hazardous chemical.

You figure that 10% of 25,000 gallons is 2,500 gallons. You also know that the density of benzene is 7.29 pounds per gallon, so you multiply 2,500 by 7.29 to get a weight of 18,225 pounds.

Then you look at Table I and find that the range value 04 corresponds to 18,225. You enter 04 as the Maximum Amount.

(If you are using the form as a worksheet for completing a Tier One form, you should write 18,225 in the shaded area.)

**Average Daily Amount**

1. For each hazardous chemical, estimate the average weight in pounds that was present at your facility during the year.

To do this, total all daily weights and divide by the number of days the chemical was present on the site.

2. Find the appropriate range value in Table I.

3. Enter this range value as the Average Daily Amount.

**Example:**

The 25,000-gallon shipment of solvent you received last year was gradually used up and completely gone in 315 days. The sum of the daily volume levels in the tank is 4,536,000 gallons. By dividing 4,536,000 gallons by 315 days on-site, you calculate an average daily amount of 14,400 gallons.

You already know that the solvent contains 10% benzene, which is a hazardous chemical. Since 10% of 14,400 is 1,440, you figure that you had an average of 1,440 gallons of benzene. You also know that the density of benzene is 7.29 pounds per gallon, so you multiply 1,440 by 7.29 to get a weight of 10,500 pounds.

Then you look at Table I and find that the range value 04 corresponds to 10,500. You enter 04 as the Average Daily Amount.

(If you are using the form as a worksheet for completing a Tier One form, you should write 10,500 in the shaded area.)

**Number Of Days On-Site**

Enter the number of days that the hazardous chemical was found on-site.

**Example:**

The solvent composed of 10% benzene was present for 315 days at your facility. Enter 315 in the space provided.

**Storage Codes and Storage Locations**

List all non-confidential chemical locations in this column, along with storage types/conditions associated with each location. Please note that a particular chemical may be located in several places around the facility. Each row

of boxes followed by a line represents a unique location for the same chemical.

Storage Codes: Indicate the types and conditions of storage present.

a. Look at Table II. For each location, find the appropriate storage type and enter the corresponding code in the first box.

b. Look at Table III*. For each storage type, find the appropriate storage types for pressure and temperature conditions. Enter the applicable pressure code in the second box. Enter the applicable temperature code in the third box.

**Table II — STORAGE TYPES**

| CODES | Types of Storage |
|---|---|
| A | Above ground tank |
| B | Below ground tank |
| C | Tank inside building |
| D | Steel drum |
| E | Plastic or non-metallic drum |
| F | Can |
| G | Carboy |
| H | Silo |
| I | Fiber drum |
| J | Bag |
| K | Box |
| L | Cylinder |
| M | Glass bottles or jugs |
| N | Plastic bottles or jugs |
| O | Tote bin |
| P | Tank wagon |
| Q | Rail car |
| R | Other |

**Table III — TEMPERATURE AND PRESSURE CONDITIONS**

| CODES | Storage Conditions |
|---|---|
| | (PRESSURE) |
| 1 | Ambient pressure |
| 2 | Greater than ambient pressure |
| 3 | Less than ambient pressure |
| | (TEMPERATURE) |
| 4 | Ambient temperature |
| 5 | Greater than ambient temperature |
| 6 | Less than ambient temperature but not cryogenic |
| 7 | Cryogenic conditions |

**Example:**

The benzene in the main building is kept in a tank inside the building, at ambient pressure and less than ambient temperature.

Table II shows you that the code for a tank inside a building is C. Table III shows you that code for ambient pressure is 1, and the code for less than ambient temperature is 6.

You enter: C(1,6)

***Storage Locations:*** Provide a brief description of the precise location of the chemical, so that emergency responders can locate the area easily. You may find it advantageous to provide the optional site plan or site coordinates as explained below.

For each chemical, indicate at a minimum the building or lot. Additionally, where practical, the room or area may be indicated. You may respond in narrative form with appropriate site coordinates or abbreviations.

If the chemical is present in more than one building, lot, or area location, continue your responses down the page as needed. If the chemical exists everywhere at the plant site simultaneously, you may report that the chemical is ubiquitous at the site.

***Optional Attachments:*** If you choose to attach one of the following, check the appropriate Attachments box at the bottom of the Tier Two form.

a. A site plan with site coordinates indicated for buildings, lots, areas, etc., throughout your facility.

b. A list of site coordinate abbreviations that correspond to buildings, lots, areas, etc., throughout your facility.

c. A description of dikes and other safeguard measures for storage locations throughout your facility.

**Example:**

You have benzene in the main room of the main building, and in tank 2 in tank field 10. You attach a site plan with coordinates as follows: main building = G-2, tank field 10 = B-6. Fill in the Storage Location as follows:

**B-6 (Tank 2) G-2 (Main Room)**

Under Title III, Section 324, you may elect to withhold location information on a specific chemical from disclosure to the public. If you choose to do so:

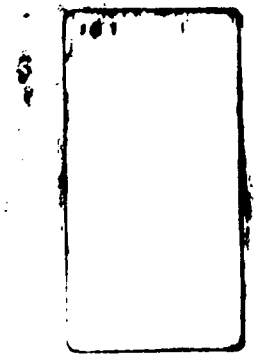
- Enter the word "confidential" in the Non-Confidential Location section of the Tier Two form on the first line of the storage location.
- On a separate Tier Two Confidential Location information Sheet, enter the name and CAS# of each chemical for which you are keeping the location confidential.
- Enter the appropriate location and storage information, as desribed above for non-confidential locations.
- Attach the Tier Two Confidential Location information Sheet to the Tier Two form. This separates confidential locations from other information that will be disclosed to the public.

***Editor's Note:** According to EPA, this section of the Tier II form is incorrect. However, facilities are instructed to follow the instructions as written. For clarification, contact EPA's tollfree Right-To-Know Hotline at (800) 535-0202.

# Access to Medical and Exposure Records

U.S. Department of Labor
Occupational Safety and Health Administration
1988

OSHA 3110



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The information contained in this publication is not considered a substitute for any provisions of the standard.

# Access to Medical and Exposure Records

U.S. Department of Labor
Ann McLaughlin, Secretary

Occupational Safety and Health Administration
John Pendergrass, Assistant Secretary
1988

OSHA 3110

# Introduction

More than 32 million workers may be exposed to toxic substances and harmful physical agents to an extent that may severely impair their health. Yet workers are often the least informed about the toxic exposures they face and their potential health effects.

In 1980, the Occupational Safety and Health Administration (OSHA) issued a standard requiring employers to provide employees with information to assist in the management of their own safety and health. The standard, "Access to Employee Exposure and Medical Records" (29 CFR 1910.20), permits direct access by employees or their designated representatives and by OSHA to employer-maintained exposure and medical records.* This access is designed to yield both direct and indirect improvements in the detection, treatment, and prevention of occupational disease. For example, access to these records will enable workers to determine patterns of health impairment and disease and to establish causal relationships between disease and exposure to particular hazards. Access to these records also should result in a decreased incidence of occupational exposure and should aid in designing and implementing new control measures.

Although OSHA revised the standard in 1988 to eliminate certain recordkeeping requirements and to provide additional protection for employer trade secrets, the standard still provides employees with the basic right to know the extent of their exposure to the harmful substances they work with and any associated health effects. This knowledge, in turn, allows them to detect, treat, and help prevent occupational disease.

*Note: The standard limits access only to those employees who are, have been (including former employees), or will be exposed to toxic substances or harmful physical agents.

# Access

*"Access,"* for the purpose of the standard, means the right and opportunity to examine and copy. Access to employee medical and exposure records must be provided in a reasonable manner and place. If access cannot be provided within 15 days after the employee's request, the employer must state the reason for the delay and the earliest date when the records will be made available. Responses to initial requests, and new information that has been added to an initial request, are to be provided without cost to the employee or representative. The employer may give employees copies of the requested records, give the employees the records and the use of mechanical copying facilities so the employee may copy the records, or lend employees their records for copying off the premises. In addition, medical and exposure records are to be made available, on request, to OSHA representatives to examine and copy.

### Exposure Records

Upon request, the employer must provide the employee, or employee's designated representative access to employee exposure records. If no records exist, the employer must provide records of other employees with job duties similar to those of the employee. Access to these records does not require the written consent of the other employees. In addition, these records must reasonably indicate the identity, amount, and nature of the toxic substances or harmful physical agents to which the employee has been exposed. Union representatives must indicate an occupational health need for requested records when seeking access to exposure records without the written authorization of the employee(s) involved.

### Medical Records

The employer also must provide employees and their designated representatives access to medical records relevant to the employee. Access to the medical records of another employee may be provided only with the specific written consent of that employee. The standard provides a suitable sample authorization letter for this purpose (see page 7 for sample authorization letter). Prior to employee access to medical records, physicians, on behalf of employers, are encouraged to discuss with employees the contents of their medical records; physicians also may recommend ways of disclosing medical records other than by direct employee access. Where appropriate, a physician representing the employer can elect to disclose information on specific diagnoses



of terminal illness or psychiatric conditions only to an employee's designated representative, and not directly to the employee. In addition, a physician, nurse, or other responsible health care person who maintains medical records may delete from requested medical records the names of persons who provided confidential information concerning an employee's health status.

### Analyses Using Exposure or Medical Records

The standard assures that an employee (or designated representative), as well as OSHA, can have access to analyses that were developed using information from exposure or medical records about the employee's working conditions or workplaces. Personal identities, such as names, addresses, social security and payroll numbers, age, race, and sex, must be removed from the data analyses prior to access.

### Trade Secrets

In providing access to records, an employer may withhold trade secret information but must provide information needed to protect employee health. Where it is necessary to protect employee health, the employer may be required to release trade secret information but may condition access on a written agreement not to abuse the trade secret or to disclose the chemical's identity.

An employer also may delete from records any trade secret that discloses manufacturing processes or the percentage of a chemical substance in a mixture. The employer must, however, state when such deletions are made. When the deletion impairs the evaluation of where or when exposure occurs, the employer must provide alternative information that is sufficient to permit the requester to make such evaluations.

The employer also may withhold a specific chemical identity when the employer can demonstrate it is a trade secret, the employer states this to the requester, and all other information on the properties and effects of the toxic substance is disclosed. The specific chemical identity, however, must be disclosed to a treating physician or nurse when that physician or nurse states that a medical emergency exists and the identity is necessary for treatment. When the emergency is over, the employer may require the physician or nurse to sign a confidentiality agreement.

The employer also must provide access to a specific chemical identity in *non-emergency situations* to an employee, an employee's designated representative or a health care professional if it will be used for one or more of the following activities:

- Assess the hazards of the chemicals to which employees will be exposed.
- Conduct or assess sampling of the workplace atmosphere to determine employee exposure levels.
- Conduct pre-assignment or periodic medical surveillance of exposed employees.
- Provide medical treatment to exposed employees.
- Select or assess appropriate personal protective equipment for exposed employees.
- Design or assess engineering controls or other protective measures for exposed employees.
- Conduct studies to determine the health effects of exposure.

In these instances, however, the employer may require the requester to submit a written statement of need, the reasons why alternative information will not suffice, and to sign a confidentiality agreement not to use the information for any purpose other than the health need stated and not to release it under any circumstances, except to OSHA.

The standard further prescribes the steps employers must follow if they decide not to disclose the specific chemical identity requested by the health professional, employee, or designated representative. Briefly, these steps are as follows:

- Provide a written denial.
- Provide the denial within 30 days of the request.
- Provide evidence that the chemical identity is a trade secret.
- Explain why alternative information is adequate.
- Give specific reasons for the denial.

An employee, designated representative, or health professional may refer such a denial to OSHA for review and comment.



## Employee Information

At the time of initial employment and at least annually thereafter, employees must be told of the existence, location, and availability of their medical and exposure records. The employer also must inform each employee of his or her rights under the access standard and make copies of the standard available. Employees also must be told who is responsible for maintaining and providing access to records.

## Transfer of Records

When an employer ceases to do business, he or she is required to provide the successor employer with all employee medical and exposure records. When there is no successor to receive the records for the prescribed period, the employer must inform the current affected employees of their access rights at least 3 months prior to the cessation of business and must notify the Director of the National Institute for Occupational Safety and Health (NIOSH) in writing at least 3 months prior to the disposal of records.

## Retention of Records

Each employer must preserve and maintain accurate medical and exposure records for each employee. The access standard imposes no obligation to create records but does apply to any medical or exposure records created by the employer in compliance with other OSHA rules or at his or her own volition.

Exposure records and data analyses based on them are to be kept for 30 years. Medical records are to be kept for at least the duration of employment plus 30 years. Background data for exposure records such as laboratory reports and work sheets need be kept only for 1 year. Records of employees who have worked for less than 1 year need not be retained after employment, but the employer must provide these records to the employee upon termination of employment. First-aid records of one-time treatment need not be retained for any specified period.

OSHA does not mandate the form, manner, or process by which an employer preserves a record, except that chest X-ray films must be preserved in their original state.

Three months before disposing of records, employers must notify the Director of NIOSH.

## Hazard Communication

The OSHA Hazard Communication (29 CFR 1910.1200) standard helps reduce the incidence of illnesses and injuries caused by chemical hazards in the workplace by informing employees of the nature and effect of hazardous materials they work with. The standard requires the development of Material Safety Data Sheets (MSDS's) and their communication to all employees exposed to chemical hazards. An MSDS describes the physical and chemical properties of products, health hazards and routes of exposure, precautions for safe handling and use, emergency and first-aid procedures, reactivity data, and control measures. Information on an MSDS aids in the selection of safe products and their safe handling and use, and helps employees to respond effectively to emergency situations.

OSHA's Access rule supplements the Hazard Communication standard and its informational benefits for employees by adding information on exposure and medical effects. Both standards together give employees and employers the information they need to help avoid, reduce or eliminate workplace hazards.

## State Plan Standards

States with OSHA-approved occupational safety and health programs must adopt an access standard that is at least as effective as OSHA's standard, subject to OSHA approval and monitoring (see page 8 for state plan states). Since the requirement is that state standards be "at least as effective as" the federal rule, they may differ in some respects.



### Sample Authorization Letter for the Release of Employee Medical Record Information to a Designated Representative (Nonmandatory)

I, _____, hereby authorize _____
(full name of worker/patient) (individual or

_____ to release to
organization holding the medical records)

_____
(individual or organization authorized to receive the medical

_____, the following medical information from my personal
information)

medical records: _____
(Describe generally the information desired to be released)

_____

_____

_____

I give my permission for this medical information to be used for the following purpose: _____

_____, but I do not
give permission for any other use or re-disclosure of this information.

(Note: Several extra lines are provided below so that you can place additional restrictions on this authorization letter if you want to. You may, however, leave these lines blank. On the other hand, you may want to (1) specify a particular expiration date for this letter (if less than 1 year); (2) describe medical information to be created in the future that you intend to be covered by this authorization letter; or (3) describe portions of the medical information in your records that you do not intend to be released as a result of this letter.)

_____

_____

_____

_____

_____

_____
Full name of Employee or Legal Representative

_____
Signature of Employee or Legal Representative

_____
Date of Signature

## States with Approved Plans

Jim Sampson, Commissioner
Alaska Department of Labor
P.O. Box 21149
Juneau, Alaska 99802-1149
(907) 465-2700

Larry Etchechury, Director
Industrial Commission of Arizona
800 W. Washington
Phoenix, Arizona 85007
(602) 255-5795

Ron Rinaldi, Director
California Department of
Industrial Relations
525 Golden Gate Avenue
San Francisco, California 94102
(415) 557-3356

Betty L. Tianti, Commissioner
Connecticut Department of Labor
200 Folly Brook Boulevard
Wethersfield, Connecticut 06109
(203) 566-5123

Mario R. Ramil, Director
Hawaii Department of Labor and
Industrial Relations
830 Punchbowl Street
Honolulu, Hawaii 96813
(808) 548-3150

Donald W. Moreau, Commissioner
Indiana Department of Labor
1013 State Office Building
100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-2663

Allen J. Meier, Commissioner
Iowa Division of Labor Services
1000 E. Grand Avenue
Des Moines, Iowa 50319
(515) 281-3447

Carole Palmore, Secretary
Kentucky Labor Cabinet
U.S. Highway 127 South
Frankfort, Kentucky 40601
(502) 564-3070

Henry Koellein, Jr.,
Commissioner
Maryland Division of Labor and
Industry
Department of Licensing and
Regulation
501 St Paul Place
Baltimore, Maryland 21202-2272
(301) 333-4176

Elizabeth Howe, Director
Michigan Department of Labor
309 N. Washington
P.O. Box 30015
Lansing, Michigan 48909
(517) 373-9600

Raj M. Wiener, Acting Director
Michigan Department of Public Health
3423 North Logan Street
Box 30195
Lansing, Michigan 48909
(517) 335-8022



Ray H. Bohn, Commissioner
Minnesota Department of Labor and
Industry
443 Lafayette Road
St. Paul, Minnesota 55101
(612) 296-2342

Michael J. Tyler, Administrator
Nevada Department of Industrial
Relations
Division of Occupational Safety
and Health
Capitol Complex
1370 S. Curry Street
Carson City, Nevada 89710
(702) 885-5240

Richard Mitzelfelt, Director
New Mexico Environmental
Improvement Division
Health and Environment Department
P.O. Box 968
Santa Fe, New Mexico 87504-0968
(505) 827-2850

Thomas F. Hartnett, Commissioner
New York Department of Labor
One Main Street
Brooklyn, New York 11201
(718) 797-7281

John C. Brooks, Commissioner
North Carolina Department of Labor
4 West Edenton Street
Raleigh, North Carolina 27603
(919) 733-7166

John A. Pompei, Administrator
Accident Prevention Division
Oregon Department of Insurance
and Finance
Labor and Industries Building
Salem, Oregon 97310
(503) 378-3304

Juan Manuel Rivera Gonzalez,
Secretary
Puerto Rico Department of Labor
and Human Resources
Prudencio Rivera Martinez Bldg.
505 Munoz Rivera Avenue
Hato Rey, Puerto Rico 00918
(809) 754-2119-22

Edgar L. McGowan, Commissioner
South Carolina Department of Labor
3600 Forest Drive
P.O. Box 11329
Columbia, South Carolina 29211-1329
(803) 734-9594

James R. White, Commissioner
Tennessee Department of Labor
Attn: Robert Taylor
501 Union Building
Sutie "A"-2nd Floor
Nashville, Tennessee 37219
(615) 741-2582

Douglas J. McVey, Administrator
Utah Occupational Safety and Health
160 East 300 South
P.O. Box 5800
Salt Lake City, Utah 84110-5800
(801) 530-6900

Jeanne Van Vlandren, Commissioner
Vermont Department of Labor
and Industry
120 State Street
Montpelier, Vermont 05602
(802) 828-2765

Paul Arnold, Commissioner
Virgin Islands Department of Labor
Box 890
Christiansted
St. Croix, Virgin Islands 00820
(809) 773-1994

Carol Amato, Commissioner
Virginia Department of Labor
and Industry
P.O. Box 12064
Richmond, Virginia 23241-0064
(804) 786-2376

Joseph A. Dear, Director
Washington Department of Labor
and Industries
General Administration Building
Room 334-AX-31
Olympia, Washington 98504-0631
(206) 753-6307

John Chambers, Assistant
Administrator
Wyoming Department of Occupational
Health and Safety
604 East 25th Street
Cheyenne, Wyoming 82002
(307) 777-7786 or 777-7787

Approved state plans are required to provide standards and enforcement programs, as well as voluntary compliance activities, that must be at least as effective as the federal OSHA standard. Note: Connecticut and New York plans cover public employees only. In California, OSHA currently is exercising concurrent private-sector federal enforcement authority.



## Related Publications

Single free copies of the following publications can be obtained from the OSHA Publications Office, U.S. Department of Labor, 200 Constitution Avenue, N.W., Room N-3101, Washington, D.C. 20210. Send a self-addressed mailing label with your request.

**OSHA 2056—All About OSHA**

**OSHA 3084—Chemical Hazard Communication**

**OSHA 3047—Consultation Services for the Employer**

**OSHA 3021—OSHA: Employee Workplace Rights**

**OSHA 2098—OSHA Inspections**

**OSHA 3077—Personal Protective Equipment**

**OSHA 3079—Respiratory Protection**

**OSHA 3091—Safety and Health Guide for the Chemical Industry**

**OSHA 2254—Training Requirements in OSHA Standards and Training Guidelines**

**BLS Publication OMB No. 1220-0029—Recordkeeping Guidelines for Occupational Injuries and Illnesses**

A "Hazard Communication Compliance Kit" may be ordered from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 for $18.00 ($22.50 for foreign addresses). Specify OSHA Publication 3104, GPO Order Number 929-022-00000-9. The kit can be ordered from GPO by phone using VISA or MasterCard; call (202) 783-3238.

# U.S. Department of Labor
# Occupational Safety and Health Administration
# Regional Offices

**Region I**
**(CT,* MA, ME, NH, RI, VT*)**
133 Portland Street
1st Floor
Boston, MA 02114
Telephone:(617) 565-7164

**Region II**
**(NJ, NY,* PR, VI*)**
201 Varick Street
Room 670
New York, NY 10014
Telephone: (212) 337-2378

**Region III**
**(DC, DE, MD,* PA, VA,* WV)**
Gateway Building, Suite 2100
3535 Market Street
Philadelphia, PA 19104
Telephone: (215) 596-1201

**Region IV**
**(AL, FL, GA, KY,* MS, NC,* SC,* TN*)**
1375 Peachtree Street, N.E.
Suite 587
Atlanta, GA 30367
Telephone: (404) 347-3573

**Region V**
**(IL, IN,* MI,* MN,* OH, WI)**
230 South Dearborn Street
Room 3244
Chicago, IL 60604
Telephone: (312) 353-2220

**Region VI**
**(AR, LA, NM,* OK, TX)**
525 Griffin Street
Room 602
Dallas, TX 75202
Telephone: (214) 767-4731

**Region VII**
**(IA,* KS, MO, NE)**
911 Walnut Street
Room 406
Kansas City, MO 64106
Telephone: (816) 426-5861

**Region VIII**
**(CO, MT, ND, SD, UT,* WY*)**
Federal Building, Room 1576
1961 Stout Street
Denver, CO 80294
Telephone: (303) 844-3061

**Region IX**
**(AZ,* CA,* HI,* NV*)**
71 Stevenson Street
Room 415
San Francisco, CA 94105
Telephone: (415) 995-5672

**Region X**
**(AK,* ID, OR,* WA*)**
Federal Office Building
909 First Avenue
Room 6003
Seattle, WA 98174
Telephone: (206) 442-5930

*These states and territories operate their own OSHA-approved job safety and health programs (the Connecticut and New York plans cover public employees only and OSHA currently is exercising concurrent private-sector Federal enforcement authority in California).

METCO
Flame Spray Equipment and Supplies

TECHNICAL BULLETIN

METCO INC. 1101 Prospect Avenue, Westbury, L.I., N.Y. 11590

SUPPLIES
POWDERS

ISSUED: 15 Apr 82
SUPERSEDES: 22 Apr 7
FILE: Section 1b

# METCO 81NS - 75 CHROMIUM CARBIDE - 25 NICKEL CHROMIUM POWDER

Summary: METCO 81NS is a mixture of crystalline chromium carbide and nickel chromium powders.

It produces coatings for use in temperatures ranging from 1000°F to 1500°F (540°C to 815°C) to resist wear by abrasive grains, hard surfaces and fretting. It is also used as an abrasive coating in machine element clearance control applications, particularly in jet engines. See the METCO Technical Bulletin on "Abradable and Abrasive Coatings".

This revision has been issued to:

1. Add specification conformances to General Electric Company Rolls Royce Ltd., and Koppers Company Material Specifications.

2. Remove METCO 2M Plasma System Parameters.

3. Add METCO Type 7M Plasma System Parameters.

## COATING SELECTION

METCO 81NS can be sprayed only with METCO plasma flame spray equipment. It cannot be sprayed with standard ThermoSpray equipment.

## SPECIFICATION CONFORMANCE

METCO 81NS meets the requirements of Pratt and Whitney Aircraft Corporation Specification, PWA 1307, Rolls Royce Specification MSRR 9507/2, General Electric Company Specification B50TF137, Class B and Koppers Company Specification K-1001.

## APPLICATIONS

METCO 81NS is recommended for the following applications.

| Coating No. | Coating Function | Typical Application |
|---|---|---|
| P81-10 | Resist Abrasive Grains (High Temperature) | Fuel rod mandrel |
| P81-10 | Resist Hard Surfaces (High Temperature) | Hot forming dies |
| P81-11 | Abrasive Coatings | Jet engine rotors |
| P81-12 | Resist Fretting (High Temperature-No Intended Motion) | Turbine baffle dampeners |
| P81-13 | Resist Fretting (High Temperature-No Intended Motion) | Turbine exhaust struts |

NOTE: Coating P81-13 is intended for application where hydrogen cannot be used as the secondary gas.

## POWDER CHARACTERISTICS

| | | |
|---|---|---|
| Typical Composition: | Chromium Carbide ($Cr_3C_2$) | 75.0% |
| | Nickel | 20.0% |
| | Chromium | 5.0% |
| Typical Size Range: | -140 mesh +10 microns | |
| | -106 +10 microns | |
| Melting Point: | 2550°F (1400°C) - Nickel-Chromium Constituent | |

| TYPICAL PHYSICAL PROPERTIES OF THE COATINGS | Standard Parameters | Pratt & Whitney Parameters |
|---|---|---|
| Texture, as-sprayed, microinches aa: | 400-500 | --- |
| Finish, ground, 60 grit SiC, microinches aa: | 30-40 | --- |
| Finish, lapped, microinches aa: | 5-8 | --- |
| Macrohardness, $N_2/H_2$ | Rc39 | --- |
| $Ar/H_2$ | Rc37 | Rc32 |
| Microhardness: | $Knoop_{50}$1850 | $Knoop_{50}$1850 |
| Porosity: | Medium | Low |
| Density (g/cc): | 5.9 | 6.6 |
| Weight, $lb/ft^2/.001"$: | .031 | .034 |
| $kg/m^2/0.1mm$: | .59 | .65 |

NOTE: The Pratt and Whitney Aircraft Corporation has established certain requirements for plasma flame sprayed coatings of chromium carbide. Special argon/hydrogen parameters are used to produce them. These special parameters, when used to spray METCO 81NS, lead to a severe loss of chromium carbide in the coating, lower deposit efficiency and denser, but softer, coatings than is the case when standard parameters are used.

## FINISHING

Finish by grinding with a 60 grit, green silicon carbide or diamond wheel, using standard wet grinding techniques.

Machine finishing coatings of METCO 81NS is not recommended. A very coarse finish would be expected.

## SAFETY MEASURES

Flame spraying is a completely safe process when performed in accordance with "METCO's Safety Measures". Familiarize yourself with local safety regulations before starting spraying operations. DO NOT operate your spraying equipment or use the spray material supplied before you have thoroughly read the METCO Instruction Manual.

DISREGARDING THESE INSTRUCTIONS MAY BE DANGEGOUS TO YOUR HEALTH.

- Continued -

| | SYSTEM PARAMETERS | | | Pratt & Whitney |
|---|---|---|---|---|
| | SET #1 $N_2/H_2$ | SET #2 $Ar/H_2$ | SET #3 Ar/He | SET #4 $Ar/H_2$ |
| **SPRAY GUN** | | | | |
| Type: | 3MB/7MB | 3MB/7MB | 3MB/7MB | 3MB/7MB |
| Nozzle: | G | GH | GP | GP |
| Powder Port: | 2 | 2 | 3 | 2 |
| Uni-Jet Ring: (Note 1) | N/A | 3M 275 | 3M 275 | 3M 275 |
| Insulator: (Note 2) | 7M 55 | 7M 50 | 7M 50 | 7M 50 |
| **GAS** | | | | |
| Pressure - Primary, psi: | 50 | 100 | 75 | 75 |
| bars: | 3.45 | 6.89 | 5.17 | 5.17 |
| Secondary, psi: | 50 | 50 | 55 | 50 |
| bars: | 3.45 | 3.45 | 3.79 | 3.45 |
| Flow - Primary: | 75 | 80 | 35 | 100 |
| Secondary: (Note 3) | 15 | 15 | 50 | 15 |
| **POWER** | | | | |
| Unit: (Note 4) | | | Parallel | |
| Arc Amps: | 500 | 500 | 900 | 300 |
| Arc Volts: | 74-80 | 64-70 | 40-45 | 75-80 |
| **POWDER FEED** | | | | |
| Unit: 3MP or 3MP-DUAL | | | | |
| Meter Wheel: | S | S | L | S |
| RPM: (Note 5) | 35 | 25 | 15 | 15 |
| Carrier Gas Flow: | 37 | 37 | 50 | 37 |
| **SPRAYING** (Note 7) | | | | |
| Spray Distance, inches: | 3-5 | 3-5 | 4 | 3-5 |
| mm: | 75-125 | 75-125 | 100 | 75-125 |
| Spray Rate, lb/hr: | 15 | 10 | 2.5 | 5 |
| kg/hr: | 6.8 | 4.5 | 1.1 | 2.3 |
| Coverage, $ft^3/hr/.001"$: | 310 | 193 | - | 44 |
| $m^3/hr/0.1mm$: | 7.2 | 4.5 | - | 1.0 |
| Powder Required, $lb/ft^2/.001"$: | .048 | .052 | - | .113 |
| $kg/m^2/0.1mm$: | .92 | .99 | - | 2.16 |
| Deposit Efficiency, %: (Note 6) | 65 | 60 | 30 | 30 |
| Deposition Rate, lb/hr: | 9.8 | 6 | 0.8 | 1.5 |
| kg/hr: | 4.4 | 2.7 | 0.4 | 0.7 |

NOTES:

1. With the Type 3MB Gun, use Cat. No. 3M 275 Uni-Jet Ring with the Cat. No. 3M 276 Electrode Nut. Install ring with the 45° internal recess facing the nut and with the jet hole toward the top of the gun, approximately 180° from the gas inlet.
2. With the Type 7MB Gun, use Cat. No. 7M 50 Insulator with Argon and Cat. No. 7M 55 Insulator with Nitrogen.
3. The secondary gas flow shown in the chart may be adjusted as much as ±5 points, if necessary, to obtain voltage within the range shown; EXCEPT THAT the secondary gas flow may not be reduced to zero, and hydrogen flow may not exceed 25. If the required voltage is not obtained with this preliminary gas flow adjustment, check the equipment for a worn nozzle, a worn electrode, or a gas leak between the flowmeter and the gun. If there is no gas leak, and the nozzle and electrode are not badly worn, further adjustment of the secondary gas flow, up to an additional ±5 points, is permissible, if this second adjustment does not result in a flow of zero or a hydrogen flow exceeding 25. If the required voltage is not then obtained, replace the worn parts.
4. The METCO Type 2MR, 4MR, 6MR or 7MR Power Supply Units can be used. CAUTION: When using the Type 6MR and 7MR units with a Type 3MB Gun, do not exceed 40KW operation
5. Use as a starting point. Adjust as necessary to obtain spray rate shown.
6. Rounded off for easy calculation.
7. Spray rates and deposit efficiencies shown were obtained by skilled operators with all equipment in first-class condition.

- Continued -

PRODUCING RECOMMENDED COATINGS

| Coating No. | Instructions |
|---|---|
| P81-10 | Surface Preparation: Any standard method<br>Spraying: Parameter Set #1<br>Finishing: Grind |
| P81-11 | Surface Preparation: Any standard method<br>Spraying: Parameter Set #2<br>Finishing: Grind |
| P81-12 | Surface Preparation: Any standard method<br>Spraying: Parameter Set #4<br>Finishing: Grind |
| P81-13 | Surface Preparation: Any standard method<br>Spraying: Parameter Set #3<br>Finishing: Grind |

RPZ/lm

METCO®
PERKIN ELMER™

# METCO CLEANING SOLVENT

**A NON-FLAMMABLE SOLVENT FOR DEGREASING AND CLEANING METAL SURFACES PRIOR TO THERMAL SPRAYING.**

**INSTRUCTIONS:**

Use cold. Do not use for vapor phase degreasing.

Wipe or brush, using rags or brush.

Do not pour used solvent back in can.

Do not use on rubber or plastics.

Do not use in oxygen systems.

Do not contaminate with water.

Do not vaporize in presence of ignition sources.

**CONTENTS 1 GALLON U.S.**

Metco Division
The Perkin-Elmer Corporation
Westbury, NY 11590-0201

Label Q5036. Iss. h

IDENT. NO. 05035

**HAZARD NOTICE:** This material is for the thermal spraying process. Consu
the Material Safety Data Sheet, and applicable Federal and local jurisdiction
regulations before utilizing this product. This product should not be ingested;
should be avoided. Local ventilation, skin and respiratory protection should
Good housekeeping and personal hygiene should be practiced. Some indivi
sensitivity to exposure. Failure to observe proper practices may result in he

**FOR EMERGENCY ASSISTANCE CA
CHEMTREC – DAY OR NIGHT
1-800-424-9300**

**HARMFUL OR FATAL IF INHALED. HARMFUL OR FATAL IF SWALLOW
CONTAINS 1, 1, 1 - TRICHLOROETHANE.
USE ONLY WITH ADEQUATE VENTILATION. FOR INDUSTRIAL USE ON**

**Specific Effects Of Overexposure:**
**1, 1, 1 - Trichloroethane:** Hazard by inhalation, ingestion, skin and eye co
anesthetic effect and has been shown to cause pathological changes in the
animal species. Inhalation or ingestion may produce symptoms of dizziness
perceptions, motor activity changes, irritability, aggression, diarrhea, nausea
gastrointestinal tract changes. Narcotic in high concentrations. Cardiac ser
exposures. Long term overexposure may cause liver/kidney damage. Skin
defatting of the skin causing redness and scaliness. Eye contact may produ
**Target Organs:** Cardiovascular system, Central nervous system, gastroint
eyes.

**In Case of Fire:**
Extinguishing Media: Use National Fire Protection Association (NFPA) Cla
dioxide, dry chemical or foam).
Unusual Fire and Explosion Hazards: 1, 1, 1 - Trichloroethane is moderate
temperatures; no flash point when tested in conventional closed tester at o
Special Fire Fighting Procedures: Fire fighters should wear a NIOSH/MSH
self-contained breathing apparatus for possible exposure to hydrogen chlo
phosgene. When heated to decomposition can emit highly toxic phosgene
chlorine. May also be decomposed slowly by contact with water to hydrog

**In Case of Spill or Leak:**
Immediately evacuate the area. Unprotected personnel should move upw
equipped with proper respirator and skin/eye protection should be permitte
as necessary to prevent contamination of ground and surface waters.

**Special Protection Information:**
Adequate local/general ventilation should be provided when using this pr
respiratory, skin, eye and hand protection should be utilized when using t

**Special Precautions:**
Precautions to be Taken in Handling and Storing: Store away from incom
closed when not in use. Do not store in open, unlabeled or mislabeled co
contents to bottles or other unlabeled containers. Store in a cool and dry
ventilated or confined areas.
Other Precautions: Avoid oral ingestion and excessive skin contact. Cle
especially before eating. DO NOT FLAME CUT, BRAZE OR WELD EM
KEEP CONTAINERS CLOSED WHEN NOT IN USE.
Waste Disposal Method: Dispose of the chemical materials and/or their
federal, state or local laws/regulations regarding disposal.

**USING THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) H
PRODUCT'S HAZARD CLASSIFICATION IS:**

| | |
|---|---|
| HEALTH | 3 |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | S |

Flash Point: None at ordinary room temperatures.

UN2831, ORM-A

**WARNING:** Contains Methyl Chloroform, a substance that harms publ
destroying ozone in the upper atmosphere.

*While this information is furnished in good faith, no guaranty is made a
the Thermal Spraying Process, and relevant instructions should be co
assumes all risks in connection with the use of this material. METCO
liable for special, incidental or consequential damages in connection w
damage or injury caused by this material if used for any other purpose
or if proper safety and health practices are not followed.*

**TRADE NAME** SUPER RUBBER REJUVENATOR

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
Eye-mild irritation. Inhalation-irritation of nose and lung. Skin-drying, redness, itching.

EMERGENCY AND FIRST AID PROCEDURES
Fresh air. Eye-flush with large volume of water. Skin-wash with soap and water, apply hand cream. In serious cases call physician.

## SECTION VI - REACTIVITY DATA

| | | | |
|---|---|---|---|
| STABILITY | UNSTABLE | | CONDITIONS TO AVOID |
| | STABLE | X | |

INCOMPATIBILITY (Materials to Avoid)
Strong, oxidizing materials

HAZARDOUS DECOMPOSITION PRODUCTS
CO, $CO_2$ on ignition

| | | | |
|---|---|---|---|
| HAZARDOUS POLYMERIZATION | MAY OCCUR | | CONDITIONS TO AVOID |
| | WILL NOT OCCUR | X | |

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Mop or wipe up. Remove residue with soap and water.

WASTE DISPOSAL METHOD
Incineration. Subject to local sanitation regulations.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type)
Self-contained breathing apparatus if TLV exceeded

| | | |
|---|---|---|
| VENTILATION | LOCAL EXHAUST: Standard | SPECIAL |
| | MECHANICAL (General) | OTHER |

PROTECTIVE GLOVES
Suggested. Rubber or synthetic

EYE PROTECTION
safety glasses

OTHER PROTECTIVE EQUIPMENT

## SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep away from sparks, open flames of high heat sources.

OTHER PRECAUTIONS



*Low rate of evaporation greatly reduces possibility of reaching TLV

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# FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| **Toxic Chemical, Category, or Generic Name** |
| Nickel Powder |

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE
(See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 93

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?

[ ] Yes (Answer question 2.2; Attach substantiation forms)

[X] No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy: [ ] Sanitized [X] Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official

Joe Macri, Manager Facilities and Transportation

Signature: Macri

Date Signed: June 30, 1994

**SECTION 4. FACILITY IDENTIFICATION**

4.1

Facility or Establishment Name: Metco Division Perkin-Elmer

TRI Facility ID Number: 11590PRKNL1101P

Street Address: 1101 Prospect Avenue

City: Westbury

County: Nassau

State: New York

Zip Code: 11590

Mailing Address (if different from street address):

City:

State:

Zip Code:

PUT LABEL HERE

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# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | | | b. ☒ Part of a facility | | | |
| 4.3 | Technical Contact | Name: Joe Macri | | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.4 | Public Contact | Name: Joe Macri | | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.5 | SIC Code (4-digit) | a. 3542 | b. | c. | d. | e. | f. | |
| 4.6 | Latitude and Longitude | Latitude | | | Longitude | | | |
| | | Degrees | Minutes | Seconds | Degrees | Minutes | Seconds | |
| | | 075 | 09 | 50 | 027 | 53 | 16 | |
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a. 05-773-1663 | | | | | | |
| | | b. | | | | | | |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a. NYD131318651 | | | | | | |
| | | b. | | | | | | |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a. N/A | | | | | | |
| | | b. | | | | | | |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a. N/A | | | | | | |
| | | b. | | | | | | |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company | |
| | ☐ NA | Perkin-Elmer Corporation |
| 5.2 | Parent Company's Dun & Bradstreet Number | |
| | ☐ NA | (9 digits) 00-118-4480 |

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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440-02-0 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | Nickel |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.) |
| | N/A |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) |
| | N/A |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | |
|---|---|---|---|
| 3.1 | Manufacture the toxic chemical: | a. ☐ Produce<br>b. ☐ Import | If produce or import:<br>c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | Process the toxic chemical: | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. ☐ As an article component<br>d. ☐ Repackaging |
| 3.3 | Otherwise use the toxic chemical: | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☒ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 | (Enter two-digit code from instruction package.) |

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/ year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | [X] NA | | | |
| 5.2 | Stack or point air emissions | [ ] NA | C | C | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name<br>N/A | | | | |
| 5.3.2 | Stream or Water Body Name<br>N/A | | | | |
| 5.3.3 | Stream or Water Body Name<br>N/A | | | | |
| 5.4 | Underground injections on-site | [X] NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | [X] NA | | | |
| 5.5.2 | Land treatment/ application farming | [X] NA | | | |
| 5.5.3 | Surface impoundment | [X] NA | | | |
| 5.5.4 | Other disposal | [X] NA | | | |

[ ] Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|
| 5.3.__ | Stream or Water Body Name<br>N/A | | | |
| 5.3.__ | Stream or Water Body Name<br>N/A | | | |
| 5.3.__ | Stream or Water Body Name<br>N/A | | | |

## SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| N/A | |

**6.1.B POTW Name and Location Information**

| 6.1.B.__ POTW Name | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

**If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Sections 5.3/6.1 page this is, here. [ ] (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11590PRKNL1101P

Toxic Chemical, Category, or Generic Name: Nickel Powder

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: Loni-Jo Metal Corporation

Street Address: 70 Kinkel Street

City: Westbury

County: Nassau

State: New York

Zip Code: 11590

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 3700 | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: N/A

Street Address:

City:

County:

State:

Zip Code:

Is location under control of reporting facility or parent company? [ ] Yes [ ] No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Section 6.2 page this is, here. [ ] (example: 1, 2, 3, etc.)**

Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] **Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.**

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes [ ] No [ ] |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes [ ] No [ ] |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes [ ] No [ ] |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes [ ] No [ ] |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes [ ] No [ ] |

**If additional copies of page 7 are attached, indicate the total number of pages in this box [ ] and indicate which page 7 this is, here. [ ] (example: 1, 2, 3, etc.)**

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.**

**Energy Recovery Methods [enter 3-character code(s)]**

1 [ ] 2 [ ] 3 [ ] 4 [ ]

## SECTION 7C. ON-SITE RECYCLING PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.**

**Recycling Methods [enter 3-character code(s)]**

1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 [ ]

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Chemical, Category, or Generic Name |
| Nickel Powder |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | *All quantity estimates can be reported using up to two significant figures.* | Column A 1992 (pounds/year) | Column B 1993 (pounds/year) | Column C 1994 (pounds/year) | Column D 1995 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released * | 0 | 0 | 0 | 0 |
| 8.2 | Quantity used for energy recovery on-site | 0 | 0 | 0 | 0 |
| 8.3 | Quantity used for energy recovery off-site | 0 | 0 | 0 | 0 |
| 8.4 | Quantity recycled on-site | 0 | 0 | 0 | 0 |
| 8.5 | Quantity recycled off-site | 3000 | 3700 | 4000 | 4000 |
| 8.6 | Quantity treated on-site | 0 | 0 | 0 | 0 |
| 8.7 | Quantity treated off-site | 0 | 0 | 0 | 0 |

| | | |
|---|---|---|
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | N/A |
| 8.9 | Production ratio or activity index | .89 |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | W19 | a. T04 | b. T06 | c. |
| 8.10.2 | W39 | a. T04 | b. T10 | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | YES | NO |
|---|---|---|---|
| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | | X |

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

**ARISE INCORPORATED**

SENECA INSURANCE COMPANY, INC.

Corporate Plaza II, Suite 110
6480 Rockside Woods Blvd., South
Cleveland, Ohio 44131-2206
Phone (216) 447-4264
Fax (216) 642-4381

January 12, 1998

Mr. Larry Miles
Facility Manager
SULZER U.S. HOLDING, INC.
Sulzer Metco Inc.
1101 Prospect Avenue
Westbury, New York 11590

RE: **Jurisdictional Inspection**
Sulzer Metco Inc.
1101 Prospect Avenue
Westbury, New York
File No. 93690001.DE1

Dear Mr. Miles:

A jurisdictional inspection was performed at the captioned location on December 11, 1997, in the company of Mr. David Walzak, Facilities Specialist, for the purpose of renewing the Certificates of Operation as required by the State of New York. The following objects were inspected: Kewanee firetube boilers SM 321 and G6873.

No recommendations have been issued as a result of this inspection.

Please extend my thanks to Mr. Walzak for his cooperation and assistance. If you should have any questions or comments regarding this inspection, please contact our Cleveland office at (216) 447-4264.

Very truly yours,

Joseph T. Magee
Senior Consultant

JTM:els

cc: B. Fink/ARC, Arlington, TX
B. Briese/ARC, Knoxville, TN
E. Allen/ARISE, Cleveland, OH
B&M File

THIS REPORT DOES NOT PURPORT TO SET FORTH ALL HAZARDS NOR TO INDICATE THAT OTHER HAZARDS DO NOT EXIST.

American Risk Consultants Corp.

72 West End Avenue
Somerville, New Jersey 08876-1824
(908) 722-7980
FAX (908) 707-8532

January 14, 1998

Mr. L. Miles
Manager Facilities
SULZER, INC.
Sulzer Metco
1101 Prospect Avenue
Westbury, New York 11590

RE: Loss Prevention Report
Westbury, New York
File No. 705 0002

Dear Mr. Miles:

Enclosed is one copy of the Loss Prevention Report resulting from my November 24, 1997 visit to your facility.

Per our agreement with Sulzer US Holdings Risk Management, please respond in writing to the recommendations within 60 days of receiving this report. Your response should be mailed to Mr. Edward Waddell, American Risk Consultants Corp., 72 West End Avenue, Somerville, New Jersey 08876.

Please thank everyone at the facility for their cooperation and assistance during my visit.

I believe you will find the attached report self explanatory however, should you have any questions or comments, don't hesitate in contacting me.

Sincerely,

Edward Waddell

Edward Waddell
Account Engineer
Fire Protection

EW/pl
enclosure
cc: Mr. F. D'Ambrosio – Frenkel/New York
Mr. G. Keller – Winterthur/Dallas
Mr. W. Fink – ARCC/Dallas
Files

# LOSS PREVENTION REPORT

Fire and Associated Perils

for

**SULZER, INC.**
Sulzer Metco
1101 Prospect Avenue
Westbury, New York, USA

**Date Visited:** November 24, 1997

**Prepared By:** Edward L. Waddell
Somerville, New Jersey District Office
(908) 722-7980

**Conferred With:** Mr. L. Miles, Manager Facilities
Mr. M. Lydon, Environmental Health & Safety

## Changes and Comments

This was the first inspection visit made to this thermal spray coating equipment, research and development facility for the Winterthur International.

The purpose was to evaluate overall property loss prevention features and conditions relating to fire and associated perils.

Recommendations have been made to improve fire protection aspects of the risk, for the benefit of local management.

Also present at the closing conference was Mr. Frank D'Ambrosio of Frenkel & Co., Inc.

The facility has implemented a program of weekly sprinkler control valve inspections. A sprinkler valve list is used to record inspection results. Also included in the inspection are fire doors, waterflow alarm tests (every 2 months), and housekeeping issues.

This report does not purport to set forth all hazards nor to indicate that other hazards do not exist. However, we urge that recommendations presented, if any, be given serious consideration. We would be pleased to discuss alternative solutions.

## Major Recommendations

97-1 **Plasma Spraying.** Plasma spraying operations, performed within cut-off rooms, should be provided with additional protection features as follows:

A. All flammable gas cylinders, such as hydrogen, propylene and propane, should be stored outdoors to reduce the chance of a leaking or dropped cylinder creating a flammable gas cloud.

B. Manifolds should be provided at the point of gas entry into the building with shut-off valves, so the flow of flammable gasses can be stopped in the event of a fire in the plant, or gas leak at the point of use.

C. An approved gas monitoring system should be provided for each booth, set to alarm when a flammable gas leak is detected. The monitoring system should also be arranged to shut off the flow of gas if a leak is detected.

Discussion: Flammable gas cylinders stored inside buildings pose a threat, not only from a cylinder leak, but also in the event of fire originating in nearby ordinary combustibles, such as within the warehouse or cardboard flats area. Detonation of a hydrogen gas cylinder or other flammable gas cylinder in an enclosed area can cause significant damage to the facility, and make fire fighting extremely hazardous for public fire fighters.

## Other Recommendations

97-2 **Lab Room Gasses.** Natural gas supplies to lab benches should be shut-off at the main control valve when the rooms are not in use.

Discussion: An odor of natural gas was detected upon entering one of the seldom used lab rooms. It was determined that the main gas supply to the bench was open and the faint smell may have been due to slight leakage at the shut-off valve located at the workbench. Undetected gasses can build-up and be ignited by sparking of an electric switch, ceiling light fixture, or appliance in the room.

97-3 **Computer Room.** The entrance door to the computer room should be repaired so it will close completely.

Discussion: The computer room door has a loose hinge and will not close tightly, without effort. In the event of fire, Halon gas will likely leak through the doorway, diminishing the Halon's extinguishing ability.

## Other Recommendations - continued

97-4 **Combustible Storage (Computer Room).** Combustibles such as cardboard boxes and excess tapes should be removed from the computer room so as not to create a fire exposure to computer equipment.

Discussion: Halon gas is effective on controlling fire within electronic equipment but is not always effective on deep seated fires associated with ordinary combustibles. A reduction of combustibles within this room and the use of metal cabinets for tapes will lessen the probability of uncontrolled fire.

97-5 **Smoke Detectors.** Smoke detection should be provided in the 6 ft. x 50 ft. power supply room electrical panel room.

Discussion: This power supply room currently contains no combustibles, and a $CO_2$ extinguisher is provided in the area. An electrical fire, however, can develop quickly within an electrical cabinet and remain undetected for a period of time. Smoke detectors will ensure that fire is detected promptly.

97-6 **Met Lab.** Acids, caustics and flammable liquids should be stored within separate metal cabinets in lab areas.

Discussion: A metal storage cabinet within the Met Lab was found to contain glass jars of acetic acid, phosphoric acid, and sulfuric acid, and ammonium hydroxide, as well as cans of acetone and paint thinner. Acids, corrosives, and flammable liquids should be stored in separate metal cabinets, as the accidental interaction of these liquids can intensify a fire.

97-7 **Cardboard Flat Storage Area.** Excess cardboard flats within aisles of the flats storage area should be moved to within the rack structures. Approximately 10 pallet loads of cardboard flats were stored in the rack aisle during this visit.

Discussion: Storage between rack aisles allows fire to propagate quickly, potentially involving additional rack areas. The would result in a normally controllable fire spreading to a greater portion of the building.

97-8 **Roof Drains.** Building roof drains should be inspected periodically, particularly before periods of anticipated heavy rains to ensure that they are unobstructed.

Discussion: Approximately 1-2 inches of standing water was noted over a portion of the roof today. One drain was partially obstructed. Drains should be kept clear so standing water is minimized. Rain water can otherwise enter through cracks in the covering and freeze, creating leaks over a large portion of the roof.

## Other Recommendations - continued

97-9 **Automatic Sprinklers.** Automatic sprinklers below ducts greater than 4 ft. wide in the Rota Plasma shop should be re-arranged so a sprinkler head is positioned below ductwork. Also, wire used to support the branch line should be replaced with a proper hanger, approved for sprinkler piping.

Discussion: A previous attempt was made to re-arrange sprinkler piping in this area, resulting in a sprinkler line laying on its side near the duct at the ceiling. (>4 ft. wide) The branch line should be straightened and extended as necessary to provide coverage below this duct.

AMERICAN RISK CONSULTANTS CORP.

# UNDERWRITING REPORT

Fire & Associated Perils.

**NAME:** SULZER METCO, INC.

**LOCATION:** 1101 Prospect Ave.
Westbury, NY 11590

**DATE:** November 24, 1997

## CONSTRUCTION

This facility is single story height, constructed with an insulated metal deck roof, and brick faced, concrete block walls. Roof flashing has recently been secured in several areas in accordance with the previous insurer's requirements for protection against high winds. Plans in 1998 call for either re-covering or spray coating several roof areas, replacing windows, and installation of new perimeter flashing at the south portion of the office.

## PROCESSES

This facility is primarily engaged in research and development of plasma spray equipment, corporate offices, and product distribution.

Plasma spray testing is done in 24 approximate 12 ft. x 14 ft. rooms containing smaller spray booths. Hydrogen, propylene, propane, nitrogen and argon gas are used for spray application. Not all spray booths are in use at this time, and plans are to reduce the number of booths to fifteen. Plasma spray guns use special wire that is melted from the heat of burning hydrogen or propylene gas, and sprayed onto worn areas of turbine shafts, blades or compressor housings. This spray deposits metal to worn areas in preparation for re-machining components to original design specifications. Protective coatings used for corrosion resistance are also applied with spray equipment developed at this facility.

## SPECIAL HAZARDS

**Metal Spraying Operation:** Metal spraying operations involve the use of flammable cylinder gasses such as hydrogen, propylene, propane and acetylene, and non-flammable gasses such as nitrogen and argon. Nitrogen cylinders are stored outside in a fenced enclosure, and gas is piped in through a manifold system. Hydrogen and other flammable gasses, however, are

## SPECIAL HAZARDS

located within or adjacent to the spray rooms. Manifolds on the building exterior were used in the past for these gasses, but they developed leaks and their use was discontinued. Cylinder gasses were then brought inside the building for use at the spray booths. Although facility management respects the hazard presented by flammable cylinder gasses, their presence inside the building presents a significant exposure to the building, and a serious challenge for fire fighters. In addition to the potential for a ruptured hose or dropped cylinder, a fire originating outside of the plasma spray areas could involve cylinder gasses, resulting in a significantly greater fire challenge.

As many as 12 hydrogen cylinders (195 cu. ft. each) are transported into the building on wheeled carts to supply various spray rooms. Cylinders have high internal pressures, and are regulated through double diaphragm regulators to reduce pressure for spray purposes. Reinforced rubber hoses used for spraying are rated at 250 psi.

**Warehouse:** The warehouse at the west end of the facility is used for double row rack storage of various items relating to the testing and operation of spray guns. Theses include wire, powders and some plastic components. Powders such as titanium dioxide, aluminum, bronze, and nickel, are stored in 4 tiers to 15 ft. high. Racks are 4 ft. deep and 50 ft. long with 8-1/2 ft. aisles. Part of the warehouse area contains shelf storage to 10 ft., containing metal parts in cardboard bin-boxes. Commodities range from Class 2 to Class 4. Automatic sprinklers rated at 212° F, and spaced at 100 sq. ft. are provided throughout the warehouse.

**Flammable Liquids:** A 20 ft. x 30 ft. cut-off flammable liquids storage vault is located in the Addition. Approximately four pallet loads of paints in 1 qt. metal containers are stored in this room, along with machine oils (Class IIIB liquids) in 55 gallon drums. Electrical equipment is rated for Class 1 Division 2 occupancy, and adequate ventilation is provided. Automatic sprinklers are provided in this vault. A curb was recently provided at the doorway to contain spillage.

**Dust Collectors:** Four dust collectors are located outdoors at the west end of the warehouse. The dust collectors are provided with explosion venting. Three additional collectors are to be provided when operations from the Duffy St. facility move to this site in 1998.

## COMMON HAZARDS

**Boilers:** Currently, the plant uses two gas fired, Kewanee, 15 psi, fire tube boilers for building heat. Each can produce approximately 5,465,000 BTU output. The boilers were built in 1957 and 1964, and were last inspected in September, 1997. Plans are to remove these two boilers from service in 1998 and install roof mounted gas fired units. Smoke detection is provided in the boiler room.

**Electricity:** Electricity is purchased from the City of Westbury and enters the plant to a well arranged, cut-off room. The room is normally locked and contains no combustibles. Smoke detection is recommended for this area.

## COMMON HAZARDS

**Computer Room:** An approximate 30 ft. x 46 ft. computer room, constructed with gypsum board walls, is located along the inside east wall of the Main Building. The room contains a mainframe, several processing units, and other peripheral equipment. A 12 in. high, non-combustible raised floor is provided in this room. Operations include accounting, payroll and inventory control. No plant equipment is computer controlled.

Fire protection in the computer room and below the raised floor is provided by a Firetek 210 automatic Halon system, supplied by two cylinders, one 250 lb. and one 316 lb., located just outside the room. Halon discharge is actuated by cross-zoned smoke detectors. A recommendation was made to repair the computer room exit door to ensure that the concentration of Halon can be maintained in the event of fire. (97-3)

An Emerson Accupower, uninterruptible power supply (UPS) is provided to maintain computer power, in the event of loss of utility power.

Computer tapes are backed-up daily and moved off-site weekly.

## PRIVATE PROTECTION

**Automatic Sprinklers:** Automatic sprinklers are provided within most areas of the facility, but do not extend to office areas or into the individual plasma spray rooms. The office area contains typical combustible loading. Provision of sprinklers for the office area is desirable, but the cost to retrofit sprinklers in this approximate 22,000 sq. ft. area is considered prohibitive at this time.

**Water Supplies:** Water supplies are fed through two 8 in. connections to the 12 in. public main on Prospect Ave. The public system is a direct pumping supply, with overflow to a one million gallon tank. A static pressure of 64 psi is maintained on the system. Fire department pumper connections are provided at each lead-in to the plant.

**Fire Hydrants and Water Mains:** A fire hydrant is located in front of the plant on Prospect Ave., and an additional hydrant is located at the corner of Bridge Street, just east of the facility.

**Alarm Systems:** Waterflow alarms and valve tamper switches are supervised by ADT. These are tested every two months.

**Watchmen Service:** None provided.

**Portable Fire Equipment:** Portable fire extinguishers are provided throughout the facility. All extinguishers are tagged, inspected quarterly, and re-charged annually.

**Plant Emergency Organization:** Plant personnel are trained in the use of portable fire extinguishers and incipient fire response only. Mr. David Walzak is in charge of the basic organization. Evacuation of most employees is expected in the event of fire.

## PRIVATE PROTECTION

**Self Inspections:** Mr. David Walzak conducts a weekly sprinkler valve inspection, in addition to making checks of fire doors, and tracking fire system impairments. All sprinkler control valves are locked open.

## PUBLIC PROTECTION

This facility is located within several minutes of the Hicksville Fire Department.

## EXPOSURES

Fire exposures are slight in all directions.

## OTHER PERILS

There are no unusual loss exposures with regard to collapse, smoke or sprinkler leakage.

## BUSINESS INTERRUPTION FEATURES

This facility is engaged in development and testing of plasma spray guns manufactured at another facility owned by the insured. Some spray powders stored in the warehouse have lead times of up to 12 weeks, and may cause a slowdown in delivery to customers if lost in a fire.

## BUSINESS INTERRUPTION INTERDEPENDENCY

There is no major interdependency between operations at this facility and other plants owned by Sulzer, Inc. Another facility in Hicksville produces the spray guns tested at this facility.

# LOSS ESTIMATES

**ANTICIPATED PROBABLE LOSS:**

P.D. - $ 300,000 B.I. - $ 50,000 Total - $350,000

The APL estimate is based on fire originating in a storage area such as the cardboard flats, where a greater than normal fire development may be expected due to housekeeping issues. The fire is not expected to threaten the facility, and will cause minor disruption to production for a brief period.

**PROBABLE MAXIMUM LOSS:**

P.D. - $500,000 B.I. - $100,000 Total - $600,000

The PML estimate is based on a fire originating in the unsprinklered office area (22,000 sq. ft.) during an unattended period. Although plant production areas will not be threatened, smoke and water damage to office equipment and furnishings will result in a substantial loss in this area. It is expected that the public fire department will respond and be able to control a fire of this nature.

**MAXIMUM FORSEEABLE LOSS:**

P.D. - $75,000,000 B.I. - $ 10,000,000 Total - $85,000,000

The MFL estimate is based on a fire originating in the warehouse with automatic sprinklers in the plant wholly, or partially impaired. Fire could occur during non-working hours and be caused by an electrical malfunction or other ignition source. As this scenario anticipates a fire protection impairment, alarm transmittal will be delayed. It is expected that fire will be well underway before public fire fighters arrive. The sprayed-on roof insulation above the steel deck will become involved and contribute to fire growth, involving other plant areas. Gas cylinders are expected to rupture and cause a threat to manual fire fighting. The worst case result is approximately 80 % of the plant damaged severely by fire.

The BI loss is expected to result in 3 months downtime for development operations until similar operations can be set up at another facility. Rebuilding time for this facility is estimated at 10-12 months.

**SENECA**

INSURANCE COMPANY, INC.

**dba**

**ARISE Incorporated**

# CERTIFICATE OF BOILER OR PRESSURE VESSEL INSPECTION

Boiler or Vessel No. 1 State or Standard No. G6873

This is to certify that the herein-described boiler/pressure vessel inspected by

SENECA Insurance Company dba ARISE Incorporated

on: December 11, 1997

may be operated at a pressure not to exceed 15 pounds per square inch.

| | | | | | |
|---|---|---|---|---|---|
| **Name of User** | Sulzer Metco Inc. | | | | |
| **Address** | 1101 Prospect Avenue, Westbury, New York 11590 | | | | |
| **Location** | Boiler Room | | | | |
| **Type** | Firetube boiler | **Manufacturer** | Kewanee | **Date Mfg.** | 1957 |

**CERTIFICATE EXPIRES One YEAR(S) FROM DATE OF LAST INSPECTION OR UPON THE CANCELLATION OF THE COMPANY'S INSURANCE COVERAGE ON THE BOILER, WHICHEVER OCCURS FIRST.**

**INSPECTIONS**

| KIND | DATE | INSPECTOR |
|---|---|---|
| External Certificate | 12/11/97 | Joseph T. Magee |
| | | |
| | | |
| | | |

This document should be posted under glass in a conspicuous place, accessible to concerned individuals and located in the boiler room.

Corporate Plaza II, Suite 110, 6480 Rockside Woods Blvd.,South, Cleveland, Ohio 44131-2206
Phone (216) 447-4264 Fax (216) 642-4381

SENECA

INSURANCE COMPANY, INC.

dba

**ARISE Incorporated**

# CERTIFICATE OF BOILER OR PRESSURE VESSEL INSPECTION

Boiler or Vessel No. 2 State or Standard No. SM 321

This is to certify that the herein-described boiler/pressure vessel inspected by

SENECA Insurance Company dba ARISE Incorporated

on: December 11, 1997

may be operated at a pressure not to exceed 15 pounds per square inch.

| | | | | | |
|---|---|---|---|---|---|
| **Name of User** | Sulzer Metco Inc. | | | | |
| **Address** | 1101 Prospect Avenue, Westbury, New York 11590 | | | | |
| **Location** | Boiler Room | | | | |
| **Type** | Firetube boiler | **Manufacturer** | Kewanee | **Date Mfg.** | 1964 |

**CERTIFICATE EXPIRES One YEAR(S) FROM DATE OF LAST INSPECTION OR UPON THE CANCELLATION OF THE COMPANY'S INSURANCE COVERAGE ON THE BOILER, WHICHEVER OCCURS FIRST.**

**INSPECTIONS**

| KIND | DATE | INSPECTOR |
|---|---|---|
| External Certificate | 12/11/97 | Joseph T. Magee |
| | | |
| | | |
| | | |

This document should be posted under glass in a conspicuous place, accessible to concerned individuals and located in the boiler room.

Corporate Plaza II, Suite 110, 6480 Rockside Woods Blvd.,South, Cleveland, Ohio 44131-2206
Phone (216) 447-4264 Fax (216) 642-4381

Field Investigation
Article XI Facility
Nassau County Department of Health

☐ Tank Test ☐ Retest
☑ Tank Removal ☐ Compliant
☐ Installation

Date of Job 12/16 Time ____
Date Received 12/17 Time 2:49
Contractor RICE
Telephone # ____

Facility ID# 34042
Spill No. 350187 P08

Establishment Name METCO
Address 1101 PROSPECT AVE.
Town WESTBURY Telephone # ____
Cross Street: ____
No. of Tanks 3 Type of Test ____

| Tank # | | | | | | | |
|---|---|---|---|---|---|---|---|
| System Test | | | | | | | |
| Tank Test | | | | | | | |
| Size | ~~20K~~ | ~~20K~~ | ~~6K~~ | | | | |
| Product | | | | | | | |
| Leak Rate | | | | | | | |
| Pass/Fail | | | | | | | |
| Fee | | | | | | | |
| Fee Paid | | | | | | | |
| Retest Needed | | | | | | | |

| Tank Removal | Rear of Bldg | Rear of Bldg | | Front of Bldg. | | | |
|---|---|---|---|---|---|---|---|
| Tank # | #1 | — | | #2 | | | |
| Visible Hole | NONE | NONE | | NONE | | | |
| # Holes | — | — | | — | | | |
| Size | 20,000 | 1,000 | | 20,000 | | | |
| Location | — | — | | — | | | |
| Photo | NO | NO | | NO | | | |

Excavation: ☒ Clean ☐ Contanimated Soil ☐ Free floating oil

Soil Removed (Y/N) Amount

Installation: Tank size ____ Approved plans ☐ Yes ☐ No

Notes: 12/16 11:00 - NO ONE ON SITE, Removal NOT STARTED YET. (12/16/87) PR
12/17/87 - 8" Sewer line broken during removal of 20,000 gal tank in Rear of Bldg. Tank Cut & Cleared by Rice.
12/21/87 - 20,000 removed, Cut & Cleared by Rice. PR

Inspector R. Rhode Supervisor ____

Employee Number 178 Date 12/16/87 ☐ Continued on Reverse Side

(#2) 20,000 + 1,000 gal tanks Cut, Clean & Transported off site on 12/22/87. PR

#4564H

Field Investigation
Article XI Facility
Nassau County Department of Health

☐ Tank Test ☐ Retest
☒ Tank Removal ☐ Compliant
☐ Installation

Date of Job 2/2/88 Time _____ Facility ID# ~~00326~~ 54043
Date Received 1/28/88 Time _____ Spill No. _____
Contractor Rice Tank
Telephone # _____

033 H88 R12

Establishment Name Met Co
Address Duffy Ave (325)
Town Hicksville Telephone # _____
Cross Street: _____
No. of Tanks 1 Type of Test _____

| Tank # | | | | | | | |
|---|---|---|---|---|---|---|---|
| System Test | | | | | | | |
| Tank Test | | | | | | | |
| Size | | | | | | | |
| Product | | | | | | | |
| Leak Rate | | | | | | | |
| Pass/Fail | | | | | | | |
| Fee | | | | | | | |
| Fee Paid | | | | | | | |
| Retest Needed | | | | | | | |

Tank Removal

| Tank # | 1 | 2 | | | | | |
|---|---|---|---|---|---|---|---|
| Visible Hole | | NO | | | | | |
| # Holes | | None | | | | | |
| Size | 10,000 | 20000 | | | | | |
| Location | | | | | | | |
| Photo | | | | | | | |

Excavation: ☒ Clean ☐ Contanimated Soil ☐ Free floating oil

Soil Removed (Y/N) Amount

Installation: Tank size _____ Approved plans ☐ Yes ☐ No

Notes: TANK #1 ABANDONED IN PLACE - TOP CUT - TANK CLEANED AND FILLED WITH SAND. - SITE WELL (ONE) TO BE INSTALLED SOUTH OF TANK. 2/10/88 - INSPECTED SITE - NO SITE WELLS IN AS YET.

Inspector _____ Supervisor _____

Employee Number _____ Date _____ ☐ Continued on Reverse Side

[illegible] Teicher

ENVIRONMENTAL HEALTH
Continuation Sheet
Nassau County Health Department

Owner of Agent : Metco
Address: 325 Duffy ave. Hicksville

| DATE | COMMENTS |
|---|---|
| 2/17/88 | Mr Orlasky & I met with Frank F Buscher Jr. and John Murphy* at their location. We gave them a copy of article XI regulations and discussed site well installation. They have contracted Marine Pollution. The well will be located 10'-15' due south of edge of tank: [illegible] |
| | * JWP Energy Systems Inc. |
| 2/26/88 | SITE INSPECTION REVEALED SITE WELLS NOT INSTALLE AS YET. Morlasky |
| 7/15/88 | SPOKE TO MARINE POLLUTION CONTROL - JOHN EMINGTON - SITE WELL INSTALLED IN MAY 88 - They ARE MONITORING IT. - Morlasky |

EH 109a 1/68
DH-1198, 9/71

Field Investigation
Article XI Facility
Nassau County Department of Health

☐ Tank Test ☐ Retest
☒ Tank Removal ☐ [illegible]
☐ Installation

Date of Job 7/17/87 Time AM
Date Received 7/16/87 Time
Contractor RICE TANK CLEANERS
Telephone # 582-4888

Facility ID# 54041
Spill No. 874323

Establishment Name METCO. (Facility Super. MR. Teicher)
Address 720 MILLER PLACE
Town Hicksville Telephone # 334-1300
Cross Street:
No. of Tanks 3 Type of Test

| Tank # | | | | | | |
|---|---|---|---|---|---|---|
| System Test | | | | | | |
| Tank Test | | | | | | |
| Size | | | | | | |
| Product | | | | | | |
| Leak Rate | | | | | | |
| Pass/Fail | | | | | | |
| Fee | | | | | | |
| Fee Paid | | | | | | |
| Retest Needed | | | | | | |

| Tank Removal | 1 | | 2 | | | |
|---|---|---|---|---|---|---|
| Tank # | 10,000 gal | | 5,000 | | 3,000 | |
| Visible Hole | NO | | NO | | NO | |
| # Holes | — | | — | | — | |
| Size | 10,000 | | 5,000 gal | | 3,000 gal | |
| Location | [illegible] | | | | | |
| Photo | YES | | NO | | NO | |

Excavation: ☐ Clean ☐ Contaminated Soil ☐ Free floating oil

Soil Removed (Y/N) Amount

Installation: Tank size _____ Approved plans ☐ Yes ☐ No

Notes: 7/17 10,000 gal. tank was removed, some contaminated soil was present. Soil was removed and placed in buckets until a bobcat could be obtained. (approx 3½ buckets were filled) ??
7/21 - 5,000 & 3,000 gal. tanks were removed, cut & cleaned. There were —

Inspector [illegible] Supervisor

[illegible] Date 7/17/87 ☐ Continued on Reference Site

[illegible]

[illegible]

7/21 (continued) no usable holes in the tanks ~~and~~ and no contaminated soil in the hole. RR. Facility has converted to gas so there will be no tank installations at this site RR.

INITIAL REPORT OF PETROLEUM SPILL
Nassau County Department of Health

☒ Add ☐ Change ☐ Delete ☐ Key Change

I.D. No. 87U323

Date of Spill 7/17/87

Time of Spill PM

Reinspection Date

Estab. Name METCO. (MR. Teicher Facility Supv)

Tel. No. Area 334 No. -1300 Ext.

Estab. Address 220 MILLER PLACE

Complainant Name

Compl. Tel.

Complainant Address

Type of Spill
☐ Surface - Land
☐ Surface - Water
☒ Underground

Source of Report
☐ NCDH ☐ Fire Marshal ☐ Contractor
☐ DEC ☐ DPW ☐ USCG
☐ DOT ☒ Spiller ☐ Complaint

Type of Product #2 Fuel Oil

Est. Amount of Spill 1-2 gal.

Report Received By:

Date

Time

DEC No.

Date Open DEC

SPDES ☐ No ☐ Yes If yes, number

| Spiller | Owner/Representive |
|---|---|
| Name METCO. | Name |
| Address 220 Miller pl. | Address |
| Village Hicksville Zip | Village Zip |
| Telephone 334-1300 | Telephone |

| Emergency Contact | Contractor WARREN ULMET MFG. |
|---|---|
| Name Title | Name RICE TANK CLEANING |
| Address | Address 147 RECONIC AVE |
| Village Zip | Village MEDFORD NY Zip |
| Telephone | Telephone 475-5663 |

Product Information

| | Product | Code | % of Spill | Tank Type | Tank Size | Year Installed |
|---|---|---|---|---|---|---|
| 1 | #2 Fuel | B | | 1 | 10,000 gal | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |

Scavenger Name

Scavenger DEC No.

Brand of Product

Waste Tank Size

Number of Recovery Wells

Number of Other Wells

Recovery Type ☐ Drawdown ☐ Thieving ☐ Excavation ☐ Other

Census Tract | Section | Block | Lot(s)

Coordinates N E | Nearest Intersection

Referred to: ☐ DEC ☐ Fire Marshal ☐ Other (Specify)

Further Action Required ☐ DEC ☐ Legal ☐ Follow-up

Reason Closed DEC ☐ Retested ☒ Excavation ☐ No Visible Product ☐ Other (Specify) | Date 7/17/87

Reason Closed NCDH ☐ Retested ☐ Excavation ☐ No Visible Product ☐ Other (Specify) | Date

Signature of Investigator Robert Rhode | Emp. No. 178 | Date of Investigation 7/17/87 | Checked By:

EH 749 11/85

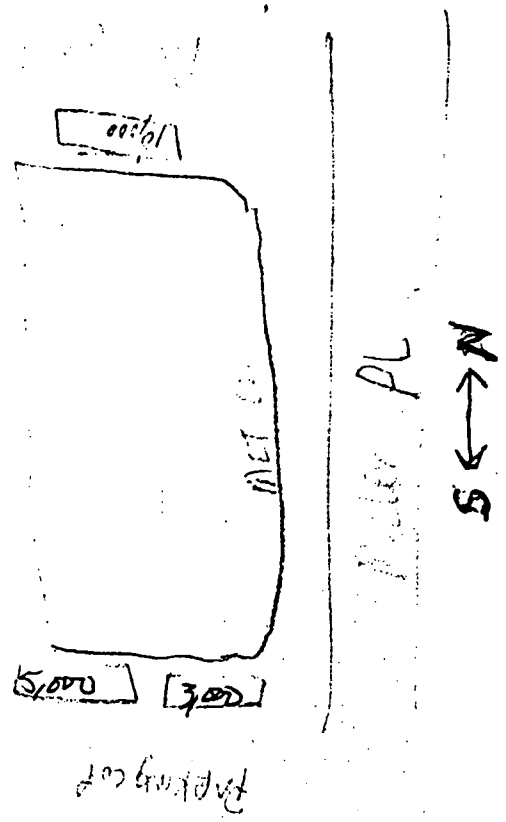
| Date | REMARKS |
|---|---|
| 7/17/81 | Less than 1 cubic yard of contaminated soil was removed from the hole which contained the 10,000 gal tank. The soil is to be disposed of by Rize tank cleaning Corp. PR. |

**PRODUCT CODES**

| | |
|---|---|
| A Hydraulic | H Transmission Fluid |
| B Fuel Oil 2 | I Transformer Oil |
| C Fuel Oil 4 | J Gas, Leaded |
| D Fuel Oil 6 | K Gas, No Lead |
| E Diesel | L Gas, Premium No Lead |
| F Kerosene | M Misc. |
| G Motor Oil | |

**TANK CODES**

| | |
|---|---|
| 1 Steel | 4 Double Wall |
| 2 Fiberglass | 5 Truck |
| 3 Fiberglass Coated Steel | 6 Other |


5,000
3,000
PL
N
S

# MATERIAL SAFETY DATA SHEET

**PRODUCT NAME:** CHROME S.G W/R LACQ **HMIS CODES:** H F R P
**PRODUCT CODE:** 74-32770 2 2 0 J

## SECTION I - MANUFACTURER IDENTIFICATION

**MANUFACTURER'S NAME:** HARTIN PAINT & FILLER CO.
**ADDRESS:** 225 BROAD STREET. CARLSTADT NEW JERSEY 07072
**EMERGENCY PHONE:** 201-438-3300 **INFORMATION PHONE:** SAME
**DATE REVISED :** 09-20-89 **NAME OF PREPARER :**

## SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

| HAZARDOUS COMPONENTS | CAS NUMBER | OCCUPATIONAL EXPOSURE LIMITS OSHA PEL | ACGIH TWA | TLV STEL | VAPOR PRESSURE mm Hg @ TEMP | WEIGHT PERCENT |
|---|---|---|---|---|---|---|
| *GLYCOL ETHER | 111-76-2 | 50 | 25 | (75) | 1.0 68F | 9 |
| ALUMINIUM PASTE | 7429-90-5 | 15MG/M3 | 10 MG.M3 | 10 MG/M3 | N/A | ( 5.0% |
| *ALCOHOL | 67-63-0 | 400 | 400 | 500 | 33.0 68F | 2 |

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.
MAY ALSO CONTAIN THE FOLLOWING PRODUCTS: TITANIUM DIOXIDE [ CAS # 13463-67-7 ] CARBON BLACK [CAS # 1333-86-4]
MAGNESIUM SILICATE [ CAS #14807-96-6]

## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

**BOILING RANGE:** 181 to 360 Deg F **SPECIFIC GRAVITY (H2O=1):** 1.0
**VAPOR DENSITY:** LIGHTER THAN AIR **EVAPORATION RATE:** SLOWER THAN ETHER
**COATING V.O.C. :** 2.16 LB/GL ( 259 G/L)
**SOLUBILITY IN WATER:**
**APPEARANCE AND ODOR:**

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

**FLASH POINT:** 53 Deg F **METHOD USED:** TCC
**FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER:** 0.9% **UPPER:** 12.8%

**EXTINGUISHING MEDIA:** FOAM. ALCOHOL FOAM. CO2. DRY CHEMICAL. WATER FOG

**SPECIAL FIREFIGHTING PROCEDURES**
MATERIALS BURNS RAPIDLY WITH INTENSE HEAT. USE SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**
AVOID UNNECESSARY EXPOSURE TO HEAT. VAPORS MAY TRAVEL TO SOURCE OF IGNITION AND FLASH BACK.

## SECTION V - REACTIVITY DATA

**STABILITY: STABLE**

**CONDITIONS TO AVOID**
HIGH HEAT. SPARKS. OPEN FLAME

**INCOMPATIBILITY (MATERIALS TO AVOID)**
ALKALINE METALS. STRONG ACIDS. OXIDIZING AGENTS

**HAZARDOUS DECOMPOSITION OR BYPRODUCTS**
OXIDES OF NITROGEN-CARBON DIOXIDE/MONOXIDE

**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

## SECTION VI - HEALTH HAZARD DATA

**INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**
VAPORS MAY BE IRRITATING AND CAUSE DIZZINESS. HEADACHE. NAUSEA. VOMITTING AND NARCOSIS

**SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE**
BREIF CONTACT WITH SKIN SHOULD NOT PRODUCE ANY HARMFUL EFFECTS. BUT PROLONGED CONTACT. AS FROM CLOTHING WET WITH CHEMICAL. MAY CAUSE IRRITATION. EYE CONTACT CAUSES SEVERE IRRITATION.

**SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**
NONE CURRENTLY KNOWN.

**INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**
MAY CAUSE TOXICOLOGICAL AND NEUROLOGICAL EFFECTS.

**HEALTH HAZARDS (ACUTE AND CHRONIC)**
ACUTE INGESTION CAN CAUSE HEADACHE. DROWSINESS AND UNCONSCIOUSNESS. ACUTE INHALATION OF VAPORS ARE IRRITATING TO NASAL PASSAGES AND THROAT. ACUTE REPEATED OR PROLONGED SKIN CONTACT CAN CAUSE DRYING OF THE SKIN. AND ACUTE VAPOR OR LIQUID EYE CONTACT MAY BE INHALED TO THE EYES.

**CARCINOGENICITY:** NTP? NO IARC MONOGRAPHS? NO OSHA REGULATED? NO

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**
EMPHYSEMA. ASTHMA. DERMATITIS.

**EMERGENCY AND FIRST AID PROCEDURES**
IF SWALLOWED CALL A PHYSICIAN SKIN - FLUSH WITH WATER. IF INHALED REMOCE TO FRESH AIR AND CALL A PHYSICIAN. GIVE ARTIFICIAL RESPIRATION IF BREATHINMG IS DIFFICULT. EYES - FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. TREATMEN TSHOULD BE DIRECTED AT THE CONTROL OF SYMPTOMS AND THE CLINICAL CONDITION. THERE IS NO SPECIFIC ANTIDOTE

## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
WEAR SUITABLE PROTECTIVE EQUIPMENT. SPILLS SHOULD BE COLLECTED FOR DISPOSAL BY APPROPRIATE METHODS.

### WASTE DISPOSAL METHOD
DISPOSE OF WASTE BY APPROPRIATE METHODS OR INCENERATE IN A FURNACE WHERE PERMITTED UNDER APPROPRIATE FEDERAL, STATE, AND LOCAL REGULATIONS.

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
STORE LARGE QUANITIES ONLY IN BUILDINGS DESIGNED TO COMMPLY WITH OSHA 1910.106. STORE IN COOL AREA.

### OTHER PRECAUTIONS
KEEP CLOSURE TIGHT AND CONTAINER UPRIGHT TO PREVENT LEAKAGE . DO NOT STORE OR USE HEAT, SPARKS OR OPEN FLAME. STORE DRUM OUT OF SUN AND AWAY FROM HEAT. STORE AND USE ONLY IN WELL-VENTILATED AREAS. DRUMS OF THIS MATERIAL SHOULD BE GROUNDED WHEN POURING. NEVER USE PRESSURE TO EMPTY. DRUM IS NOT A PRESSURE VESSESL. DO NOT PUNCTURE CONTAINER OR LEAVE OPENED OR UNCOVERED. DRUMS SHOULD NOT BE WASHED OUT OR USED FOR OTHER PURPOSES. DO NOT GET IN EYES. AVOID SKIN CONTACT. HARMFUL IF INHALED. PREVENT PROLONGED OR REPEATED BREATHING OR VAPOR OR MIST. READ INSTRUCTIONS BEFORE USING

## SECTION VIII - CONTROL MEASURES

### RESPIRATORY PROTECTION
IN OPEN AREAS: USE APPROVED MECHANICAL FILTER RESPIRATORS TO REMOVE SOLID AIR-BORNE PARTICLES. IN RESTRICTED VENTILATION AREAS: USE OSHA APPROVED CHEMICAL/MECHANICAL FILTER RESPIRATORS DESIGNED TO REMOVE A COMBINATION OF PARTICLES AND VAPOR. IF LOCAL EXHAUST IS NOT SUFFICIENT TO KEEP LEL BELOW STATED IN SECTION III.

### VENTILATION
ALL APPLICATION AREAS SHOULD BE VENTILATED IN ACCORDANCE WITH OSHA REGULATION 29CFR.1910 TO KEEP AIR CONTAMINANT CONCENTRATION LEVELS BELOW APPLICATION OSHA PERMISSABLE EXPOSURE LIMIT OR ACGIH'S TLV LIMIT.

### PROTECTIVE GLOVES
REQUIRED FOR PROLONGED OR REPEATED CONTACT

### EYE PROTECTION
USE SAFETY EYEWEAR WITH SPLASH GUARDS OR SIDE SHEILDS.

### OTHER PROTECTIVE CLOTHING OR EQUIPMENT
EYE BATH, SAFETY SHOWER, APRONS

### WORK/HYGIENIC PRACTICES
WEAR PROTECTIVE CLOTHING WHEN NECESSARY. WASH THOROUGHLY BEFORE HANDLING FOOD PRODUCTS.

## SECTION IX - DISCLAIMER

### DISCLAIMER
WHILE HARTIN PAINT AND FILLER CORP. BELEIVES THAT THE DATA CONTAINED HEREIN ARE FACTUAL AND THE OPINIONS EXPRESSED ARE THOSE OF QUALIFIED EXPERTS REGARDING THE RESULTS OF THE TESTS CONDUCTED. THE DATA ARE NOT TO BE TAKEN AS A WARRANTY OR REPRESENTATION FOR WHICH THE HARTIN ASSUMES LEGAL RESPONSIBILITY. IT IS THE USERS RESPONSIBILITY FOR SAFE USE.

# EPA FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

United States Environmental Protection Agency

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| **Toxic Chemical, Category, or Generic Name** |
| NICKEL POWDER |

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

For EPA use only

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 92

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?

[ ] Yes (Answer question 2.2; Attach substantiation forms)

[X] No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy:

[ ] Sanitized [X] Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official

JOE MACRI, MANAGER FACILITIES

Signature: Joseph Macri

Date Signed: June 30, 1993

**SECTION 4. FACILITY IDENTIFICATION**

4.1

Facility or Establishment Name: METCO DIVISION PERKIN-ELMER CORPORATION

TRI Facility ID Number: 11801PRKNL220MI

Street Address: 220 Miller Place

City: Hicksville

County: Nassau

State: New York

Zip Code: 11801

Mailing Address (if different from street address):

City:

State: Zip Code:

PUT LABEL HERE

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# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| NICKEL POWDER |

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | | | b. [X] Part of a facility | | |
| 4.3 | Technical Contact | Name: JOE MACRI | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.4 | Public Contact | Name: JOE MACRI | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.5 | SIC Code (4-digit) | a. 3399 | b. | c. | d. | e. | f. |
| 4.6 | Latitude and Longitude | Latitude: Degrees | Minutes | Seconds | Longitude: Degrees | Minutes | Seconds |
| | | 086 | 13 | 00 | 003 | 47 | 00 |
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a. 05-773-1663 | | | | | |
| | | b. | | | | | |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a. NYD981558570 | | | | | |
| | | b. | | | | | |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a. N/A | | | | | |
| | | b. | | | | | |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a. N/A | | | | | |
| | | b. | | | | | |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company | |
| | ☐ NA | PERKIN-ELMER CORPORATION |
| 5.2 | Parent Company's Dun & Bradstreet Number | |
| | ☐ NA (9 digits) | 00-118-4480 |

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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| NICKEL POWDER |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7440-02-0 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | NICKEL |
| 1.3 | Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.) |
| | N/A |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers,letters, spaces, and punctuation.) |
| | N/A |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | |
|---|---|---|---|
| 3.1 | Manufacture the toxic chemical: | a. ☐ Produce<br>b. ☐ Import | If produce or import:<br>c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | Process the toxic chemical: | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. ☒ As an article component<br>d. ☒ Repackaging |
| 3.3 | Otherwise use the toxic chemical: | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☐ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 | (Enter two-digit code from instruction package.) |

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| **Toxic Chemical, Category, or Generic Name** |
| NICKEL POWDER |

## SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | [X] NA | | | |
| 5.2 | Stack or point air emissions | [ ] NA | 2600 | C | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name: N/A | | | | |
| 5.3.2 | Stream or Water Body Name: N/A | | | | |
| 5.3.3 | Stream or Water Body Name: N/A | | | | |
| 5.4 | Underground injections on-site | [X] NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | [X] NA | | | |
| 5.5.2 | Land treatment/ application farming | [X] NA | | | |
| 5.5.3 | Surface impoundment | [X] NA | | | |
| 5.5.4 | Other disposal | [X] NA | | | |

[ ] Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = 1
C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Toxic Chemical, Category, or Generic Name |
| NICKEL POWDER |

### SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|
| 5.3.__ | Stream or Water Body Name | | | |
| | N/A | | | |
| 5.3.__ | Stream or Water Body Name | | | |
| | N/A | | | |
| 5.3.__ | Stream or Water Body Name | | | |
| | N/A | | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

#### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| N/A | |

**6.1.B POTW Name and Location Information**

| 6.1.B.__ POTW Name | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Sections 5.3/6.1 page this is, here. [ ]
(example: 1, 2, 3, etc.)



Range Codes: A = 1 - 10 pounds; B = 11 C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11801PRKNL220MI

Toxic Chemical, Category, or Generic Name: NICKEL POWDER

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: I. GANZ METAL, INC.

Street Address: 96 WHYTHE AVENUE

City: BROOKLYN | County: KINGS

State: NY | Zip Code: 11211 | Is location under control of reporting facility or parent company? ☐ Yes ☒ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. C | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: LONI-JO SCRAP METAL

Street Address: 70 KINKEL STREET

City: WESTBURY | County: NASSAU

State: NY | Zip Code: 11590 | Is location under control of reporting facility or parent company? ☐ Yes ☒ No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. 11,500 | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box ☐ and indicate which Part II, Section 6.2 page this is, here. ☐ (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 1
C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| **Toxic Chemical, Category, or Generic Name** |
| NICKEL POWDER |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] **Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.**

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes [ ] No [ ] |
| 7A.2a | 7A.2b: 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes [ ] No [ ] |
| 7A.3a | 7A.3b: 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes [ ] No [ ] |
| 7A.4a | 7A.4b: 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes [ ] No [ ] |
| 7A.5a | 7A.5b: 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6 [ ] 7 [ ] 8 [ ] | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes [ ] No [ ] |

**If additional copies of page 7 are attached, indicate the total number of pages in this box [ ] and indicate which page 7 this is, here. [ ] (example: 1, 2, 3, etc.)**

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11801PRKNL220MI

Toxic Chemical, Category, or Generic Name: NICKEL POWDER

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.**

Energy Recovery Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ]

## SECTION 7C. ON-SITE RECYCLING PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.**

Recycling Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 [ ]

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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11801PRKNL220MI |
| Chemical Category, or Generic Name |
| NICKEL POWDER |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | *All quantity estimates can be reported using up to two significant figures.* | Column A 1991 (pounds/year) | Column B 1992 (pounds/year) | Column C 1993 (pounds/year) | Column D 1994 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released* | 0 | 0 | 0 | 0 |
| 8.2 | Quantity used for energy recovery on-site | 0 | 0 | 0 | 0 |
| 8.3 | Quantity used for energy recovery off-site | 0 | 0 | 0 | 0 |
| 8.4 | Quantity recycled on-site | 0 | 0 | 0 | 0 |
| 8.5 | Quantity recycled off-site | 12,000 | 12,000 | 12,000 | 12,000 |
| 8.6 | Quantity treated on-site | 0 | 0 | 0 | 0 |
| 8.7 | Quantity treated off-site | 0 | 0 | 0 | 0 |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | N/A | | | |
| 8.9 | Production ratio or activity index | .95 | | | |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | W19 | a. T04 | b. | c. |
| 8.10.2 | W29 | a. T04 | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | YES | NO |
|---|---|---|---|
| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | ☐ | ☒ X |

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

UNION CARBIDE

# MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: November 1, 1983

Union Carbide Corporation urges the customer receiving this Material Safety Data Sheet to study it carefully to become aware of hazards, if any, of the product involved. In the interest of safety you should (1) notify your employees, agents, and contractors of the information on this sheet, (2) furnish a copy to each of your customers for the product, and (3) request your customers to inform their employees and customers as well.

PRODUCT NAME: UCAR® LATEX 879

CHEMICAL NAME:

CHEMICAL FAMILY: Styrene Acrylic Latex

| | | |
|---|---|---|
| DEPARTMENT OF TRANSPORTATION | Hazard Classification | None |
| | Shipping Name | None |

CAS # CAS NAME Not Available (mixture)

| | | | |
|---|---|---|---|
| BOILING POINT, 760 mm Hg | ~100°C (212°F) | FREEZING POINT | ~0°C |
| SPECIFIC GRAVITY ($H_2O$ = 1) | ~1.07 | VAPOR PRESSURE at 20°C. | ~17.5mm Hg |
| VAPOR DENSITY (air = 1) | <1 (Water) | SOLUBILITY IN WATER, % by wt. | Dilutable |
| PERCENT VOLATILES BY VOLUME | ~54 wt.% (Water) | EVAPORATION RATE (Butyl Acetate = 1) | ~1 |
| APPEARANCE AND ODOR | White, milky fluid; mild odor. | | |

| MATERIAL | % | TLV | HAZARD |
|---|---|---|---|
| See Page 4 | | | |

| | | | | |
|---|---|---|---|---|
| FLASH POINT [TEST METHOD(S)] | Closed Cup Not Determined (Aqueous System)<br>None Open Cup | | | |
| FLAMMABLE LIMITS IN AIR, % by volume | LOWER | Not Determined (Aqueous System) | UPPER | Not Determined (Aqueous System) |
| EXTINGUISHING MEDIA | The latex will not burn until water has evaporated. For residual solids: use water spray, carbon dioxide, dry chemical, alcohol-type or universal-type foams applied by manufacturers recommended techniques. | | | |
| SPECIAL FIRE FIGHTING PROCEDURES | None | | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | None | | | |

[redacted] holidays.

[redacted]

See Section III. Values from ACGIH, 1982, Notice of Intended Changes; OSHA CFR 29, para, 1910.1045, exemption (a) 2 (ii) and para. 1910.1000, Table Z-2

[redacted]

| | |
|---|---|
| SWALLOWING | None currently known. May cause some nausea. |
| SKIN ABSORPTION | None currently known. |
| INHALATION | None currently known. |
| SKIN CONTACT | May cause transient reddening of skin. |
| EYE CONTACT | None currently known. |

[redacted]

None currently known.

[redacted]

None currently known.

[redacted]

This latex may contain small amounts (about 0.3%) of free formaldehyde, which has been shown to cause cancer in laboratory animals but for which there is no evidence that it may cause cancer in humans. There should be minimal risk when used with ventilation adequate to keep the atmospheric concentration of formaldehyde below the recommended exposure limit of 1 ppm.

[redacted]

| | |
|---|---|
| SWALLOWING | No harmful effects expected. |
| SKIN | Wash with soap and water. |
| INHALATION | No emergency care anticipated. |
| EYES | Flush with water. |

**NOTES TO PHYSICIAN**
Toxicology studies have shown similar material to be of very low acute toxicity. There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.
ADDITIONAL COMMENTS: 1) Contains a maximum of 10 ppm acrylonitrile, classified by OSHA as a human carcinogen. Avoid breathing vapors in the top of the shipping container.

| STABILITY | | | |
|---|---|---|---|
| UNSTABLE | STABLE | CONDITIONS TO AVOID | None |
| | X | | |

| | |
|---|---|
| INCOMPATIBILITY (materials to avoid) | None |
| HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS | When water evaporates, polymer can burn and produce carbon monoxide, carbon dioxide and oxides of nitrogen. |

| HAZARDOUS POLYMERIZATION | | | |
|---|---|---|---|
| May Occur | Will Not Occur | CONDITIONS TO AVOID | None |
| | X | | |

| | |
|---|---|
| STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED | Major spills should be collected for disposal. Minor spills may be flushed to sewer if local regulations permit. |
| WASTE DISPOSAL METHOD | Bury in suitable landfill where permitted under appropriate government regulations. |

| | |
|---|---|
| RESPIRATORY PROTECTION | None required. |
| VENTILATION | General (mechanical) room ventilation is expected to be satisfactory. |

| | | | |
|---|---|---|---|
| PROTECTIVE GLOVES | Recommended | EYE PROTECTION | Safety glasses |
| OTHER PROTECTIVE EQUIPMENT | Eye Bath | | |

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**
Avoid breathing vapors, particularly those in the top of the shipping container.
Keep container closed.
Use with adequate ventilation.

**FOR INDUSTRY USE ONLY**

**OTHER PRECAUTIONS**
None

The opinions expressed herein are those of qualified experts within Union Carbide Corporation. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within the control of Union Carbide Corporation, it is the user's obligation to determine the conditions of safe use of the product.

| MATERIAL | % | TLV | HAZARD |
|---|---|---|---|
| Styrene-Acrylic Copolymer | ~46 | None Established | None Currently Known. |
| Formaldehyde | ~0.3 | 1 ppm, ACGIH<br>3 ppm, OSHA | Toxic, irritant, animal carcinogen. |
| Acrylonitrile | <0.001 | 2 ppm (skin) | Carcinogen |
| Water | ~54 | -- | -- |



Printed in U.S.A.

# WASTE DESCRIPTION CODES

These waste description codes were developed specifically for this survey to supplement the descriptions listed with the RCRA and other waste codes. (These waste description codes are not regulatory definitions.)

## WASTE DESCRIPTION CODES FOR HAZARDOUS WASTE DESCRIBED BY A SINGLE RCRA F, K, P, OR U WASTE CODE

A01 Spent solvent (F001-F005, K086)
A02 Other organic liquid (F001-F005, K086)
A03 Still bottom (F001-F005, K086)
A04 Other organic sludge (F001-F005, K086)
A05 Wastewater or aqueous mixture
A06 Contaminated soil or cleanup residue
A07 Other F or K waste, exactly as described*
A08 Concentrated off-spec or discarded product
A09 Empty containers
A10 Incinerator ash
A11 Solidified treatment residue
A12 Other treatment residue (specify in the answer space provided)
A13 Other untreated waste (specify in the answer space provided)

*"Exactly as described" means that the waste matches the description of the RCRA waste code.

## WASTE DESCRIPTION CODES FOR HAZARDOUS WASTE DESCRIBED BY A SINGLE RCRA D OR X WASTE CODE* OR THAT DESCRIBED BY MORE THAN ONE RCRA OR X WASTE CODE

**INORGANIC LIQUIDS**—Waste that is primarily inorganic and highly fluid (e.g., aqueous), with low suspended inorganic solids and low organic content.

B01 Aqueous waste with low solvents
B02 Aqueous waste with low other toxic organics
B03 Spent acid with metals
B04 Spent acid without metals
B05 Acidic aqueous waste
B06 Caustic solution with metals but no cyanides
B07 Caustic solution with metals and cyanides
B08 Caustic solution with cyanides but no metals
B09 Spent caustic
B10 Caustic aqueous waste
B11 Aqueous waste with reactive sulfides
B12 Aqueous waste with other reactives (e.g., explosives)
B13 Other aqueous waste with high dissolved solids
B14 Other aqueous waste with low dissolved solids
B15 Scrubber water
B16 Leachate
B17 Waste liquid mercury
B18 Other inorganic liquid (specify in the answer space provided)

**INORGANIC SLUDGES**—Waste that is primarily inorganic, with moderate-to-high water content and low organic content; pumpable.

B19 Lime sludge without metals
B20 Lime sludge with metals/metal hydroxide sludge
B21 Wastewater treatment sludge with toxic organics
B22 Other wastewater treatment sludge
B23 Untreated plating sludge without cyanides
B24 Untreated plating sludge with cyanides
B25 Other sludge with cyanides
B26 Sludge with reactive sulfides
B27 Sludge with other reactives
B28 Degreasing sludge with metal scale or filings
B29 Air pollution control device sludge (e.g., fly ash, wet scrubber sludge)
B30 Sediment or lagoon dragout contaminated with organics
B31 Sediment or lagoon dragout contaminated with inorganics only
B32 Drilling mud
B33 Asbestos slurry or sludge
B34 Chloride or other brine sludge
B35 Other inorganic sludge (specify in the answer space provided)

**INORGANIC SOLIDS**—Waste that is primarily inorganic and solid, with low organic content and low-to-moderate water content; not pumpable.

B36 Soil contaminated with organics
B37 Soil contaminated with inorganics only
B38 Ash, slag, or other residue from incineration of wastes
B39 Other "dry" ash, slag, or thermal residue
B40 "Dry" lime or metal hydroxide solids chemically "fixed"
B41 "Dry" lime or metal hydroxide solids not "fixed"
B42 Metal scale, filings, or scrap
B43 Empty or crushed metal drums or containers
B44 Batteries or battery parts, casings, cores
B45 Spent solid filters or adsorbents
B46 Asbestos solids and debris
B47 Metal-cyanide salts/chemicals
B48 Reactive cyanide salts/chemicals
B49 Reactive sulfide salts/chemicals
B50 Other reactive salts/chemicals
B51 Other metal salts/chemicals
B52 Other waste inorganic chemicals
B53 Lab packs of old chemicals only
B54 Lab packs of debris only
B55 Mixed lab packs
B56 Other inorganic solids (specify in the answer space provided)

**INORGANIC GASES**—Waste that is primarily inorganic with a low organic content and is a gas at atmospheric pressure.

B57 Inorganic gases

**ORGANIC LIQUIDS**—Waste that is primarily organic and is highly fluid, with low inorganic solids content and low-to-moderate water content.

B58 Concentrated solvent-water solution
B59 Halogenated (e.g., chlorinated) solvent
B60 Nonhalogenated solvent
B61 Halogenated/nonhalogenated solvent mixture
B62 Oil-water emulsion or mixture
B63 Waste oil
B64 Concentrated aqueous solution of other organics
B65 Concentrated phenolics
B66 Organic paint, ink, lacquer, or varnish
B67 Adhesives or expoxies
B68 Paint thinner or petroleum distillates
B69 Reactive or polymerizable organic liquid
B70 Other organic liquid (specify in the answer space provided)

**ORGANIC SLUDGES**—Waste that is primarily organic, with low-to-moderate inorganic solids content and water content; pumpable.

B71 Still bottoms of halogenated (e.g., chlorinated) solvents or other organic liquids
B72 Still bottoms of nonhalogenated solvents or other organic liquids
B73 Oily sludge
B74 Organic paint or ink sludge
B75 Reactive or polymerizable organics
B76 Resins, tars, or tarry sludge
B77 Biological treatment sludge
B78 Sewage or other untreated biological sludge
B79 Other organic sludge (specify in the answer space provided)

**ORGANIC SOLIDS**—Waste that is primarily organic and solid, with low-to-moderate inorganic content and water content; not pumpable.

B80 Halogenated pesticide solid
B81 Nonhalogenated pesticide solid
B82 Solid resins or polymerized organics
B83 Spent carbon
B84 Reactive organic solid
B85 Empty fiber or plastic containers
B86 Lab packs of old chemicals only
B87 Lab packs of debris only
B88 Mixed lab packs
B89 Other halogenated organic solid (specify in the answer space provided)
B90 Other nonhalogenated organic solid (specify in the answer space provided)

**ORGANIC GASES**—Waste that is primarily organic with low-to-moderate inorganic content and is a gas at atmospheric pressure.

B91 Organic gases

*A list of X waste codes was developed specifically for this survey. These X codes are not official RCRA waste codes and should be used ONLY for this survey.

# WASTE SOURCE CODES/OFFSITE MANAGEMENT CODES

The Waste Source Codes describe the processes that generate hazardous waste. The Offsite Management Codes describe the management operations hazardous waste goes through offsite.

## WASTE SOURCE CODES

**Surface Preparation Processes (Cleaning/Degreasing)**

S01 Stripping
S02 Vapor degreasing
S03 Steam cleaning
S04 Dip rinsing
S05 Flush rinsing
S06 Spray rinsing
S07 Fill and gravity draining
S08 Backflush rinsing
S09 Physical scraping/removal
S10 Pickling
S11 Caustic (alkali) cleaning
S12 Other cleaning/degreasing process (specify in the answer space provided)

**Other Waste Production Processes**

S13 Light ends condensation
S14 Heavy ends/still bottoms removal
S15 Reaction/synthesis media processing
S16 Crystallization
S17 Slag removal
S18 Tank bottoms removal
S19 Molding/forming
S20 By-product processing
S21 Polymerization
S22 Electroplating
S23 Electrolysis of aqueous solutions
S24 High temperature metal refining
S25 Fermentation and other biological processes
S26 Pyrolysis (thermal decomposition without enough oxygen for combustion, such as "cracking")
S27 Solvent extraction (organic and/or inorganic)
S28 Distillation and fractionation
S29 Size reduction (e.g., screening, milling, shredding)
S30 Materials handling
S31 Halogenation
S32 Hydrogenation
S33 Nitration
S34 Oxidation (other than combustion)
S35 Calcination
S36 Esterification
S37 Sulfonation
S38 Inorganic aqueous reactions
S39 Gas adsorption
S40 Filtration/centrifuging
S41 Combustion processes
S42 Extrusion/wet spinning
S43 Surface coating (e.g., painting, electroless plating, phosphating)
S44 Product rinsing
S45 Decantation/sedimentation
S46 Air and steam stripping
S47 Laboratory wastes
S48 Other waste production process (specify in the answer space provided)

**One-Time Processes**

S49 Discarding of off-spec material
S50 Discarding of out-of-date products or chemicals
S51 Cleanup of spill residues
S52 Discarding of contaminated cleanup equipment
S53 Accidental spills or discharges
S54 Other remedial action/cleanup (specify in the space provided)
S55 Other one-time process (specify in the answer space provided)

**Clean Out or Closure Processes**

S56 Clean out of surface impoundments
S57 Closure of surface impoundments
S58 Clean out of waste piles
S59 Closure of waste piles
S60 Clean out of process equipment
S61 Closure of process equipment
S62 Other clean out or closure process (specify in the answer space provided)

**Pollution Control or Waste Treatment Processes**

S63 Flue gas desulfurization
S64 Caustic scrubbing
S65 Electrostatic precipitation
S66 Condensate from VOC removal
S67 Filtering/screening
S68 Dewatering
S69 Regenerating
S70 Quench cooling
S71 Centrifugation
S72 Incineration
S73 Wastewater treatment
S74 Distillation
S75 Flotation or skimming
S76 Decantation or settling/clarification
S77 Other pollution control or waste treatment process (specify in the answer space provided)

**Other Processes**

S78 Other process (specify in the answer space provided)

## OFFSITE MANAGEMENT CODES

M01 Incineration
M02 Reused as fuel
M03 Fuel blending
M04 Solidification/stabilization
M05 Solvent or liquid organic recovery for reuse
M06 Metals recovery for reuse
M07 Wastewater treatment in tank
M08 Wastewater treatment in surface impoundment
M09 Wastewater treatment in unknown equipment type
M10 Other treatment/recovery
M11 Storage/treatment in waste pile
M12 Storage/disposal in surface impoundment
M13 Landfill
M14 Land treatment
M15 Underground injection
M16 Discharge to POTW
M17 Discharge under NPDES permit
M18 Other
M19 Unknown

# PROCESS CODES

These process codes were developed specifically for this survey to describe the onsite hazardous waste management operations at a facility.

## TREATMENT AND RECYCLING

### Incineration/thermal treatment

- 1I Liquid injection
- 2I Rotary (or rocking) kiln
- 3I Rotary kiln with a liquid injection unit
- 4I Two stage
- 5I Fixed hearth
- 6I Multiple hearth
- 7I Fluidized bed
- 8I Infra-red
- 9I Fume/vapor
- 10I Pyrolytic destructor
- 11I Other incineration/thermal treatment

### Reuse as fuel

- 1RF Cement kiln
- 2RF Aggregate kiln
- 3RF Asphalt kiln
- 4RF Other kiln
- 5RF Blast furnace
- 6RF Sulfur recovery furnace
- 7RF Smelting, melting, or refining furnace
- 8RF Coke oven
- 9RF Other industrial furnace
- 10RF Industrial boiler
- 11RF Utility boiler
- 12RF Process heater
- 13RF Other reuse as fuel unit

### Fuel blending

- 1FB Fuel blending

### Solidification

- 1S Cement or cement/silicate processes
- 2S Pozzolanic processes
- 3S Asphaltic processes
- 4S Thermoplastic techniques
- 5S Organic polymer techniques
- 6S Jacketing (macro-encapsulation)
- 7S Other solidification

### Recovery of solvents and liquid organics for reuse

- 1SR Fractionation
- 2SR Batch still distillation
- 3SR Solvent extraction
- 4SR Thin-film evaporation
- 5SR Filtration
- 6SR Phase separation
- 7SR Dessication
- 8SR Other solvent recovery (including pretreatment)

### Recovery of metals for reuse

- 1MR Electrolytic
- 2MR Ion exchange
- 3MR Reverse osmosis
- 4MR Solvent extraction
- 5MR Secondary smelting
- 6MR Liming
- 7MR Evaporation
- 8MR Filtration
- 9MR Sodium borohydride
- 10MR Other metals recovery (including pretreatment)

### Wastewater treatment

Equalization
- 1WT Equalization

Cyanide oxidation
- 2WT Alkaline chlorination
- 3WT Ozone
- 4WT Electrochemical
- 5WT Other cyanide oxidation

General oxidation (including disinfection)
- 6WT Chlorination
- 7WT Ozonation
- 8WT UV radiation
- 9WT Other general oxidation

Chemical precipitation
- 10WT Lime
- 11WT Sodium hydroxide
- 12WT Soda ash
- 13WT Sulfide
- 14WT Other chemical precipitation

Chromium reduction
- 15WT Sodium bisulfite
- 16WT Sulfur dioxide
- 17WT Ferrous sulfate
- 18WT Other chromium reduction

Complexed metals treatment (other than chemical precipitation by pH adjustment)
- 19WT Complexed metals treatment

Emulsion breaking
- 20WT Thermal
- 21WT Chemical
- 22WT Other emulsion breaking

Adsorption
- 23WT Carbon adsorption
- 24WT Ion exchange
- 25WT Resin adsorption
- 26WT Other adsorption

Stripping
- 27WT Air stripping
- 28WT Steam stripping
- 29WT Other stripping

Evaporation
- 30WT Thermal
- 31WT Solar
- 32WT Vapor recompression
- 33WT Other evaporation

Filtration
- 34WT Diatomaceous earth
- 35WT Sand
- 36WT Multimedia
- 37WT Other filtration

Sludge dewatering
- 38WT Gravity thickening
- 39WT Vacuum filtration
- 40WT Pressure filtration (belt, plate and frame, or leaf)
- 41WT Centrifuge
- 42WT Other sludge dewatering

Air flotation
- 43WT Dissolved air flotation
- 44WT Partial aeration
- 45WT Air dispersion
- 46WT Other air flotation

Oil skimming
- 47WT Gravity separation
- 48WT Coalescing plate separation
- 49WT Other oil skimming

Other liquid phase separation
- 50WT Decanting
- 51WT Other liquid phase separation

Biological treatment
- 52WT Activated sludge
- 53WT Fixed film—trickling filter
- 54WT Fixed film—rotating contactor
- 55WT Lagoon or basin, aerated
- 56WT Lagoon, facultative
- 57WT Anaerobic
- 58WT Other biological treatment

Other wastewater treatment
- 59WT Wet air oxidation
- 60WT Neutralization
- 61WT Nitrification
- 62WT Denitrification
- 63WT Flocculation and/or coagulation
- 64WT Settling (clarification)
- 65WT Reverse osmosis
- 66WT Other wastewater treatment

## OTHER PROCESSES (TREATMENT OR RECOVERY)

- 1TR Other treatment
- 2TR Other recovery for reuse

## ACCUMULATION

- 1A Containers
- 2A Tanks

## STORAGE

- 1ST Container (i.e., barrel, drum)
- 2ST Tank
- 3ST Waste piles
- 4ST Surface impoundment
- 5ST Other storage

## DISPOSAL

- 1D Landfill
- 2D Land treatment
- 3D Surface impoundment (to be closed as a landfill)
- 4D Underground injection well

## Air Pollution Control Device Codes

| | |
|---|---|
| 1AP | Cyclone |
| 2AP | Quench |
| 3AP | Boiler |
| 4AP | Flare |
| 5AP | Baghouse |
| 6AP | Condenser |
| 7AP | High impact scrubber |
| 8AP | Venturi scrubber |
| 9AP | Packed bed scrubber |
| 10AP | Wet scrubber |
| 11AP | Wet ionizing scrubber |
| 12AP | Mist eliminator |
| 13AP | Carbon adsorption device |
| 14AP | Vapor/fume incinerator |
| 15AP | Electrostatic precipitator |
| 16AP | Wet electrostatic precipitator |
| 17AP | Daily earth cover |
| 18AP | Earth cover |
| 19AP | Wind screen |
| 20AP | Synthetic cover |
| 21AP | Synthetic membrane |
| 22AP | Floating synthetic membrane |
| 23AP | Internal floating roof |
| 24AP | External floating roof |
| 25AP | Enclosure with control device |
| 26AP | Enclosure without control device |
| 27AP | Submerged loading |
| 28AP | Non-vented tanks |
| 29AP | Refrigeration/condensation emission device |
| 30AP | Chemical stabilization |
| 31AP | Vented gas collection |
| 32AP | Wetting |
| 33AP | Other |

## Constituent Concentration Range Codes

| | | |
|---|---|---|
| 01 — ≥ 90% | 06 — ≥ 1% < 10% | 11 — ≥ 1 ppm < 10 ppm |
| 02 — ≥ 75% < 90% | 07 — ≥ 0.1% < 1% | 12 — ≥ 0.1 ppm < 1 ppm |
| 03 — ≥ 50% < 75% | 08 — ≥ 500 ppm < 0.1% | 13 — ≥ 1 ppb < 0.1 ppm |
| 04 — ≥ 25% < 50% | 09 — ≥ 100 ppm < 500 ppm | 14 — < 1 ppb |
| 05 — ≥ 10% < 25% | 10 — ≥ 10 ppm < 100 ppm | |

# COATINGS PRODUCED WITH THE METCO TYPE 4R ARC SPRAY SYSTEM

The following Engineering Information is certified for release to Marketing in accordance with Procedure No. 251 and subject to the restrictions stated.

This ER lists the parameters developed and coating properties attained using the METCO Type 4R Arc Spray System. The information is presented in three tables and concerns the variations in coating properties when using the different air caps supplied with this hardware. The specific caps include a Fan Cap for standard applications, a Fine Cap for narrow width, fine surface finishes and a High Profile Cap for rough anti-skid Aluminum deposits. These air caps are referred to in Tables 1 and 2a through 2e.

The design of the 4R System allows the use of secondary air pressure which gives the equipment flexibility to tailor coatings to produce a specific requirement. For example, Tables 2a through 2e show the variations in properties which can be achieved altering the secondary air pressure. In addition to this latitude, the 4R gun can spray satisfactory Zinc coatings for EMI shielding on "Noryl" and "Lexan" Engineering plastics in conformance to ASTM Standard D3359-78 for bond strength (see Table 3). The 4RG data also showed that higher bond strengths and hardness are obtainable for Zinc, Aluminum, and METCOLOY No. 2 coatings when compared to TAFA wires of equivalent composition applied with the TAFA 8830 System.

Finally, this ER points out the equipment advantages of the 4R Arc Spray System over the TAFA 8830 hardware.

Table 1 - Standard Spray Parameters

The quality of the coatings sprayed with the 4R System are equivalent to Standard 2R deposits. The bond strength of the 4R coatings, however, are approximately 30% to 40% better than the 2R published bond strength values and approximately 10% better than currently tested 2R overlays.

A possible cause for this increase is the higher particle velocity (approximately 35%) achieved with the 4R System as compared to the 2R hardware. As a result of this higher velocity, the kinetic energy of the particles is increased resulting in greater impact into the substrate surface.

Table 1 does not include parameters for spraying METCO Zinc-Aluminum AW (85/15) wire. Although this material was not included in the original PPN, subsequent attempts to spray this wire were unsuccessful. The current thinking is that the lubrication on this alloy is inhibiting electrical contact resulting in severe spitting and amperage fluctuations.

Written: CJW Checked: KWK Appvd: BAK
Date: 19 June 85 Date: 19 June 85 Date: 19 June 85 Iss. a
Revised: Checked: Appvd: ECN.
Date: Date: Date: Iss.

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COATINGS PRODUCED WITH THE
METCO TYPE 4R ARC SPRAY SYSTEM

Tables 2a through 2e - Fan, Fine and High Profile Air Cap Parameters

The parameters referred to in Tables 2a through 2e represent a parameter range for these air caps and their related coating properties.

The coating properties for the Fan and Fine Air Caps are similar; the difference being the width of the spray pattern achieved with the specific hardware. For example, with the Fan Cap the spray pattern width ranges from 2 to 12 inches, whereas the spray pattern width using the Fine Cap is approximately 1 1/2 to 2 inches. With both Air Caps, as the secondary air pressure is increased, the hardness, surface finish, and bond strength values all generally improve.

The improvement in bond strength, as noted previously, is thought to be related to increased particle velocity.

In reviewing the microstructures of the 4R coatings, it was evident that as the secondary air pressure was increased, the oxide layers varied from being widely spaced and coarse in size to becoming densely spaced and fine in size.

This change would be expected to improve the macrohardness and surface finish properties previously noticed.

The spray rates generally remained constant once set, since they are dependent upon the power level input. The deposit efficiency, however, tended to decrease as the secondary air pressure was increased. This is probably a result of increased overspray and partial cooling of the particles.

The primary purpose of the High Profile Air Cap is to produce a rough, anti-skid Aluminum coating. The as-sprayed surface of this deposit was approximately 2000 to 3000 as measured on the AA scale.

This Air Cap was specifically designed to deposit large unmelted particles on the substrate surface, thereby producing the desired rough surface finish. The other coating properties for this Aluminum overlay are listed in Table 2a.

Drawn: J. Checked: RWK Appvd: [illegible]
Date: 19 June 85 Date: 19 JUNE 85 Date: 19 June 85 Iss. a
Revised: Checked: Appvd: ECN.
Date: Date: Date: Iss.

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# COATINGS PRODUCED WITH THE METCO TYPE 4R ARC SPRAY SYSTEM

## Tables 2a through 2e - Comparison of TAFA Sprayed Zinc, Aluminum and METCOLOY No. 2 Equivalents with 4RG Coatings

TAFA Coatings of Zinc, Aluminum and METCOLOY No. 2 equivalent wires were sprayed using the TAFA 8830 System and compared to the 4RG deposits of the same materials. The results show that the 4RG overlays developed higher bond strengths and increased hardnesses via-a-vis published TAFA values.

Comparing the general operation of the two systems, the following was observed:

- The TAFA gun plus hoses weighs more than the 4RG plus hoses (11 lbs. vs 7 lbs. 8 oz. respectively).
- To correctly feed the wire through the TAFA System, the drive rollers, inconveniently located on the gun body, must be adjusted for each wire. If the rollers are adjusted too loose or too tight, the wire will either slip or become deformed. There are no such adjustments on the 4RG.
- With the TAFA System, the wire must be manually passed to the gun. In the 4R System, once the wire is placed between the push rollers, on the console, the wire automatically passes to the pull rollers in the gun when the gun trigger is depressed.
- To establish the desired coatings with both systems, there are certain required components. With the 4R System there are the three air caps. The TAFA System has four nozzle caps and four nozzle positioners, all interchangeable, with each combination (there being sixteen) providing a slightly different coating.

## Table 3 - Zinc AW Deposited on General Electric Noryl and Lexan Plastics

The Zinc coatings were sprayed with the Fan and Fine Air Caps using the parameters listed in Table 3. The coating properties examined were bond strength and as-sprayed surface finish. The substrate surfaces were either grit-blasted with METCOLITE F and degreased or degreased only.

Briefly, the bond strength, tested in accordance with the ASTM Standard D3359-78, was acceptable on both the blasted and unblasted surfaces.

Date: 19 June 85 Checked: KWK Apprvd: BAK iss. a
Revised: Checked: Apprvd: ECN:
Date: Date: iss.

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METCO

# COATINGS PRODUCED WITH THE METCO TYPE 4R ARC SPRAY SYSTEM


## SUMMARY

A comparison of hardness, deposit efficiency, oxide level, surface finish and porosity of 4R coatings sprayed at standard parameters showed no differences to comparable coatings sprayed with the 2R System. However, the bond strength of 4R coatings sprayed under these conditions showed better results than coatings sprayed with the 2R Gun. The higher particle velocities achieved with the 4R System are considered the principal reason for this improvement. The versatility of the 4RG Gun is demonstrated by its ability to customize coatings depending upon the type of air cap used. The higher particle velocities attained with the 4R unit aid in its ability to deposit Zinc coatings on "Noryl" and "Lexan" Engineering plastics in conformance with ASTM Standard D3359-78 and is considered one of the reasons for its improved coating quality over TAFA 8830 sprayed deposits of similar alloy composition.


Written by:

R W Kaufold

Engineer

Approved by:

B. A. Kushner

Materials Engr. Supvr.

Drawn: [illegible] Checked: RWK Appvd: BAK
Date: 19 June 85 Date: 19 JUNE 85 Date: 19 June iss. a
Revised: Checked: Appvd: ECN.
Date: Date: Date: iss.

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METCO

COATINGS PRODUCED WITH THE
METCO TYPE 4R ARC SPRAY SYSTEM

Table 3 - Zinc AW Coatings Deposited on General Electric Noryl and Lexan Plastics

| PLASTIC | AIR CAP (NOTE 4) | SURFACE PREP. (NOTE 3) | AMP. | VOLT. | AIR PRES. Prim. | AIR PRES. Sec. | AS-SPRAYED SURFACE (AA) (NOTE 2) | BOND STRENGTH (NOTE 1) |
|---|---|---|---|---|---|---|---|---|
| NORYL | FINE | Grit Blast | 200 | 28 | 65 | 65 | 350-500 | Acceptable |
| | FINE | No Grit Blast | 200 | 28 | 65 | 65 | 300-450 | Acceptable |
| | FAN | Grit Blast | 200 | 28 | 65 | 65 | 400-550 | Acceptable |
| | FAN | No Grit Blast | 200 | 28 | 65 | 65 | 250-350 | Acceptable |
| | | | | | | | | |
| LEXAN | FINE | Grit Blast | 200 | 28 | 65 | 65 | 400-600 | Acceptable |
| | FINE | No Grit Blast | 200 | 28 | 65 | 65 | 400-550 | Acceptable |
| | FAN | Grit Blast | 200 | 28 | 65 | 65 | 400-650 | Acceptable |
| | FAN | No Grit Blast | 200 | 28 | 65 | 65 | 300-450 | Acceptable |
| | | | | | | | | |

Notes

1. Bond strength tested in accordance with the ASTM Standard D3359-78.
2. As-sprayed surface finish values are as measured on the AA scale.
3. Substrate surfaces were either grit-blasted using METCOLITE F grit and degreased or just degreased.
4. Spray distance was 6 to 8 inches.

Drawn: CJW Checked: RWK Appvd: BAK Date: 19 June 85 Date: 19June85 Iss. 8
Revised: Checked: Appvd: ECN.
Date: Date: Iss.

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# TABLE 1 – STA'"DARD PARAMETERS

| WIRE | GUN (Notes 1,2,6) | ATR PRESSURE (PSI) Prim | Sec. | AMP | VOLT | SPRAY DISTANCE (Inches) | AS-SPRAYED SURFACE (AA) | AS-MACH. SURFACE (AA) | AS-GROUND SURFACE (AA) | HARDNESS | DENSITY (g/cc) | POROSITY % | OXIDE % | RATE (LBS/HR) | D.E. (%) | BOND STRENGTH AVG (PSI) Note 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALUMINUM | 4R | 65 | 20 | 200 | 28-30 | 6 to 8 | 1100-1800 | 70-110 | — | Rh 38 | 2.1 | 7.3 | 2 | 10 | 79 | 5863 |
| AW | 2R | 65 | — | 200 | 28-30 | 6 to 8 | 1100-1800 | 80-100 | — | Rh 45 | 2.2 | 7.0 | 2 | 11 | 80 | 4200 |
| METCOLOY-2 | 4R | 65 | 0 | 200 | 28-30 | 6 to 8 | 800-1400 | 40-140 | 10-20 | Rc 38 | 6.6 | 5.1 | 10 | 19 | 86 | 6217 |
| | 2R | 65 | — | 200 | 28-30 | 6 to 8 | 700-1000 | 100-150 | 8-21 | Rc 46 | 6.7 | 5.0 | 10 | 18 | 81 | 4350 |
| METCOLOY-5 | 4R | 65 | 0 | 200 | 28-30 | 6 to 8 | 700-1100 | 50-100 | 20-30 | Rb 95 | 6.5 | 8.7 | 18 | 20 | 85 | 6320 |
| | 2R | 65 | — | 200 | 28-30 | 6 to 8 | 800-1000 | 80-100 | 15-35 | Rb 89 | 6.4 | 8.6 | 17 | 19 | 85 | 3400 |
| METCO-470 | 4R | 65 | 0 | 200 | 28-30 | 6 to 8 | 1300-1800 | 55-65 | — | Rb 86 | 6.9 | 5.4 | 2 | 14 | 82 | 7760 |
| (Note 4) | 2R | 65 | — | 200 | 28-30 | 6 to 8 | 1000-1500 | 50-70 | — | Rb 92 | 7.2 | 5.2 | 2 | 14 | 62 | 6500 |
| PRABRONZE | 4R | 65 | 0 | 200 | 28-30 | 6 to 8 | 1700-2500 | 30-45 | — | Rb 50 | 6.1 | 10.5 | 4 | 15 | 71 | 6704 |
| AA (Note 4) | 2R | 65 | - | 200 | 28-30 | 6 to 8 | 1000-1500 | 40-50 | — | Rb 58 | 6.4 | 7.8 | 5 | 16 | 63 | 4700 |
| PRABABBITT | 4R | 65 | 65 | 150 | 28-30 | 6 to 8 | 450-600 | 30-35 | — | Rh 42 | 6.0 | 4.1 | — | 38 | 48 | 2745 |
| A | 2R | 65 | - | 150 | 28-30 | 6 to 8 | 1000-1300 | 65-75 | — | Rh 40 | 5.9 | 3.5 | — | 40 | 50 | 1742 |
| METCO ZINC | 4R | 65 | 30 | 200 | 22 | 6 to 8 | 700-1000 | 30-40 | — | Rh 22 | 5.8 | 4.8 | — | 40 | 67 | 2778 |
| AW (Note 5) | 2R | 65 | - | 200 | 28 | 6 to 8 | 600-900 | 50-60 | — | Rh 19 | 5.9 | 7.3 | — | 35 | 63 | 978 |
| PRASTEEL | 4R | 65 | 0 | 200 | 28-30 | 6 to 8 | 600-800 | 45-65 | 25-45 | Ra 60 | 6.4 | 7.5 | 15 | 19 | 81 | 6019 |
| 10 | 2R | 65 | - | 200 | 28-30 | 6 to 8 | 900-1000 | 50-80 | — | Ra 60 | 6.4 | 6.8 | 17 | 19 | 75 | 4029 |
| PRASTEEL | 4R | 65 | 0 | 200 | 28-30 | 6 to 8 | 800-1200 | 50-120 | 40-90 | Ra 58 | 6.4 | 6.1 | 14 | 17 | 80 | 8129 |
| 80 | 2R | 65 | - | 200 | 28-30 | 6 to 8 | 800-1000 | 80-90 | 50-80 | Ra 60 | 6.6 | 6.6 | 15 | 17 | 84 | 3775 |
| COPPER | 4R | 80 | 0 | 200 | 28-30 | 6 to 8 | 900-1300 | 13-22 | — | Rb 23 | 6.8 | 7.9 | 40 | 33 | 70 | 2221 |
| ALAY | 2R | 65 | — | 200 | 28-30 | 6 to 8 | 900-1300 | 12-22 | — | Rb 24 | 7.5 | 7.2 | 40 | 29 | 74 | 1172 |

Table 1 - Notes

1. Fan Air Cap used to develop 4R standard parameters.

2. 2RG coating properties from published values.

3. Bond strength values are averages of three tests.

4. Bond strength of SPRABRONZE AA and METCO 470 were tested on ground surfaces. The remaining eight wires were tested on grit-blasted surfaces.

5. Zinc II gauge and 2 mm were sprayed at the parameters shown for Zinc AW 14 gauge.

6. Thickness limitation with the 4R System was on the average .125. All samples tested on grit-blasted surfaces.

| COATING | ATR PRESSURE (P.S.I.) Prim. | Sec. | AMP. | VOLT. | SPRAY DISTANCE (Inches) | AS SPRAYED SURFACE (AA) C Grit | VF Grit | AS MACH. SURFACE (AA) | AS GROUND SURFACE (AA) | HARDNESS | DENSITY (g/cc) | POROSITY (%) | OXIDE (%) | RATE (LBS/Hr.) | D.E. (%) | BOND STRENGTH AVG. (P.S.I.) Note 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALUMINUM | | | | | | | | | | | | | | | | |
| Fan (Note 3) | 65 | 20 | 200 | 28-30 | 6 to 8 | 1100-1800 | 800-1300 | 70-110 | — | Rh38 | 2.1 | 7.3 | 2 | 10 | 79 | 5863 |
| Fan (Note 7) | 65 | 65 | 200 | 28-30 | 6 to 8 | 700-1000 | 500-700 | 70-110 | — | Rh60 | 2.3 | 6.8 | 3 | 10 | 60 | 7182 |
| Fan (Note 1) | 65 | 65 | 200 | 28-30 | 6 to 8 | 800-1100 | — | — | — | Rh55 | 2.0 | 6.9 | 2 | 10 | 55 | 5280 |
| Fan (Note 2) | 65 | 65 | 200 | 28-30 | 6 to 8 | 900-1300 | — | — | — | Rh49 | 2.2 | 9.0 | 1 | 10 | 62 | 6225 |
| High Profile | 10 | 0 | 150 | 28-30 | 6 to 8 | 2000-3000 | — | — | — | Rh10 | 1.9 | 20 | — | — | — | 978 |
| Fine | 65 | 30 | 200 | 28-30 | 6 to 8 | 1200-1600 | 600-800 | 70-120 | — | Rh40 | 2.1 | 7.1 | 2 | 10 | 78 | 6812 |
| Fine | 65 | 65 | 200 | 28-30 | 6 to 8 | 800-1200 | 400-600 | 70-115 | — | Rh66 | 2.3 | 6.6 | 3 | 10 | 67 | 8025 |
| Fine (Note 2) | 65 | 65 | 200 | 28-30 | 6 to 8 | 900-1250 | — | — | — | Rh50 | 2.1 | 9.2 | 1 | 10 | 65 | 6768 |
| TAFA (Note 6) | 60 | Note 8 | 100 | 28-30 | 6 to 8 | — | 550-750 | — | — | Rh50 | — | — | 2 | 6 | 61 | 4375 |
| | | | | | | | | | | | | | | | | |
| COPPER | | | | | | | | | | | | | | | | |
| Fan (Note 3) | 80 | 0 | 200 | 28-30 | 6 to 8 | 900-1300 | — | 13-22 | — | Rb23 | 6.8 | 7.9 | 40 | 33 | 70 | 2221 |
| Fan | 80 | 80 | 200 | 28-30 | 6 to 8 | 500-750 | — | 15-30 | — | Rb33 | 7.1 | 7.5 | 43 | 33 | 62 | 2353 |
| Fine | 80 | 20 | 200 | 28-30 | 6 to 8 | 800-1200 | — | 15-35 | — | Rb28 | 6.9 | 7.7 | 40 | 33 | 68 | 2481 |
| Fine | 80 | 80 | 200 | 28-30 | 6 to 8 | 450-550 | — | 9-15 | — | Rb53 | 7.2 | 7.3 | 45 | 33 | 62 | 2464 |
| | | | | | | | | | | | | | | | | |

Table 6b

| COATING | AIR PRESSURE (P.S.I.) Prim. | Sec. | AMP. | VOLT | SPRAY DISTANCE (Inches) | AS SPRAYED SURFACE (AA) C Grit | VF Grit | AS MACH. SURFACE (AA) | AS GROUND SURFACE (AA) | HARDNESS | DENSITY (g/cc) | POROSITY (%) | OXIDE (%) | RATE (LBS/Hr.) | D.E. (%) | BOND STRENGTH AVG. (P.S.I.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZINC AW | | | | | | | | | | | | | | | | Note 9 |
| Fan (Note 3) | 65 | 30 | 200 | 22 | 6 to 8 | 700 – 1000 | 550 – 750 | 30-40 | — | Rh22 | 5.8 | 4.8 | — | 40 | 67 | 2778 |
| Fan (Note 7) | 85 | 85 | 200 | 22 | 6 to 8 | 300 – 550 | 180 – 300 | — | — | Rh30 | 6.1 | 4.5 | — | 40 | 55 | 3383 |
| Fan (Note 1) | 65 | 65 | 200 | 22 | 6 to 8 | 500 – 700 | — | — | — | Rh28 | 6.0 | 4.6 | — | 40 | 50 | 1481 |
| Fan (Note 2) | 65 | 65 | 200 | 22 | 6 to 8 | 600 – 750 | — | — | — | Rh 8 | 5.5 | 5.2 | — | 40 | 65 | 2930 |
| Fan (Note 5) | 65 | 65 | 200 | 22 | 6 to 8 | 400 – 500 | — | — | — | Rh28 | — | — | — | 40 | 58 | — |
| Fan (Note 4) | 65 | 65 | 200 | 22 | 6 to 8 | 350 – 600 | — | — | — | Rh27 | — | — | — | 40 | 56 | — |
| Fine | 65 | 30 | 200 | 22 | 6 to 8 | 600 – 900 | 500 – 700 | 30-40 | — | Rh28 | 5.9 | 4.7 | — | 40 | 58 | 3393 |
| Fine | 85 | 85 | 200 | 22 | 6 to 8 | 400 – 550 | 200 – 300 | — | — | Rh32 | 6.2 | 4.5 | — | 40 | 52 | 3630 |
| Fine (Note 2) | 65 | 65 | 200 | 22 | 6 to 8 | 600 – 800 | — | — | — | Rh28 | 6.1 | 4.6 | — | 40 | 46 | 1728 |
| Fine (Note 5) | 65 | 65 | 200 | 22 | 6 to 8 | 400 – 550 | — | — | — | Rh30 | — | — | — | 40 | 59 | — |
| Fine (Note 4) | 65 | 65 | 200 | 22 | 6 to 8 | 400 – 550 | — | — | — | Rh28 | — | — | — | 40 | 57 | — |
| TAFA (Note 6) | 60 | Note 8 | 200 | 22 | 6 to 8 | 300 – 400 | 250 – 550 | — | — | Rh18 | — | — | — | 27 | 61 | 1224 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| COATING | AIR PRESSURE (P.S.I.) Prim. | Sec. | AMP. | VOLT | SPRAY DISTANCE (Inches) | AS SPRAYED SURFACE (AA) C Grit | VF Grit | AS MACH. SURFACE (AA) | AS GROUND SURFACE (AA) | HARDNESS | DENSITY (g/cc) | POROSITY (%) | OXIDE (%) | RATE (lbs/hr) | D.E. (%) | BOND STRENGTH AVG. (P.S.I.) Note 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| METCOLOY #2 | | | | | | | | | | | | | | | | |
| Fan (Note 3) | 65 | 0 | 200 | 28-30 | 6 to 8 | 800-1400 | — | 90-140 | 10-20 | Rc 38 | 6.6 | 5.1 | 10 | 19 | 86 | 6217 |
| Fan (Note 7) | 65 | 65 | 200 | 28-30 | 6 to 8 | 500-650 | — | 75-130 | 10-20 | Rc 40 | 6.4 | 4.0 | 15 | 19 | 76 | 7697 |
| Fan (Note 2) | 65 | 0 | 200 | 30-33 | 6 to 8 | 900-1250 | — | — | — | Rc 37 | 6.4 | 6.0 | 10 | 19 | 86 | 7069 |
| Fine | 65 | 40 | 200 | 28-30 | 6 to 8 | 600-900 | 450-600 | — | — | Rc 41 | 6.5 | 5.0 | 12 | 19 | 82 | 8102 |
| Fine | 65 | 65 | 200 | 28-30 | 6 to 8 | 450-650 | 300-400 | 30-80 | 10-15 | Rc 50 | 6.5 | 4.0 | 35 | 19 | 80 | 9502 |
| TAFA (Note 6) | 60 | Note 8 | 200 | 28-30 | 6 to 8 | 500-800 | 500-750 | — | — | Rc 33 | — | — | 15 | 11 | 76 | 4730 |
| | | | | | | | | | | | | | | | | |
| METCOLOY #5 | | | | | | | | | | | | | | | | |
| Fan (Note 3) | 65 | 0 | 200 | 28-30 | 6 to 8 | 700-1100 | — | 50-100 | 20-30 | Rb 95 | 6.5 | 8.7 | 18 | 20 | 85 | 6320 |
| Fan | 65 | 65 | 200 | 28-30 | 6 to 8 | 400-650 | — | 75-90 | 15-25 | Rb 91 | 6.4 | 8.3 | 20 | 20 | 78 | 6964 |
| Fan (Note 2) | 65 | 65 | 200 | 30-33 | 6 to 8 | 700-1100 | — | — | — | Rb 89 | 6.7 | 8.8 | 17 | 21 | 85 | 6327 |
| Fine | 65 | 0 | 200 | 28-30 | 6 to 8 | 1000-1600 | — | — | — | Rb 88 | 6.5 | 8.7 | 15 | 20 | 84 | 6230 |
| Fine | 65 | 65 | 200 | 28-30 | 6 to 8 | 500-800 | — | 70-110 | 20-30 | Rb 98 | 6.5 | 8.3 | 17 | 20 | 79 | 6874 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

Table cd

| COATING | AIR PRESSURE (P.S.I.) Prim. | Sec. | AMP. | VOLT | SPRAY DISTANCE (Inches) | AS SPRAYED SURFACE (AA) C Grit | V Grit | AS MACH. SURFACE (AA) | AS GROUND SURFACE (AA) | HARDNESS | DENSITY (g/cc) | POROSITY (%) | OXIDE (%) | RATE (LBS/Hr.) | D.E. (%) | BOND STRENGTH AVG. (P.S.I.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | Note 9 |
| SPRASTEEL-10 | | | | | | | | | | | | | | | | |
| Fan (Note 3) | 65 | 0 | 200 | 28-30 | 6 to 8 | 600-800 | — | 45-65 | 25-45 | Ra 60 | 6.4 | 7.5 | 15 | 19 | 81 | 6015 |
| Fan | 65 | 65 | 200 | 28-30 | 6 to 8 | 500-600 | — | 25-35 | 15-25 | Ra 63 | 6.7 | 6.8 | 18 | 19 | 78 | 6323 |
| Fine | 65 | 0 | 200 | 28-30 | 6 to 8 | 800-1200 | — | — | — | Ra 59 | 6.4 | 7.2 | 16 | 19 | 84 | 6475 |
| Fine | 65 | 65 | 200 | 28-30 | 6 to 8 | 700-900 | — | 50-60 | 15-25 | Ra 60 | 7.1 | 6.3 | 16 | 19 | 79 | 6783 |
| | | | | | | | | | | | | | | | | |
| SPRASTEEL-80 | | | | | | | | | | | | | | | | |
| Fan (Note 3) | 65 | 0 | 200 | 28-30 | 6 to 8 | 800-1200 | — | 50-120 | 40-90 | Ra 58 | 6.4 | 6.1 | 14 | 17 | 80 | 8129 |
| Fan | 65 | 65 | 200 | 28-30 | 6 to 8 | 700-900 | — | 65-80 | 30-40 | Ra 65 | 6.5 | 6.7 | 15 | 17 | 75 | 8726 |
| Fine | 65 | 0 | 200 | 28-30 | 6 to 8 | 800-1500 | — | — | — | Ra 60 | 6.5 | 6.1 | 15 | 17 | 82 | 7715 |
| Fine | 65 | 65 | 200 | 28-30 | 6 to 8 | 600-900 | — | 40-70 | 40-70 | Ra 67 | 6.4 | 7.1 | 16 | 17 | 77 | 8312 |
| | | | | | | | | | | | | | | | | |
| SPRABABBITT A | | | | | | | | | | | | | | | | |
| Fan | 65 | 0 | 150 | 28-30 | 6 to 8 | 700-1250 | — | — | — | Rh 12 | — | — | — | 38 | 56 | — |
| Fan (Note 3) | 65 | 65 | 150 | 28-30 | 6 to 8 | 450-600 | — | 30-35 | — | Rh 42 | 6.0 | 4.1 | — | 38 | 48 | 2745 |
| Fine | 65 | 0 | 150 | 28-30 | 6 to 8 | 1300-1800 | — | — | — | Rh 2 | — | — | — | 38 | 58 | — |
| Fine | 65 | 65 | 150 | 28-30 | 6 to 8 | 450-750 | — | 35-40 | — | Rh 44 | 6.1 | 3.9 | — | 38 | 50 | 2126 |

Table 2e

| COATING | AIR PRESSURE (P.S.I.) Prim. | Sec. | AMP. | VOLT. | SPRAY DISTANCE (Inches) | AS SPRAYED SURFACE (AA) C Grit | VF Grit | AS MACH. SURFACE (AA) | AS GROUND SURFACE (AA) | HARDNESS | DENSITY (g/cc) | POROSITY (%) | OXIDE (%) | RATE (Lbs/Hr.) | D.E. (%) | BOND STRENGTH AVG. (P.S.I.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 470 AW | | | | | | | | | | | | | | | | Note 9 |
| Fan (Note 3) | 65 | 0 | 200 | 28-30 | 6 to 8 | 1300-1800 | — | 55-65 | — | Rb 86 | 6.9 | 5.9 | 2 | 14 | 82 | 7760 |
| Fan | 65 | 65 | 200 | 28-30 | 6 to 8 | 700-1000 | — | 80-90 | — | Rb 94 | 6.9 | 5.6 | 2 | 14 | 79 | 8263 |
| Fine | 65 | 0 | 200 | 28-30 | 6 to 8 | 1800-3000 | — | 60-75 | — | Rb 84 | 7.0 | 5.5 | 2 | 14 | — | — |
| Fine | 65 | 65 | 200 | 28-30 | 6 to 8 | 800-1100 | — | 80-90 | — | Rb 95 | 6.9 | 5.8 | 2 | 14 | 80 | 7828 |
| | | | | | | | | | | | | | | | | |
| SPRABRONZE AA | | | | | | | | | | | | | | | | |
| Fan (Note 3) | 65 | 0 | 200 | 28-30 | 6 to 8 | 1700-2500 | — | 30-45 | — | Rb 50 | 6.1 | 10.5 | 4 | 15 | 71 | 6704 |
| Fan | 65 | 65 | 200 | 28-30 | 6 to 8 | 900-1400 | — | 18-28 | — | Rb 58 | 5.7 | 8.4 | 8 | 15 | 65 | 6840 |
| Fine | 65 | 0 | 200 | 28-30 | 6 to 8 | 900-1300 | — | 30-40 | 20-25 | Rb 51 | 5.9 | 10.0 | 4 | 15 | 80 | 6429 |
| Fine | 65 | 65 | 200 | 28-30 | 6 to 8 | 700-1000 | — | 12-17 | — | Rb 60 | 6.1 | 8.3 | 7 | 15 | 64 | 4808 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

Tables 2a through 2e - Notes

1. Represents 12-inch spray distance.
2. Represents 50-foot cable.
3. Represents standard parameter.
4. Represents 11 gauge wire.
5. Represents 2 mm wire.
6. Bond strength values for TAFA coating are those found in the operating manual.
7. The 4RG parameters used in the comparison test with the TAFA 8830 system.
8. TAFA system 8830 has no secondary air pressure, but uses a wire feed pressure set at 50 psi for all wires.
9. Bond strength average is an average of at least three tests.

EPA

# EPA FORM R
## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/yr) | | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|---|
| | | A.1 Reporting Ranges 1-10 [ ] 11-499 [ ] 500-999 [ ] | A.2 Enter Estimate | | |
| 5.3 Discharges to receiving streams or water bodies | 5.3.___ [ ] | 5.3.___a [ ] [ ] [ ] | | 5.3.___b [ ] | 5.3.___c ___ % |
| (Enter letter code from Part I Section 3.10 for stream(s) in the box provided.) | 5.3.___ [ ] | 5.3.___a [ ] [ ] [ ] | | 5.3.___b [ ] | 5.3.___c ___ % |
| | 5.3.___ [ ] | 5.3.___a [ ] [ ] [ ] | | 5.3.___b [ ] | 5.3.___c ___ % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/yr) | | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| | A.1 Reporting Ranges 1-10 [ ] 11-499 [ ] 500-999 [ ] | A.2 Enter Estimate | | |
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) [1] [ ] | [ ] [ ] [ ] | | 6.1.___b [ ] | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) [2] [ ] | [ ] [ ] [ ] | | 6.2.___b [ ] | 6.2.___c [M] [ ] [ ] |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) [2] [ ] | [ ] [ ] [ ] | | 6.2.___b [ ] | 6.2.___c [M] [ ] [ ] |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) [2] [ ] | [ ] [ ] [ ] | | 6.2.___b [ ] | 6.2.___c [M] [ ] [ ] |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes No |
|---|---|---|---|---|---|
| 7.___a [ ] | 7.___b [ ][ ][ ] | 7.___c [ ] | 7.___d [ ] | 7.___e ___ % | 7.___f [ ] [ ] |
| 7.___a [ ] | 7.___b [ ][ ][ ] | 7.___c [ ] | 7.___d [ ] | 7.___e ___ % | 7.___f [ ] [ ] |
| 7.___a [ ] | 7.___b [ ][ ][ ] | 7.___c [ ] | 7.___d [ ] | 7.___e ___ % | 7.___f [ ] [ ] |
| 7.___a [ ] | 7.___b [ ][ ][ ] | 7.___c [ ] | 7.___d [ ] | 7.___e ___ % | 7.___f [ ] [ ] |
| 7.___a [ ] | 7.___b [ ][ ][ ] | 7.___c [ ] | 7.___d [ ] | 7.___e ___ % | 7.___f [ ] [ ] |
| 7.___a [ ] | 7.___b [ ][ ][ ] | 7.___c [ ] | 7.___d [ ] | 7.___e ___ % | 7.___f [ ] [ ] |
| 7.___a [ ] | 7.___b [ ][ ][ ] | 7.___c [ ] | 7.___d [ ] | 7.___e ___ % | 7.___f [ ] [ ] |
| 7.___a [ ] | 7.___b [ ][ ][ ] | 7.___c [ ] | 7.___d [ ] | 7.___e ___ % | 7.___f [ ] [ ] |
| 7.___a [ ] | 7.___b [ ][ ][ ] | 7.___c [ ] | 7.___d [ ] | 7.___e ___ % | 7.___f [ ] [ ] |

03-31-93

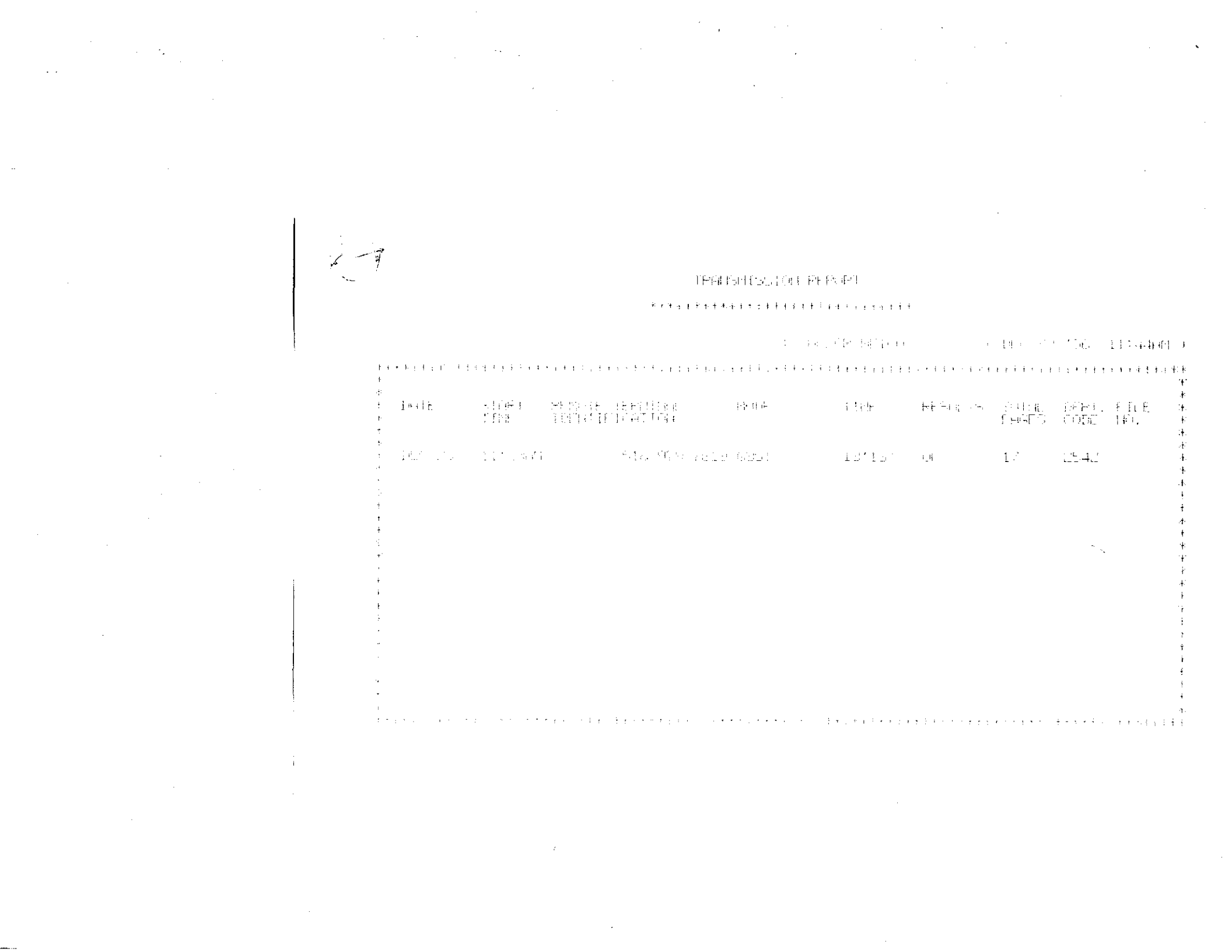
# HAZARDOUS WASTE REPORT SUBMISSION CHECKLIST

Please review the following checklist to make sure that your site's submission is complete and correct.

**Have you:**

- ✓ Included Form IC, answering questions on both the front and back of the form?
- ✓ Prepared a complete, separate and independent GM Form for each hazardous waste
  - (■) generated on site form production processes or service activities?
  - ■ from a spill cleanup or other cleanup activity?
  - ■ derived form the management of a non-hazardous waste (i.e. F006 sludge)?
- ✓ Prepared a complete, separate and independent GM Form for each hazardous waste residual generated from the on-site treatment, disposal, or recycling of wastes?
- ✓ Reported all information on 1992 shipments of hazardous waste form off site on WR Forms?
- ✓ Prepared a complete and separate PS Form for each on-site hazardous waste treatment, disposal, or recycling system?
- ✓ Double checked all EPA ID Numbers for correctness?
- ✓ Right justified all quantity entries?
- ✓ Numbered all pages correctly, including any continuation pages?
- ✓ Signed the certification statement in Section V of Form IC?
- ✓ Made a copy of the 1992 Hazardous Waste Report to retain for your records as required by New York State Regulation?

This checklist is for your own use and is not to be returned.



**SULZER METCO**

# Telefax

Sulzer Metco (US) Inc.
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone: (516) 334-1300
Fax: (516) 338-2477

Place, date: Westbury, DECEMBER 23, 1996

To: JOE SALVO
DONNELLY ENGINEERING
Fax:
979-7819

From: Constance L. Conroy
Fax: (516) 338-2336
Phone: (516) 338-2337

Total pages: 17

Copy to:

Re:

JOE,

DEPOSITION EFFICIENCY.

THANK YOU,

CONNIE.

# DIAMALLOY 3001

## Cobalt Base Superalloy Powder

**INTRODUCTION:** DIAMALLOY 3001 is a cobalt/molybdenum/chromium superalloy which combines high temperature capability, exceptional corrosion resistance, oxidation resistance to 1800°F (980°C) and excellent wear resistance. DIAMALLOY 3001 is unique in that these four performance characteristics are combined in one material.

DIAMALLOY 3001 exhibits excellent tribological performance when rubbing against itself, stainless steel, aluminum and other superalloys.

**TYPICAL APPLICATIONS:** Pump Components

Gas Turbine Components (Fretting)

Roller Bearings

Valve Shafts

Exhaust Fan Blades

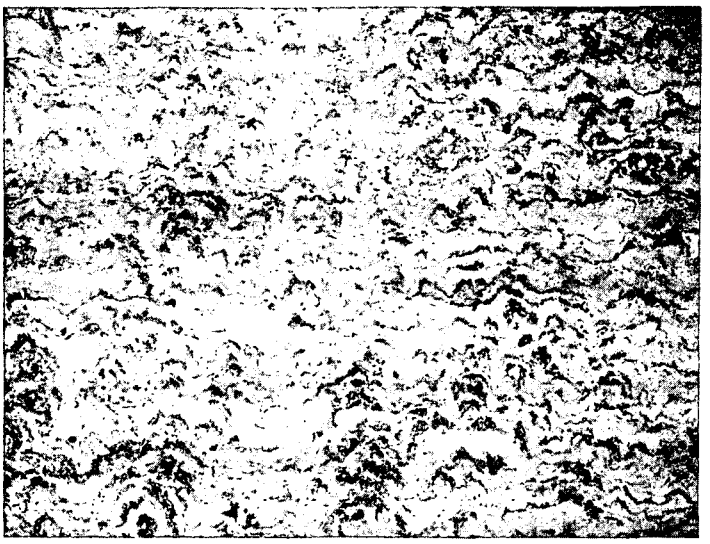
## GUN SPRAY PARAMETERS

| | | | |
|---|---|---|---|
| Injector | | #3 | |
| Shell | | A | |
| Insert | | #3 | |
| Siphon Plug | | #2 | |
| Air Cap | | #2 | |
| Gases | Oxygen | Propylene | Air |
| Pressure, psi (bar) | 150 (10.3) | 100 (6.9) | 75 (5.2) |
| Flow (FMR) | 48 | 41 | 61 |
| S.C.F.H. (S.L.P.M.) | 693 (303.5) | 180 (78.8) | 963 (421.8) |
| BTU/hr x $10^3$ (joules/hr x $10^8$) | --- | 396 (4.18) | --- |
| DJP Powder Feeder (Note 1) | | | |
| Powder Hose | | Red | |
| Carrier Gas | | Nitrogen | |
| Supply Pressure, psi (bar) | | 125 (8.6) | |
| Flow, FMR | | 60 | |
| Pick-up Shaft | | "E" | |
| Air Vibrator Setting, psi (bar) | | 20 (1.4) | |
| Spraying | | | |
| Spray Distance, inches (mm) | | 6 (150) | |
| Spray Rate, lb/hr (gm/min) (Note 2) | | 3 (23) | |
| Coverage, $ft^2$/hr/0.001" ($m^2$/hr/0.1mm) | | 63 (1.5) | |
| Powder Required, lb/$ft^2$/0.001" (kg/$m^2$/0.1mm) | | 0.048 (0.93) | |
| Deposit Efficiency (Note 3) | | 82% | |
| Thickness Limit, inches (mm) | | >0.020 (0.5) | |

Note 1: Nitrogen tank pressure should be set at 175 psi (12.1 bar)
Note 2: Adjust Feed Rate Control to set the spray rate.
Note 3: Deposit efficiencies are approximate and have been rounded off for easy calculations.

## COATING CHARACTERISTICS

DIAMALLOY 3001 coatings are dense and well bonded. The micro and macrohardness values ($DPH_{300}$600-650 and $R_c$50-55, respectively) reflect that high coating density (negligible porosity) and optimized oxide levels. The oxide levels can be tailored for specific applications by judicious adjustment of spray parameters.



**DIAMALLOY 3001 COATING (200X)**

| | |
|---|---|
| Macrohardness | $R_C$ 50-55 |
| Microhardness | $DPH_{300}$ 600-650 |
| Surface Texture | |
| As-sprayed, microinches aa (microns aa) | 200-350 (5-9) |
| As-ground, microinches aa (microns aa) | 4-6 (0.1-0.2) |
| Tensile Bond Strength, psi (MPa) | |
| Low carbon steel, C grit | 9500 (65) |
| Coating Weight, lbs/ft$^2$/0.001" (kg/m$^2$/0.1mm) | 0.039 (0.75) |

## FINISHING

Coatings of DIAMALLOY 3001 can be used in the ground or ground and lapped condition. Good finishes have been obtained by wet grinding using 60 grit silicon carbide wheels.

### CYLINDRICAL GRINDING

Wheel Speed: 5,500-6,500 SFPM (1680-1980 m/min))

Work Speed: Roughing -- 50-70 SFPM (15-20 m/min)
Finishing -- 70-100 SFPM (20-30 m/min)

Traverse: Amount of Wheel Width, Advance per Revolution of Work
Roughing -- .25" - .50" (6. - 13. mm))
Finishing - .08" - .17" (2. - 4.3 mm)

### SURFACE GRINDING

Wheel Speed: 5500-6500 SFPM (1680-1980 m/min)

Crossfeed: Roughing: -- .06" - .13" (1.5 - 3.3 mm)
Finishing: -- .02" - .03" (.5 - .8 mm)

Table Speed: 40 - 100 FPM (12. - 30. m/min)

The information provided here is believed to be accurate and reliable; however, results may vary with workpiece preparation and with thermal spray conditions. METCO warrants only that the goods are free from defects in material and workmanship when shipped to the original buyer. No other warranty is expressed or implied. METCO expressly disclaims the implied warranties or merchantability and fitness for a particular purpose. The foregoing warranty excludes goods not manufactured by METCO, although METCO may pass on the manufacturer's warranty for such goods.

METCO
PERKIN ELMER
1101 Prospect Avenue, Westbury, NY 11590 (516) 334-1300

# TECH-REPORT

METCO
a division of
PERKIN-ELMER

## METCO 15E SELF-FLUXING ALLOY POWDER

**SUPPLIES**
POWDER

Summary: METCO 15E is a self-fluxing, nickel-chromium hardfacing alloy powder. It produces coatings harder than those produced by any other METCO self-fluxing alloy, except those which contain tungsten carbide. In addition, the coatings are very dense and corrosion resistant. They resist wear by abrasive grains, hard surfaces, particle erosion and cavitation, in both low and high temperatures. METCO 15E is recommended for the most severe service requirements when used on base materials with a fairly high coefficient of thermal expansion (8 to 9 x $10^{-6}$/°F.).

METCO 15E meets, and exceeds, AMS Specification 4775A. METCO controls the chemical limits and particle sizes more tightly than the AMS specification requires. It also meets the requirements of MIL-R-17131A and API Standard 610.

As a self-fluxing alloy, METCO 15E is one of a group of METCO powders which were designed to be "fused" or re-melted in a normal atmosphere after being sprayed. They then coalesce into a dense, essentially pore-free coating.

This revision has been issued to:

1. Publish, in greater detail, the kinds of wear which coatings of METCO 15E resist.

2. Publish instructions for producing the coating of METCO 15E shown in the METCO Handbook of Coating Recommendations.

**********

METCO 15E is usually sprayed with METCO ThermoSpray equipment.

## APPLICATIONS:

METCO 15E is recommended for the following applications:

| Coating No. | Coating Function | Typical Applications |
|---|---|---|
| T15E-10 | Resist Abrasive Grains (Low Temperature) | Oil industry slush pumps, Tobacco grinding hammers |
| T15E-10 | Resist Abrasive Grains (High Temperature) | Fuel rod mandrels |

CONTINUED.....



ISSUED: 16 Dec 1971
SUPERSEDES: 23 Dec 1969

FILE: Section 1b

Metco
1101 Prospect Avenue, Westbury NY 115
(516) 334-1300

APPLICATIONS: (cont.)

| Coating No. | Coating Function | Typical Applications |
|---|---|---|
| T15E-10 | Resist Hard Surfaces (Low Temperature) | Brake drums, Thread guides |
| T15E-10 | Resist Hard Surfaces (High Temperature) | Forging tools, Hot forming dies |
| T15E-10 | Resist Fretting (Intended Motion) | Piston rings, Cylinder liners |
| T15E-10 | Resist Cavitation | Hydraulic turbine wear rings, Water turbine nozzles |
| T15E-10 | Resist Particle Erosion (Low Temperature) | Dust collectors, Dump valve plug & seat |
| T15E-10 | Resist Particle Erosion (High Temperature) 1000°F. - 1550°F. | Exhaust valves, Exhaust valve seats |

POWDER CHARACTERISTICS:

Typical Composition:

| | |
|---|---|
| Chromium | 17.0% |
| Iron | 4.0% |
| Silicon | 4.0% |
| Boron | 3.5% |
| Carbon | 1.0% |
| Nickel | Balance |

Typical Size Range: -140 +325 mesh

Melting Point: 1875°F - 1024°C

CONTINUED.....

## TYPICAL PHYSICAL PROPERTIES OF THE COATINGS:

| | COATINGS | |
|---|---|---|
| | T15E-10 | P/F |
| Texture, as-sprayed: | Fine | Fine |
| Texture, as-fused: | Smooth | -- |
| Porosity: | Essentially non-porous | -- |
| Bonding: | Metallurgical | Excellent |
| Wetting: | Good | -- |
| Macrohardness: | $R_C$62 | $R_C$50-55 |
| Plastic range: | Narrow | -- |
| Shrinkage during fusing: | 17% | -- |
| Finishing allowance: | .002" | .005" |

## FUSING:

Use a METCO Fusing Torch adjusted to produce a soft, slightly reducing flame (gas flow ratio 3 oxygen:4 acetylene).

Do not heat a small area of the coating to a high local temperature; the coating may expand rapidly and separate from the base. Preheat the work evenly from a distance of 4"-5", moving the flame back and forth over the surface, to a temperature of 600°F to 1000°F (315°C to 540°C).

After preheating, move the torch nozzle to a distance of about 1 1/2" from the work, about 1" in from the edge of the coating. Oscillate the torch slightly as the fusing point is reached. The coating will show a glassy "shine" when it fuses. Do not overheat past this stage; the coating may sag or run.

When fusing is finished let the part cool slowly. One way to do this is to bury it in vermiculite in a metal container. Fast cooling may crack the coating.

Fusing can also be done in a furnace or by induction. See Volume II of the METCO Flame Spray Handbook for information on these methods.

## FINISHING:

Coatings of METCO 15E must be ground to finished size. Recommendations of wheels, speeds, and feeds will be found in Volume II of the METCO Flame Spray Handbook.

CONTINUED.....

## SYSTEM PARAMETERS

| | THERMOSPRAY SET #1 | THERMOSPRAY SET #2 |
|---|---|---|
| SPRAY GUN | | |
| Type: | 2P | 5P |
| Nozzle: | P7 | P7-G |
| Metering Valve: | 1 | 11 |
| Air Jet Unit: | No | No |
| Air Pressure, psi-- | -- | -- |
| Cross Jets-- | -- | -- |
| Hose Reversing Fittings: | No | No |
| Vibrator: | No | No |
| GAS | | |
| Pressure: | | |
| Oxygen-- | 12 | 20 |
| Acetylene-- | 10 | 13 |
| Flow: | | |
| Oxygen-- | 24 | 34 |
| Acetylene-- | 28 | 34 |
| POWDER FEED | | |
| Flow Control Valve-clicks open: (Note 1) | 8-16 | 16-18 |
| SPRAYING (Note 2) | | |
| Spray distance--inches: | 9-10 | 7-10 |
| Spray rate - lb./hr.: | 11 | 20 (Note 3) |
| Gas Consumption - cu.ft./hr.: | | |
| Oxygen-- | 35 | 60 |
| Acetylene-- | 25 | 33 |
| Coverage - sq.ft./hr./.001": (Note 4) | 270 | 490 |
| Powder weight - lb./sq.ft./.001": (Note 4) | .041 | .041 |
| Deposit efficiency--%: (Note 5) | 95 | 95 |

NOTES:

1. Use as a starting point. Adjust as necessary to obtain spray rate shown.

2. Spray rates and deposit efficiencies shown were obtained by skilled operators with all equipment in first-class condition.

3. Spray rate can be reduced by one half by replacing the No. 11 Metering Valve with the No. 12 Metering Valve.

4. These figures are based on fused coatings.

5. Deposit efficiency figures have been rounded off for easy calculation.

## PRODUCING RECOMMENDED COATING:

| Coating No. | Instructions |
|---|---|
| T15E-10 | Surface Preparation: Any standard method except Bond Coat.<br>Spraying: Parameter Set Numbers 1 or 2.<br>Fusing: Fuse per instructions in this Technical Bulletin.<br>Finishing: Grind |

BM/pd

METCO

# TECHNICAL BULLETIN

METCO INC., 1101 PROSPECT AVE., WESTBURY, L.I., N.Y.
FLAME SPRAY EQUIPMENT AND SUPPLIES

SUPPLIES
POWDER

ISSUED: 10 April 1974
SUPERSEDES: Original
FILE: Section 1b

## METCO 43C AND METCO 43C-NS NICKEL-CHROMIUM ALLOY POWDERS

Note: METCO 43C and METCO 43C-NS are identical materials. The text of this bulletin refers only to METCO 43C. The information it contains applies equally to METCO 43C-NS.

Summary: METCO 43C is a special nickel-chromium alloy powder, designed to produce coatings which resist oxidation and corrosive gases in temperatures to 1800°F (980°C). These coatings are used as oxygen barriers under final coatings of ceramics. They are also used to resist heat and prevent the scaling of carbon and low alloy steels in hot atmospheres. Coatings of METCO 43C are readily machinable.

METCO 43C is a good material for applications where these coating functions are required. However, METCO 443 Nickel Chromium/Aluminum Composite powder is the preferred material. Coatings of METCO 443 have higher oxidation resistance, can be applied thicker, have equivalent as-sprayed surface roughness for the bond of subsequent coatings of ceramics, and machine better, with longer tool life.

METCO 43C-NS meets U.S. Navy specifications OS 8293 and OS10602. Pratt & Whitney Aircraft Corporation specification PWA 1315, General Electric Company specification B50TF40, Boeing Company specification BMS10-67 (Type 6) and General Motors Corporation Specification EMS 56760.

This revision includes the Pratt and Whitney and General Electric specifications.

**********

METCO 43C can be sprayed with either METCO ThermoSpray equipment or METCO Plasma Flame Spray equipment.

## APPLICATIONS:

METCO 43C is used to produce heat-resistant coatings and oxidation-resistant bond coatings for ceramics. When applied .008"-.012" (.2-.3mm) thick it will retard or prevent heat oxidation of carbon steels and low alloy steels in temperatures to 1800°F (980°C). When applied .004"-.006" (.1-.15mm) thick as a bond coat for a final coating of a ceramic, it will retard or prevent heat oxidation of the base material. A thickness of .001"-.002" (.03-.05mm) is adequate for bonding a ceramic coating to an oxidation-resistant base material.

CONTINUED.....

## POWDER CHARACTERISTICS:

| | |
|---|---|
| Typical composition: | Nickel 80.%<br>Chromium 20. |
| Typical size range: | -140 + 325 mesh<br>-105 + 45 microns |
| Melting point: | 2550°F 1400°C |

## TYPICAL PHYSICAL PROPERTIES OF THE COATINGS:

| | |
|---|---|
| Texture, as sprayed, microinches aa: | 400-700 |
| Finish, machined: | fair |
| ground: | good |
| Macrohardness: | $R_B$90 |
| Density, gm/cc.: | 7.1 |
| Weight, lbs./sq.ft./.001": | .037 |
| kg/sq.m./.1mm: | .71 |
| Porosity: | 14% |
| Shrink, in./in.: | .011 |
| Tensile strengh, psi: | 23,000 |
| kgf/sq.mm: | 16.2 |

## FINISHING:

Finish by machining with carbide tools or grinding. Use parameters in Vols. II or III of the METCO Flame Spray Handbook.

CONTINUED.....

## SYSTEM PARAMETERS

| | ThermoSpray | | |
|---|---|---|---|
| | Set #1 | Set #2 | Set #3 |
| **SPRAY GUN** | | | |
| Type: | 2P | 5P | 6P |
| Nozzle: | P7 | P7-G | P7A-D |
| Metering Valve: | 2 | 11 (Note 1) | - |
| **GAS** | | | |
| Pressure: | | | |
| Oxygen, psi-- | 12 | 20 | 22 |
| kgf./sq.cm.-- | .84 | 1.4 | 1.5 |
| Acetylene, psi-- | 10 | 13 | 15 |
| kgf./sq.cm.-- | .70 | .95 | 1.1 |
| Nitrogen Carrier Gas, psi-- | - | - | 55 |
| kgf./sq.cm.-- | - | - | 3.9 |
| Flow: | | | |
| Oxygen-- | 24 | 34 | 33 |
| Acetylene-- | 28 | 34 | 38 |
| Nitrogen Carrier Gas-- | - | - | 37 |
| **POWDER FEED** | | | |
| Flow Control Valve - clicks open: (Note 2) | 8-16 | 16-18 | - |
| Powder Feed Unit: | - | - | 3MP |
| Meter Wheel: | - | - | S |
| RPM: (Note 2) | - | - | 44 |
| **SPRAYING** | | | |
| Spray distance, inches: | 9-10 | 7-10 | 8 |
| mm: | 230-255 | 180-255 | 205 |
| Spray rate, lb./hr.: | 7 | 18 (Note 1) | 18 |
| kg./hr.: | 3.2 | 8.2 | 8.2 |
| Gas Consumption: | | | |
| Oxygen, cu.ft./hr.-- | 35 | 60 | 59 |
| cu.m./hr.-- | .99 | 1.7 | 1.67 |
| Acetylene, cu.ft./hr.-- | 25 | 33 | 39 |
| cu.m./hr.-- | .71 | .93 | 1.1 |
| Nitrogen, cu.ft./hr.-- | - | - | 10 |
| cu.m./hr.-- | - | - | .28 |
| Coverage, sq.ft./hr./.001": | 170 | 440 | - |
| sq.m./hr./.1mm: | 4.0 | 10.4 | - |
| Powder weight, lb./sq.ft./.001": | .041 | .041 | - |
| kg/sq.m./.1mm: | .79 | .79 | - |
| Deposit efficiency, %: (Note 3) | 90 | 90 | 90 |

NOTES:

1. Use #12 Metering Valve instead of #11 Metering Valve to reduce spray rate by 50%, if desired.
2. Use as starting point. Adjust as necessary to obtain spray rate shown.
3. Rounded off for easy calculation.

## SYSTEM PARAMETERS

### Plasma Flame Spray

| | Set #4 $N_2/H_2$ | Set #5 $Ar/H_2$ | Set #6 $N_2/H_2$ | Set #7 $Ar/H_2$ |
|---|---|---|---|---|
| SPRAY GUN | | | | |
| Type: | 2MB | 2MB | 3MB | 3MB |
| Nozzle: | E | D | G | GH |
| Powder Port: | - | - | 1 | 2 |
| 3M 275A Uni-Jet Ring: (Note 1) | No | Yes | No | Yes |
| 3M 276A Electrode Nut: | Yes | Yes | Yes | Yes |
| GAS | | | | |
| Pressure: | | | | |
| Primary, psi-- | 50 | 100 | 50 | 100 |
| kgf/sq.cm.-- | 3.5 | 7.0 | 3.5 | 7.0 |
| Secondary, psi-- | 50 | 50 | 50 | 50 |
| kgf/sq.cm.-- (Note 2) | 3.5 | 3.5 | 3.5 | 3.5 |
| Flow: | | | | |
| Primary-- | 100 | 100 | 100 | 100 |
| Secondary-- | 15 | 15 | 15 | 5 |
| POWER | | | | |
| Unit: | 2MR | 2MR | 2MR or 4MR (Series) | |
| Arc amps: | 400 | 400 | 400 | 400 |
| Arc volts: | 75-80 | 57-62 | 70-80 | 50-65 |
| POWDER FEED | | | | |
| Unit: | 2MP | 2MP | 3MP or 3MP-DUAL | |
| Type CR Speed Dial setting: (Note 3) | 80 | 80 | - | - |
| Meter wheel: | - | - | S | S |
| RPM: (Note 3) | - | - | 40 | 40 |
| Carrier gas: | Full Open | Full Open | 37 | 37 |
| SPRAYING | | | | |
| Spray distance, inches: | 4-7 | 4-7 | 4-6 | 4-6 |
| mm: | 100-180 | 100-180 | 100-150 | 100-150 |
| Spray rate, lb./hr.: | 9 | 8.5 | 19 | 19 |
| kg./hr.: | 4.1 | 3.9 | 8.6 | 8.6 |
| Coverage, sq.ft./hr./.001": | 165 | 90 | 400 | 350 |
| sq.m./hr./.1 mm: | 3.9 | 2.1 | 9.4 | 8.3 |
| Powder weight, lb./sq.ft./.001": | .055 | .095 | .048 | .055 |
| kg/sq.m./.1 mm: | 1.06 | 1.83 | .92 | 1.06 |
| Deposit efficiency, %: (Note 4) | 70 | 40 | 80 | 70 |

NOTES:

1. Install ring with the 45° internal recess facing the nut and with the jet hole toward the top of the gun, approximately 180° from the gas inlet.

2. When using argon as the primary gas, the secondary gas flow shown in the chart may be adjusted as much as ± 5 points, if necessary, to obtain voltage within the range shown, EXCEPT THAT the secondary gas flow may not be reduced to zero and hydrogen flow may not exceed 25. If the required voltage is not obtained with this preliminary gas flow adjustment, check the equipment for a worn nozzle, a worn electrode, or a gas leak between the flowmeter and the gun. If there is no gas leak and the nozzle and electrode are not badly worn, further adjustment of the secondary gas flow up to an additional ± 5 points is permissible, if this second adjustment does not result in a flow of zero or a hydrogen flow exceeding 25. If the required voltage is not then obtained, replace the worn parts.

3. Use as starting point. Adjust as necessary to obtain spray rate shown.

4. Rounded off for easy calculation.

METCO
Flame Spray Equipment and Supplies

TECHNICAL BULLETIN

METCO INC. 1101 Prospect Avenue, Westbury, L.I., N.Y. 11590

SUPPLIES
POWDERS

ISSUED: 15 Apr 82
SUPERSEDES: 22 Apr
FILE: Section 1b

# METCO 81NS - 75 CHROMIUM CARBIDE - 25 NICKEL CHROMIUM POWDER

Summary: METCO 81NS is a mixture of crystalline chromium carbide and nickel chromium powders.

It produces coatings for use in temperatures ranging from 1000°F to 1500°F (540°C to 815°C) to resist wear by abrasive grains, hard surfaces and fretting. It is also used as an abrasive coating in machine element clearance control applications, particularly in jet engines. See the METCO Technical Bulletin on "Abradable and Abrasive Coatings".

This revision has been issued to:

1. Add specification conformances to General Electric Company Rolls Royce Ltd., and Koppers Company Material Specifications.

2. Remove METCO 2M Plasma System Parameters.

3. Add METCO Type 7M Plasma System Parameters.

## COATING SELECTION

METCO 81NS can be sprayed only with METCO plasma flame spray equipment. It cannot be sprayed with standard ThermoSpray equipment.

## SPECIFICATION CONFORMANCE

METCO 81NS meets the requirements of Pratt and Whitney Aircraft Corporation Specification, PWA 1307, Rolls Royce Specification MSRR 9507/2, General Electric Company Specification B50TF137, Class B and Koppers Company Specification K-1001.

## APPLICATIONS

METCO 81NS is recommended for the following applications.

| Coating No. | Coating Function | Typical Application |
|---|---|---|
| P81-10 | Resist Abrasive Grains (High Temperature) | Fuel rod mandrel |
| P81-10 | Resist Hard Surfaces (High Temperature) | Hot forming dies |
| P81-11 | Abrasive Coatings | Jet engine rotors |
| P81-12 | Resist Fretting (High Temperature-No Intended Motion) | Turbine baffle dampeners |
| P81-13 | Resist Fretting (High Temperature-No Intended Motion) | Turbine exhaust struts |

NOTE: Coating P81-13 is intended for application where hydrogen cannot be used as the secondary gas.

## POWDER CHARACTERISTICS

| | | |
|---|---|---|
| Typical Composition: | Chromium Carbide ($Cr_3C_2$) | 75.0% |
| | Nickel | 20.0% |
| | Chromium | 5.0% |
| Typical Size Range: | -140 mesh +10 microns | |
| | -106 +10 microns | |
| Melting Point: | 2550°F (1400°C) - Nickel-Chromium Constituent | |

| TYPICAL PHYSICAL PROPERTIES OF THE COATINGS | Standard Parameters | Pratt & Whitney Parameters |
|---|---|---|
| Texture, as-sprayed, microinches aa: | 400-500 | --- |
| Finish, ground, 60 grit SiC, microinches aa: | 30-40 | --- |
| Finish, lapped, microinches aa: | 5-8 | --- |
| Macrohardness, $N_2/H_2$ | Rc39 | --- |
| $Ar/H_2$ | Rc37 | Rc32 |
| Microhardness: | $Knoop_{50}$1850 | $Knoop_{50}$1850 |
| Porosity: | Medium | Low |
| Density (g/cc): | 5.9 | 6.6 |
| Weight, lb/ft$^2$/.001": | .031 | .034 |
| kg/m$^2$/0.1mm: | .59 | .65 |

NOTE: The Pratt and Whitney Aircraft Corporation has established certain requirements for plasma flame sprayed coatings of chromium carbide. Special argon/hydrogen parameters are used to produce them. These special parameters, when used to spray METCO 81NS, lead to a severe loss of chromium carbide in the coating, lower deposit efficiency and denser, but softer, coatings than is the case when standard parameters are used.

## FINISHING

Finish by grinding with a 60 grit, green silicon carbide or diamond wheel, using standard wet grinding techniques.

Machine finishing coatings of METCO 81NS is not recommended. A very coarse finish would be expected.

## SAFETY MEASURES

Flame spraying is a completely safe process when performed in accordance with "METCO's Safety Measures". Familiarize yourself with local safety regulations before starting spraying operations. DO NOT operate your spraying equipment or use the spray material supplied before you have thoroughly read the METCO Instruction Manual.

DISREGARDING THESE INSTRUCTIONS MAY BE DANGEGOUS TO YOUR HEALTH.

- Continued -

| | SYSTEM PARAMETERS | | | Pratt & Whitney |
|---|---|---|---|---|
| | SET #1 $N_2/H_2$ | SET #2 $Ar/H_2$ | SET #3 Ar/He | SET #4 $Ar/H_2$ |
| **SPRAY GUN** | | | | |
| Type: | 3MB/7MB | 3MB/7MB | 3MB/7MB | 3MB/7MB |
| Nozzle: | G | GH | GP | GP |
| Powder Port: | 2 | 2 | 3 | 2 |
| Uni-Jet Ring: (Note 1) | N/A | 3M 275 | 3M 275 | 3M 275 |
| Insulator: (Note 2) | 7M 55 | 7M 50 | 7M 50 | 7M 50 |
| **GAS** | | | | |
| Pressure - Primary, psi: | 50 | 100 | 75 | 75 |
| bars: | 3.45 | 6.89 | 5.17 | 5.17 |
| Secondary, psi: | 50 | 50 | 55 | 50 |
| bars: | 3.45 | 3.45 | 3.79 | 3.45 |
| Flow - Primary: | 75 | 80 | 35 | 100 |
| Secondary: (Note 3) | 15 | 15 | 50 | 15 |
| **POWER** | | | | |
| Unit: (Note 4) | | | Parallel | |
| Arc Amps: | 500 | 500 | 900 | 300 |
| Arc Volts: | 74-80 | 64-70 | 40-45 | 75-80 |
| **POWDER FEED** | | | | |
| Unit: 3MP or 3MP-DUAL | | | | |
| Meter Wheel: | S | S | L | S |
| RPM: (Note 5) | 35 | 25 | 15 | 15 |
| Carrier Gas Flow: | 37 | 37 | 50 | 37 |
| **SPRAYING** (Note 7) | | | | |
| Spray Distance, inches: | 3-5 | 3-5 | 4 | 3-5 |
| mm: | 75-125 | 75-125 | 100 | 75-125 |
| Spray Rate, lb/hr: | 15 | 10 | 2.5 | 5 |
| kg/hr: | 6.8 | 4.5 | 1.1 | 2.3 |
| Coverage, $ft^3/hr/.001"$: | 310 | 193 | - | 44 |
| $m^3/hr/0.1mm$: | 7.2 | 4.5 | - | 1.0 |
| Powder Required, $lb/ft^2/.001"$: | .048 | .052 | - | .113 |
| $kg/m^2/0.1mm$: | .92 | .99 | - | 2.16 |
| Deposit Efficiency, %: (Note 6) | 65 | 60 | 30 | 30 |
| Deposition Rate, lb/hr: | 9.8 | 6 | 0.8 | 1.5 |
| kg/hr: | 4.4 | 2.7 | 0.4 | 0.7 |

NOTES:

1. With the Type 3MB Gun, use Cat. No. 3M 275 Uni-Jet Ring with the Cat. No. 3M 276 Electrode Nut. Install ring with the 45° internal recess facing the nut and with the jet hole toward the top of the gun, approximately 180° from the gas inlet.
2. With the Type 7MB Gun, use Cat. No. 7M 50 Insulator with Argon and Cat. No. 7M 55 Insulator with Nitrogen.
3. The secondary gas flow shown in the chart may be adjusted as much as ±5 points, if necessary, to obtain voltage within the range shown; EXCEPT THAT the secondary gas flow may not be reduced to zero, and hydrogen flow may not exceed 25. If the required voltage is not obtained with this preliminary gas flow adjustment, check th equipment for a worn nozzle, a worn electrode, or a gas leak between the flowmeter and the gun. If there is no gas leak, and the nozzle and electrode are not badly worn, further adjustment of the secondary gas flow, up to an additional ±5 points, is permissible, if this second adjustment does not result in a flow of zero or a hydrogen flow exceeding 25. If the required voltage is not then obtained, replace the worn parts.
4. The METCO Type 2MR, 4MR, 6MR or 7MR Power Supply Units can be used. CAUTION: Whe using the Type 6MR and 7MR units with a Type 3MB Gun, do not exceed 40KW operation
5. Use as a starting point. Adjust as necessary to obtain spray rate shown.
6. Rounded off for easy calculation.
7. Spray rates and deposit efficiencies shown were obtained by skilled operators with all equipment in first-class condition.

- Continued -

## PRODUCING RECOMMENDED COATINGS

| Coating No. | Instructions |
|---|---|
| P81-10 | Surface Preparation: Any standard method<br>Spraying: Parameter Set #1<br>Finishing: Grind |
| P81-11 | Surface Preparation: Any standard method<br>Spraying: Parameter Set #2<br>Finishing: Grind |
| P81-12 | Surface Preparation: Any standard method<br>Spraying: Parameter Set #4<br>Finishing: Grind |
| P81-13 | Surface Preparation: Any standard method<br>Spraying: Parameter Set #3<br>Finishing: Grind |

RPZ/lm

METCO
a division of
PERKIN ELMER

METCO, PERKIN-ELMER
1101 PROSPECT AVENUE
WESTBURY, NY 11590-0201
(516) 334-1300
EMERGENCY RESPONSE: CHEMTREC
INSIDE CONTINENTAL U.S. 800-424-9300
OUTSIDE CONTINENTAL U.S. 202-483-7616

# MATERIAL SAFETY DATA SHEET

Product Name: METCOSEAL ST-1 MSDS# 50-270

## SECTION I

Trade Name: THINNER

Date of Issue: September 7, 1987

Revision Date: January 18, 1988

## SECTION II COMPOSITION AND TOXICITY DATA

| Composition | CAS# | OSHA PEL | ACGIH TLV | OTHER LIMITS RECOMMENDED |
|---|---|---|---|---|
| IsoPropyl Alcohol Anhydro | 67-63-0 | 400 ppm | 400 ppm | STEL 500 ppm |
| Methyl Isobutyl Ketone | 108-10-1 | N/A | 50 ppm | STEL 75 ppm |
| DiIsoButyl Ketone | 108-83-8 | N/A | 50 ppm | STEL 75 ppm |
| Toluene | 108-88-3 | N/A | 100 ppm | STEL 150 ppm |
| | | | | |
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## SECTION III PHYSICAL DATA

| | | | |
|---|---|---|---|
| **Boiling Point:** | **180-338° F** | **Specific Gravity ($H_2O$=1):** | **N/A** |
| **Vapor Pressure (mmHg):** | **N/A** | **Melting Point:** | **N/A** |
| **Solubility in Water:** | **N/A** | **Evaporation Rate:** | **Slower than Ether.** |
| **Appearance and Odor:** | **N/A** | **Vapor Density (AIR = 1):** | **Heavier than air.** |

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

| Flash Point (Method Used): | Flammable Limits | LEL | UEL |
|---|---|---|---|
| 42° F | N/A | N/A | N/A |

**Extinguishing Media:** Use National Fire Protection Assoc. (NFPA) Class B extinguishers (carbon dioxide, dry chemical or foam) designed to exting. NFPA Class IB flammable liquid fires.

**Special Fire Fighting Procedures:** Water spray may be ineffective. Water may be used to cool closed containers to prevent pressure build up and possible autoignition or explosion. If water is used, fog nozzles are preferable.

**Unusual Fire and Explosion Hazards:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed container may explode when exposed to extreme heat. Do not apply to hot surfaces.

| SECTION V | REACTIVITY DATA | | 50-270 |
|---|---|---|---|
| Stability | Unstable | | |
| | Stable | X | |

Incompatibility (Materials to Avoid): N/A

Hazardous Decomposition Products: May produce hazardous fumes when heated to decomposition as in welding. Fumes may contain carbon monoxide and oxides of nitrogen.

| | | | |
|---|---|---|---|
| Hazardous Polymerization | May Occur | | |
| | Will Not Occur | X | |

SECTION VI HEALTH HAZARD DATA

Summary of Risks:

ISOPROPYL ALCOHOL

ANHYDRO: Low via dermal and moderate via oral and intraperitoneal route. The single LD for a human adult = about 250 ml. An irritant to the eyes. Acts as a local irritant and in high concentrations as a narcotic. It can cause corneal burns and often eye damage. It has good warning properties because it causes a mild irritation of the eyes, nose and throat, on concentration levels of 400 ppm. It may induce a mild narcosis, the effects of which are usually transient, and it is somewhat less toxic than the normal isomer, but twice as volatile. It is not considered an important toxic hazard. There is some evidence that personnel can acquire a slight tolerance to this material, and single or repeated applications of it on the skin of rats, rabbits, dogs or human beings induced no untoward effects. It acts very much like ethanol in regard to absorption, metabolism and elimination but with a stronger narcotic action. Chronic injuries due to it have been detected in animals. Workers producing isopropyl alcohol show an excess of sinus cancers and laryngeal cancers. They may all or in part be due to the by-product, isopropyl oil. Humans have ingested up to 20 ml diluted with water and noticed only a sensation of heat and slight lowering of the blood pressure. There are, however, reports of serious illness from as little as 10 ml taken internally. A food additive permitted in food for human consumption. A common air contaminant. Absorbed by skin.

(Continued on page 5).

Medical Conditions Which May be Aggravated by Contact: N/A

Primary Entry Route(s): Eyes, Skin, Respiratory System, Ingestion.

gns and Symptoms of Overexposure:

Eye Contact: Primary irritation.

Skin Contact: Primary irritation.

Inhalation: Anesthetic. Irritation of the respiratory tract or acute nervous system. Depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma.

Ingestion: N/A

First Aid:

Eye Contact: Flush immediately with copious amounts of running water for at least 15 minutes. Take to a physician for definitive medical treatment.

Skin Contact: Wash with soap and water. Remove contaminated clothing.

Inhalation: Expose to fresh air. Restore breathing. Keep warm and quiet. Notify physician.

Ingestion: Consult a physician.

## SECTION VII SPILL, LEAK AND DISPOSAL PROCEDURES

Spill/Leak Procedures: Remove all sources of ignition (flames, hot surfaces, and electrical, static or frictional sparks). Avoid breathing vapors. Ventilate area. Remove with inert absorbent and non-sparking tools.

Waste Management/Disposal: Dispose of in accordance with local, state, and federal regulations.

## SECTION VIII — SPECIAL PROTECTION INFORMATION — 50-270

Personal Protective Equipment:

Goggles: Use safety eyewear designed to protect against splash of liquids.

Gloves: Required for prolonged or repeated contact.

Respirator: See Section VI.

Other Protective Clothing or Equipment: Prevent prolonged skin contact with contaminated clothing.

Workplace Considerations:

Ventilation: Equipment designed to create an air velocity of 200 FPM.

Safety Stations: Eye Wash Station is recommended.

Other: N/A

## SECTION IX — HANDLING AND STORAGE PRECAUTIONS

Precautions to be Taken in Handling and Storage: Do not store above 120° F. Store large quantities in buildings designed for storage of NFPA Class II flammable liquids.

Other Precautions: **Do not take internally.** Containers should be grounded when pouring. Avoid free fall of liquid in excess of a few inches.

**The information contained herein is based on available data and tests and is believed to be accurate. It is presented solely for your consideration and verification since conditions of use, storage and handling may vary.**

(Continued from Section VI).

METHYL ISOBUTYL KETONE: (Hexone) A skin, eye irritant. A human inhalation irritant. High intraperitoneal; moderate oral, inhalation. Moderate via oral and inhalation routes and high irritant to eyes and mucus membrane. Narcotic in high concentrations.

DIISOBUTYL KETONE: Irritates eyes, nose, throat; headache, dizziness, dermatitis, unconsciousness.

TOLUENE: Moderate inhalation, intraperitoneal, subcutaneous, high intraperitoneal, low oral and skin. Toluene is derived from coal tar, and commercial grades usually contain small amounts of benzene as an impurity. Acute poisoning, resulting from exposures to high concentrations of the vapors, are rare with toluene. Inhalation of 200 ppm of toluene for 8 hours may cause impairment of coordination and reaction time; with higher concentrations (up to 800 ppm), these effects are increased and are observed in a shorter time. In the few cases of acute toluene poisoning reported, the effect has been that of a narcotic; the workman passing through a stage of intoxication into one of a coma. Recovery following removal from exposure has been the rule. An occasional report of chronic poisoning describes an anemia and leucopenia, with biopsy showing a bone marrow hypoplasia. These effects, however, are less common in people working with toluene and they are not as severe. At 200-500 ppm, headache, nausea, eye irritation, loss of appetite, a bad taste, lassitude, impairment of coordination and reaction time are reported, but are not usually accompanied by any laboratory or physical findings of significance. With higher concentrations, the above complaints are increased and, in addition, anemia, leucopenia and enlarged liver may be found in rare cases.

PROJECT FINAL 1999

# Environmental Data Collection
# Sulzer Corporation 1999

## Introduction

By means of this questionnaire, selected environmental data will be collected from major locations of the Sulzer Technology Corporation. The data is required for the Group 1999 Environmental Report. This environmental data collection will be repeated annually.

We ask you to kindly fill in this questionnaire as completely as possible and return it to:


Sulzer Innotec Ltd.
ECO*Systems* 1555
Mr. Stefan Erzinger
P.O. Box 65 Tel +41-(0)52-262 51 74
CH-8404 Winterthur Fax +41-(0)52-262 03 71
Switzerland E-Mail stefan.erzinger@sulzer.com


with a copy to your Group Division Environmental Officer. If you have any problems filling in the questionnaire or have remarks or suggestions for improvements, please contact Stefan Erzinger. Please find enclosed a manual with additional information on the environmental data collection, which might help you to fill in the questionnaire. References to the manual are marked with appropriate signs (⇨ M [=Manual]).

## Limitations

The following limitations apply to the data collection:

- The time-frame is the calendar year 1999.
- The system boundary is the factory area. All data in this questionnaire are related to one site of your company. If your company has more than one site, please fill in one questionnaire for each site and declare exactly, for which site the information is given.
- All resource consumption within the factory area are to be given, including internal transportation.
- **Not** included will be
  - employees and resource consumption of external subtenants in the work area
  - external transportation (delivery, product transportation, business trips, travel to work etc.)

# Regarding this questionnaire

This questionnaire for the environmental data collection 1999 is divided into the following sections:

0 Number of employees and general information

A Use of energy

B Use of water

C Waste and recycling

D Chemicals and hazardous materials

E Local environmental problems and opportunities

We would ask you to keep to the given definitions and units. Please convert all Imperial measurements and use only international metric units. A conversion chart can be found in (⇨ ▣ Appendix 5). Where this is not possible, please mark the differing data clearly.

If you cannot as yet give any information to a question, please try to give an estimate. Clearly indicate estimates as such. If an estimate is also not possible, leave the question unanswered.

Please fill in all fields shaded in grey (⇨ ▣ 4.1).

You get a hardcopy and an electronic version by e-mail (Word97, Windows95) of this questionnaire. Please send back the filled in questionnaire by e-mail and also as a signed hardcopy.

**Thank you for your co-operation.**

The environmental data collection is an important part of the communication of environmental information within the Sulzer Corporation. It is the base for future developments of environmental affairs within Sulzer.

Date:

Signature of Environmental Officer:

# 0 Number of employees and general information

## 1 Company and site

| | |
|---|---|
| Company name (incl. official abbreviation) | Sulzer Metco (US), Inc. (SMUS) |
| Factory (incl. official abbreviation) | Prospect Avenue facility (Westbury, NY) |
| Corporate Group | Winterthur |
| Product Division | Sulzer Metco |
| Size of factory area ($m^2$) | 14678 |
| of that: sealed[1] ($m^2$) | 14678 |
| Are there any external subtenants present on your site? | ☐ Yes ☐ No X |

If yes, please make sure that these subtenants are not included in the data given in this questionnaire.

| | |
|---|---|
| Which currency is used for costs in chapters A - C? | U.S. Dollars |

## 2 Number of employees

| | |
|---|---|
| Number of employees on 31.12.1998[2] | 221 |
| Number of employees on 31.12.1999[2] | 221 |
| Average number of employees 1999[3] | 221 |
| Number of external staff on 31.12.1998[4] | 8 |
| Number of external staff on 31.12.1999[4] | 8 |

The number of employees is a very important measure, as all data will be evaluated according to the number of employees („per-capita-use"). Please make sure that all information given in sections A to E correspond with the number of employees given below (⇨ M 5.1).

[1] Areas with buildings or watertight surface.

[2] Full-time and part time positions summarized according to line 300 of the general summary 5.1 of finance and accounting (⇨ M 5.1).

[3] Average number of employees according to line 304 of the general summary 5.1 of finance and accounting (⇨ M 5.1).

[4] External staff = Co-workers, that do not have a contract with your company, but nevertheless work permanently at your site, e.g. temporary staff, contractors (security guards, cleaning personal and others; ⇨ M 5.1).

## 3 Contact person

| | | |
|---|---|---|
| Name, First name | | Michael S. Lydon |
| Function / Dept. Nr. | | Environment, Health & Safety Specialist |
| Telephone / Fax | | Tel. 516-338-2337 Fax 516-338-2336 |
| E-Mail | | Michael.lydon@sulzer.com |
| Postal address | Street | 1101 Prospect Avenue |
| | Post code City | Westbury, New York 11590 |
| | Country | United States |

## 4 Business activities at your site

Please describe briefly the most important activities carried out in the factory (products, and the processes and procedures used for their manufacture, sales, service, development, etc.).

If you already filled in this questionnaire last year, please describe the changes implemented in your factory in 1999.

Last year's report (1998) combined the data from Duffy Avenue facility and the Prospect Avenue facility. In 1999, a complete renovation was conducted on the Prospect Avenue facility. The Duffy Avenue facility was closed and was integrated into the Prospect Avenue facility. As a result of this renovation and integration, the 1999 data will reflect a disparity in data from the 1998 report.

## 5 Changes in the Environmental Data Collection at your site

Have there been any changes since 1998 in the way you collect environmental data in your factory (e.g. system boundaries, definitions, limitations)?
Complete this only if you already recorded data in 1998.

☐ No X

☐ Yes: What?

# A Use of Energy

**1 Please indicate the energy use of your factory in 1999 and the costs caused (⇨ M 5.2).**

Please indicate all data in international metric units. A conversion chart (Imperial ⇨ metric units) can be found in (⇨ M Appendix 5).

| Energy source | | | | Quantity | | Cost |
|---|---|---|---|---|---|---|
| **I Electricity** | | | | | | |
| Grid electricity | 3,135,702 | | | | kWh[5] | $378,185 |
| Electricity from own production | | | | N/A | kWh | |
| - Hydraulic (hydro power) | | | | N/A | kWh | |
| - Photovoltaic | | | | N/A | kWh | |
| - ..... | | | | N/A | kWh | |
| - Co-generation | | | | | kWh | |
| Energy source: ❑ Gas ❑ Diesel ❑ | | | GJ[6] | | | |
| **Total Electricity** | **3,135,702** | | | | **kWh** | **$378,185** |
| **II Gas** (incl. gas for co-generation, where applicable) | | | | | | |
| Natural gas (1 kg ≅ 1.23 Nm³) | Nm³[7] | x 0.0364 GJ/Nm³ | = | 1194 | GJ[8] | $48,571 |
| Propane[9] | t | x 46.4 GJ/t | = | 17,075 | GJ | 2,977 |
| Butane[10] | t | x 45.7 GJ/t | = | N/A | GJ | N/A |
| **III Fuel oils** | | | | | | |
| Fuel oil, extra-light (1 l ≅ 0.84 kg) | t | x 42.7 GJ/t | = | N/A | GJ | N/A |
| Fuel oil, medium (1 l ≅ 0.92 kg) | t | x 41.8 GJ/t | = | N/A | GJ | N/A |
| Fuel oil, heavy (1 l ≅ 0.98 kg) | t | x 40.4 GJ/t | = | N/A | GJ | N/A |
| **IV Fuels**[11] | | | | | | |
| Diesel (1 l ≅ 0.84 kg) | t | x 42.7 GJ/t | = | 101 | GJ | 1,140 |
| Petrol/Gasoline (1 l ≅ 0.75 kg) | t | x 42.4 GJ/t | = | 2.3 | GJ | 30 |

[5] kWh = Kilowatt hour (1000 kWh ≅ 3.6 GJ and 1 GJ ≅ 278 kWh)

[6] This amount will not be included to „Total Electricity"

[7] Nm³ = Standard cubic meter

[8] GJ = Gigajoule = $10^9$ Joule; 1 GJ = 1000 MJ (Megajoule); 1000 GJ = 1 TJ (Terajoule)

[9] 1 m³ (liquid) ≅ 0.51 t or 1 Nm³ (gaseous) ≅ 2.02 kg

[10] 1 m³ (liquid) ≅ 0.58 t or 1 Nm³ (gaseous) ≅ 2.7 kg

[11] Average consumption: Automobile: 100 km ≅ 10 l petrol/gasoline or diesel; Goods vehicle: 100 km ≅ 30 l diesel.

Continuation

| Energy source | | | | Quantity | | Cost |
|---|---|---|---|---|---|---|
| **V Coal** | | | | | | |
| Hard coal | ..... t | x 29.3 GJ/t | = | N/A | GJ | N/A |
| Brown coal | ..... t | x 12 GJ/t[12] | = | N/A | GJ | N/A |
| Coke | ..... t | x 29 GJ/t | = | N/A | GJ | N/A |
| **VI District heating (DH)** | | | | | | |
| External DH | Share of Waste[13]: ..... %, Gas ..... %, Oil ..... %, others ..... % | | | N/A | GJ | |
| Heat from internal co-generation | ..... GJ[14] | | | | | |
| **VII Various** | | | | | | |
| Wood (1 $m^3 \cong$ 0.6 t) | ..... t | x 15 GJ/t | = | N/A | GJ | N/A |
| Geothermal energy | | | | N/A | GJ | N/A |
| ..... | | x | = | N/A | GJ | N/A |
| **Total of fossil energy sources and others (Sum II - VII)** | | | | **18,269** | **GJ** | **$51,548** |

## 2 Compressed air

Do you buy compressed air from an external supplier?

☐ Yes X Quantity used: 152 ..... $Nm^3$ Pressure: ..... bar

☐ No If you produce compressed air yourself, please give the energy used in the table above.

## 3 Data completeness

Does your energy data include all energy used for heating, air-conditioning, ventilation, cooling, internal transportation, processes, compressed air generation, office equipment, etc?

☐ Yes X

☐ No, missing are: .....

## 4 Changes since 1998 (fill in only if data recorded already in 1998)

How has the **absolute** energy consumption changed since 1998?

☐ No significant changes

☐ Significant decrease, possible reasons are: .....

☐ Significant increase, possible reasons are: Added LPG Manifold system, building renovation, and integration.

[12] The energy content of brown coal varies between 8 and 15 GJ/t.

[13] District heating from waste incineration

[14] This amount will not be included to „Total of fossil energy sources and others"

# B Water usage

**1 Please indicate how much water was used in your factory during the last year, and what costs arose.**

| | Quantity | | Costs[15] |
|---|---|---|---|
| Drinking water (from public supply or own sources) | 17.702 | $m^3$ | $4.677 |
| Process water[16] (from public supply or own sources) | N/A | $m^3$ | N/A |
| Surface water (e.g. river water for cooling) | N/A | $m^3$ | N/A |
| Other[17]: | N/A | $m^3$ | N/A |
| **Total** | **17.702** | **$m^3$** | **$4.677** |

**2 Discharge**

Is all water discharged to a sewer system and a waste water treatment plant?

❑ Yes X

❑ No, ..... $m^3$ of unpolluted water are discharged to a lake/river

..... $m^3$ are used for irrigation

..... $m^3$

**3 Data completeness**

Does your water data include all water consumption for processes, cooling, irrigation, sanitary facilities etc. in your facility?

❑ Yes X

❑ No, missing are: .....

**4 Changes since 1998** (fill in only if data recorded already in 1998)

How has the **absolute** water consumption changed since 1998?

❑ No significant changes

❑ Significant decrease, possible reasons are: Duffy facility closed 6-30-99. Prospect renovation, integration.

❑ Significant increase, possible reasons are:

[15]Costs for water supply and sewage charges

[16] Process water = water of inferior quality (not drinking water)

[17]E.g., collection of rain water for sanitary water etc.

# C Waste and Recycling

**1 Please indicate which quantities of waste arose in your factory in 1999, in which ways this waste was disposed of, which quantities of waste materials were recycled and which costs arose thereby.**
**(Please give all quantities in tons - and not in cubic meters)**

| | | Quantity | | Cost/Yield[18] |
|---|---|---|---|---|
| **I Wastes**[19] | | | | |
| Wastes (excluding hazardous wastes) **total** | | 136.09 | t | $46,981 |
| of that: | wastes to landfills | 126.78 | t | $42,631 |
| | wastes to incinerators | 8.96 | t | $4,140 |
| | others[20]: Physical or chemical treatment | 0.35 | t | $210 |
| Hazardous wastes[21] **total** | | 4.91 | t | $8,012 |
| of that: | Hazardous wastes to landfills | 1.70 | t | $3,625 |
| | Hazardous wastes to incinerators | 3.20 | t | $4,242 |
| | others: Physical or chemical treatment | 0.01 | t | $145 |
| **II Recycling**[22, 23] | | | | |
| Recycled materials, **total** | | 8.07 | t | $-634 (COST) |
| of that: | Metals | 2.84 | t | $10,500 (YIELD) |
| | Paper, cardboard | 1.07 | t | $550 (COST) |
| | Hazardous wastes | 4.16 | t | $10,584 (COST) |
| | Plastics | | t | |
| | Wood | | t | |
| | Glass | | t | |
| | Waste electrical and electronic equipment | | t | |
| | others: | | t | |

**2 Data completeness**

Does your data include all waste, hazardous waste and recycled materials from production and office?

☐ Yes X

☐ No, missing are:

[18] Please indicate clearly whether the amounts given refer to costs or to yields (e.g., from metal recycling). Data in local currency.

[19] Waste quantities not including recycled materials and construction and demolition debris (C+D).

[20] E.g. waste to sanitary sewer systems.

[21] Hazardous waste is all waste that has to be treated as hazardous waste according to local legislation.

[22] By recycling, we mean those processes in which the waste is processed to produce a product similar to the original product. The thermal utilization of the waste (incineration, pyrolysis, gasification) is thereby *not* considered to be recycling.

[23] The quantity of the recycled materials (II) is *not* included in the waste quantities (I).

**3 Changes since 1998** (fill in only if data recorded already in 1998)

How have the **absolute** quantities of waste, hazardous waste and recycling changed since 1998?

| | |
|---|---|
| ❑ No significant changes | |
| ❑ Significant **de**crease, possible reasons are: | |
| ❑ Significant **in**crease, possible reasons are: | The closure of the Duffy Avenue facility and renovation of the Prospect Avenue facility resulted in increased waste disposal. These numbers do not include construction and demolition debris (C+D). |

**4 Disposal companies**

Do you check the quality and environmental skills of your hazardous waste disposal companies (especially their legal compliance (e.g. permissions))?

❑ Yes, all hazardous waste disposal companies are checked periodically. X

❑ No, so far no or not all hazardous waste disposal companies have been checked.

# D Chemicals and hazardous materials

In the engineering industry, hazardous materials are used in particular as solvents, cleansing agents, lubricating and hydraulic oils, cooling agents, alkalis, acids and heavy metals. Main applications are metal treatment (de-greasing, cleaning etc.) and surface refining (stripping agents, pickling agents, colors, paints, galvanic chemicals, etc.). Additional information can be found in the manual (⇨ M 5.3 and M A.2 - 4).

**1 Are CFC or other ozone-depleting substances (e.g. HCFC, HBFC, halons) used in your factory, or are such substances contained in stationary equipment?**

A list of ozone depleting substances is given in (⇨ M A.2).

❑ No CFC, HCFC, HBFC, halons or other ozone depleting substances present

❑ Yes, used as process material (solvents, detergents, foaming agents etc.)
Which?

Please report the quantities used in question D7 (table 7.1).

❑ Yes, contained in stationary equipment as refrigerant, fire protection agent, etc.
Which? R-22, Halon 1301

Please report the quantities used for refill in question D7 (table 7.1).

According to the Montreal Protocol, the usage of CFC, HBFC and halons is forbidden or strongly limited in most countries. HCFC are being reduced since 1996, phase out is planned for 2020.

**2 Are greenhouse gases (e.g. $CO_2$, nitrous oxide, HFC) used in your factory, or are such substances contained in stationary equipment (⇨ M 5.3.2)?**

A list of greenhouse gases is given in (⇨ M A.3).

❑ No greenhouse gases present X

❑ Yes, used as process material (solvents, detergents, foaming agents etc.)
Which?

Please report the quantities used in question D7 (table 7.2).

❑ Yes, contained in stationary equipment as refrigerant, fire protection agent, etc.
Which? R-134a

Please report the quantities used in question D7 (table 7.2).

**3 Are PCBs (Polychlorinated Biphenyles) used in your factory, or are such substances contained in stationary equipment?**

☐ No PCB present X

☐ Yes, used as process material (e.g., softeners)

☐ Yes, contained in stationary equipment (such as transformers) as cooling or insulating agent

Are there any regulations? Is there a management plan for eliminating PCBs?

In most countries, the usage of PCB is forbidden.

**4 Does your facility (buildings or equipment) contain asbestos (e.g., insulation, asbestos cement, sealants, filters)?**

☐ No asbestos present X

☐ Yes. Is there a need to correct the situation? Are there any regulations? Do you have an Asbestos Management Plan in place?

In most countries, the usage of asbestos is forbidden.

**5 Are you governed by EPCRA (Emergency Planning and Community Right to Know Act) – regulations? (Fill in only if based in the US).**

☐ Yes ⇨ Question 6 X

☐ No ⇨ Question 7

**6 As part of the EPCRA requirements, do you file a Form R 313 (Toxic Release Inventory TRI Report)? (Fill in only if based in the US).**

Facilities that have 10 or more employees, is in Standard Industrial Classification code 20 through 39, manufactures or processes 25'000 or more pounds (≅ 9000 kg) of a listed chemical (TRI chemicals), or otherwise uses 10'000 pounds (≅ 4500 kg) of a listed chemical, are required to file this report.

☐ No, we do not file Form R 313

☐ Yes, we file Form R 313. Please list those chemicals reported in Form 313 (or add a separate list):

Nickel and Chromium Compounds, Aluminum, Copper, Cobalt powder, and Sulfuric Acid.

Who is responsible for filing this report? Michael S. Lydon, EH&S Specialist

Please report the quantities used in question D8 (table 8.1-8.4).

## 7 Usage, quantities of waste and air emissions

Please indicate in the tables on the following pages all chemicals and hazardous materials used in your factory (⇨ M 5.3 and M 5.3.1 - 5.3.4).

### Table 7.1: Ozone depleting substances

Of all ozone depleting substances used in your factory, please give the exact amount of the substances used, the amount for waste and recycling, the amount emitted into the air, and the type of application. A list of ozone depleting substances is given in (⇨ M A.2).

### Table 7.2: Greenhouse gases

Of all greenhouse gases used in your factory, please give the exact amount of the substances used, the amount for waste and recycling, the amount emitted into the air, and the type of application. A list of greenhouse gases is given in (⇨ M A.3).

### Table 7.3: Volatile organic compounds (VOC)

Of all VOC used in your factory with annual usage of more than 50 kg (each), please give the exact amount of the substances used, the amount for waste and recycling, the amount emitted into the air, and the type of application. A list of VOC is given in (⇨ M A.4).

### Table 7.4: Acids, alkalis, heavy metals, mineral oils, coolants and others

Please give for all other chemicals and hazardous substances with annual usage of more than 100 kg (each) the annual usage and the type of application (no waste and emission data required).

## 8 Data completeness

Does your data include all chemicals and hazardous materials used in your factory during 1999?

❑ Yes X

❑ No, missing are:

## 9 Changes since 1998 (fill in only if data recorded already in 1998)

How has the **absolute** usage of chemicals and hazardous substances changed since 1998?

❑ No significant changes X

❑ Significant decrease, possible reasons are:

❑ Significant increase, possible reasons are:

## 7.1 Ozone depleting substances

| Chemical name | Annual usage[24] [kg/y] | Waste [kg/y] | Recycling [kg/y] | Emissions to air [kg/y] or [% of usage] | Application / remarks |
|---|---|---|---|---|---|
| Example: R113 | 500 | 400 | 0 | 100 | Degreasing bath |
| R11 Trichlorofluoromethane (CFC) | | | | | |
| R12 Dichlorodifluoromethane (CFC) | | | | | |
| R113 Trichlorotrifluoroethane (CFC) | | | | | |
| R22 Chlorodifluoromethane (HCFC) | 23 | 0 | 23 | 0 | Stationary HVAC Unit |
| Tetra Carbon tetrachloride | | | | | |
| 1,1,1-Trichloroethane | | | | | |
| Halon1211 Bromochlorodifluormethane | | | | | |
| Halon1301 Bromotrifluoromethane | 0 | 0 | 0 | 0 | Halon fire suppression unit |
| others: | | | | | |
| others: | | | | | |
| others: | | | | | |
| others: | | | | | |
| others: | | | | | |
| others: | | | | | |
| others: | | | | | |
| others: | | | | | |

If necessary, please copy and enclose additional page(s).

[24] [kg/y] = kilogram per year

A list of ozone depleting substances is given in (⇨ M A.2).

P2SUL000849

## 7.2 Greenhouse gases[25]

| Chemical name | Annual usage[26] [kg/y] | Waste [kg/y] | Recycling [kg/y] | Emissions to air [kg/y] or [% of usage] | Application / remarks |
|---|---|---|---|---|---|
| **Carbon dioxide** ($CO_2$)[25] | | | | | |
| **Methane** ($CH_4$)[25] | | | | | |
| **Nitrous oxide** ($N_2O$)[25] | | | | | |
| **Hydrofluorocarbons** (HFC) | | | | | |
| R23 Trifluoromethane ($CHF_3$) | | | | | |
| R125 Pentafluoroethane | | | | | |
| R134a 1,1,2,2-Tetrafluoroethane | | | | | |
| R152a 1,1-Difluoroethane | | | | | |
| others: | | | | | |
| others: | | | | | |
| **Perfluorocarbons** (PFC) | | | | | |
| Perfluoromethane ($CF_4$) | | | | | |
| Perfluoroethane ($C_2F_6$) | | | | | |
| Perfluorohexane ("Vertrel 245", $C_6F_{14}$) | | | | | |
| others: | | | | | |
| **Sulphurhexafluoride** ($SF_6$) | | | | | |

If necessary, please copy and enclose additional page(s).

[25] Most greenhouse gas emissions result from energy consumption (burning of fossil energy). These emissions should **not** be given here, they will be calculated according to data given in chapter A (⇨ M 5.3.2).

[26] [kg/y] = kilogram per year

A list of greenhouse gases is given in (⇨ ▣ A.3).

P2SUL000851

## 7.3 Volatile organic compounds (VOC) [27, 28]

### a) Pure substances

| Chemical name | Annual usage[29] [kg/y] | Waste [kg/y] | Recycling [kg/y] | Emissions to air [kg/y] or [% of usage] | Application / remarks |
|---|---|---|---|---|---|
| Example: Acetone | 2500 | 500 | 1000 | 1000 | Open degreasing bath |
| Per Tetrachloroethylene | | | | | |
| Tri Trichloroethylene | | | | | |
| Dichloromethane | | | | | |
| Acetone | 94 | 0 | 0 | 100% | Solvent for Assembly Department |
| Ethanol | | | | | |
| Methanol | | | | | |
| Toluene | 15 | 0 | 0 | 100% | Solvent for Machine Shop |
| Xylene | | | | | |
| Benzene | | | | | |
| others: White Spirits | 5650 | 1400 | 4230 | 5% | Parts Washers |
| others: LPG Fuel | 1236 | 0 | 0 | 0 | Forklift Fuel, thermal spray fuel |
| others: MEK | 15 | 0 | 0 | 100% | Solvent for Machine Shop |
| others: | | | | | |
| others: | | | | | |

If necessary, please copy and enclose additional page(s).

[27] VOC are organic compounds with boiling point ≤ 240 °C (at 1013 mbar) or vapor pressure ≥ 0.1 mbar (at 20 °C). All common solvents (alcohols, ethers, ketons) are VOC (⇨M A.4).

[28] If not already given in table 8.1 or 8.2.

[29] [kg/y] = kilogram per year

A list of VOC is given in (⇨ M A.4).

P2SUL000853

**b) VOC in colors, lacquers, resins and other mixtures[30]**

| **Mixture** | **Annual usage** (of mixture) [kg/y][31] | **VOC-content** [%] | **Solvent** (Substance name) | **Waste** (of mixture) [kg/y] | **Recycling** (of mixture) [kg/y] | **VOC-emissions to air** [kg/y] or [% of usage] | **Application / remarks** |
|---|---|---|---|---|---|---|---|
| Example: Color | 2500 kg | 50% | Styrol | 500 kg | 0 | 1000 kg | |
| Colors | | | | | | | |
| Lacquers | | | | | | | |
| Resins | | | | | | | |
| Thinner | | | | | | | |
| Cellulose thinner | | | | | | | |
| others: | | | | | | | |
| others: | | | | | | | |
| others: | | | | | | | |
| others: | | | | | | | |
| others: | | | | | | | |
| others: | | | | | | | |
| others: | | | | | | | |
| others: | | | | | | | |
| others: | | | | | | | |

If necessary, please copy and enclose additional page(s).

A list of VOC is given in (⇨ M A.4).

[30] If not yet given in table 7.1 - 7.3

[31] [kg/a] = Kilogramm pro Jahr

## 7.4 Other substances: acids, alkalis, heavy metals, mineral oils, cutting fluids and others

| Substance | Annual usage [kg/y][32] | Application / remarks |
|---|---|---|
| Hydrochloric acid (=hydrogen chioride) | | |
| Sulfuric acid | 20 | Met Lab |
| Sodium hydroxide | | |
| Lubricating and hydraulic oils | | |
| Cutting fluids (concentrate) | | |
| others: Chromium Powder | 450 | Applications Development |
| others: Nickel Powder | 450 | Applications Development |
| others: Mineral Oil | 7250 | Cutting oil used in Machine Shop |
| others: Valinite Water Soluble Cutting Oil | 550 | Cutting oil used in Machine Shop |
| others: Hydroflouric Acid | 20 | Met Lab |
| others: Nitric Acid | 5 | Met Lab |
| others: Hydrochloric Acid | 5 | Met Lab |
| others: Lactic Acid | 5 | Met Lab |
| others: Phosphoric Acid | 20 | Met Lab |
| others: Acetic Acid | 5 | Met Lab |
| others: | | |
| others: | | |
| others: | | |

If necessary, please copy and enclose additional page(s).

[32] [kg/y] = kilogram per year

# E Local environmental problems and opportunities

**1 In your opinion, are there any environmental protection matters in your facility, that might be not compliant with legal requirements if examined in detail?**

- ☐ Yes
- ☐ No X

If Yes, please briefly state the problem, and the planned corrective action.

**2 Is an Environmental Management System (EMS) implemented in your company?**

- ☐ Yes ☐ ISO 14'001 ☐ EMAS ☐ since:
- ☐ No
- ☐ Implementation planned X ☐ ISO 14'001 ☐ EMAS ☐ until: FY 2001

**3 Is there an Environmental Policy for your company?**

- ☐ Yes, in force since: 1997
- ☐ No
- ☐ Planned for:

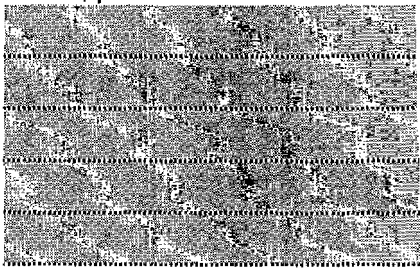
**4 Do you prepare an annual internal environmental report?**

- ☐ Yes, for senior management (Management Review) X
- ☐ Yes, for personal use
- ☐ No

**5 Are there presently any envi**
**improved proactively? (That**

☐ Yes
☐ No X

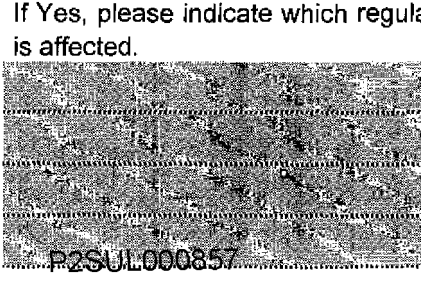
If Yes, please describe these matte



**6 Is there any equipment in yo**
**tion?**

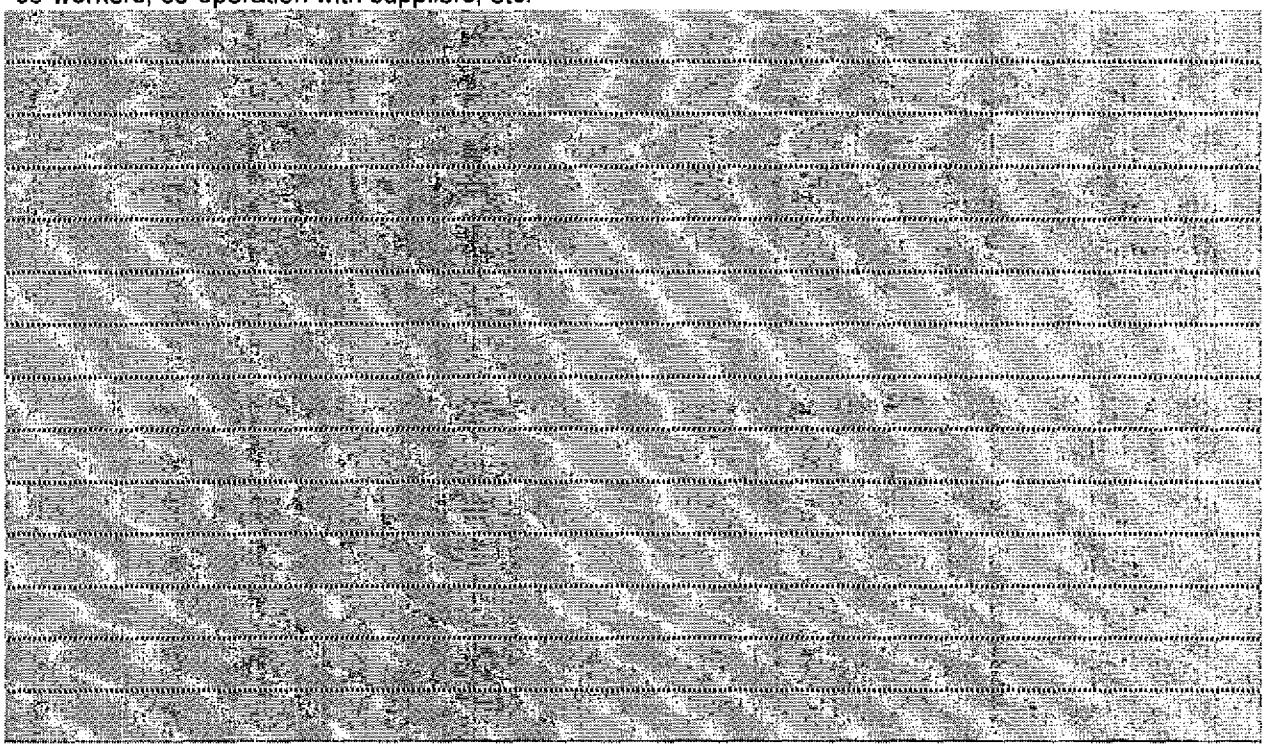
☐ Yes
☐ No X

If Yes, please indicate which regula
is affected.

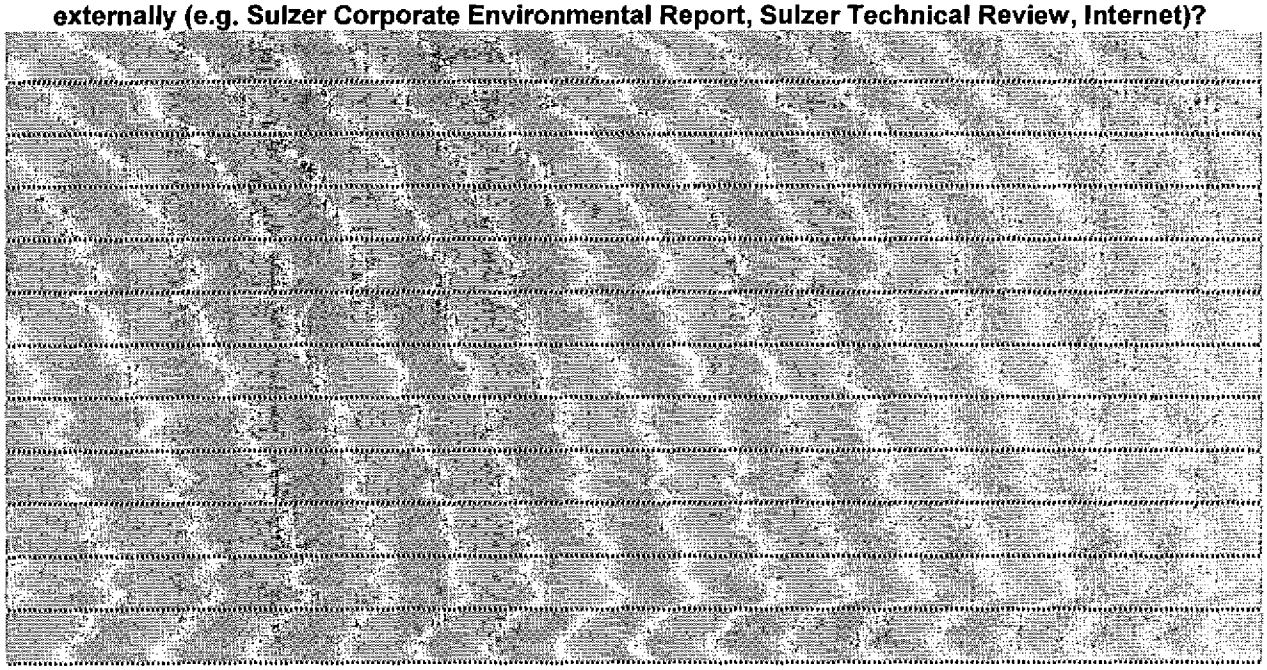


**8 Which measures, in your opinion, could be taken pro-actively to improve environmental and economical performance?**

Examples could be: integration of environmental aspects in company strategy and in research and development, ecologically sounder products or services, sector agreements, waste technology, regional or sectorial amalgamations in the disposal of waste, alternative energy systems, change of behavior of co-workers, co-operation with suppliers, etc.



**9 Have there been any environmentally relevant projects (e.g. product developments, resource minimization) carried out in 1998/99 that should in your opinion be communicated internally or externally (e.g. Sulzer Corporate Environmental Report, Sulzer Technical Review, Internet)?**



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
REGION II
EDISON, NEW JERSEY 08837

**SEP 17 2003**

CERTIFIED MAIL-
RETURN RECEIPT REQUESTED

Mr. Peter DiPietrantonio
Environmental Health & Safety Specialist
Sulzer Metco (US) Inc.
1101 Prospect Avenue
Westbury, New York 11590

Re: In the Matter of **Sulzer Metco (US) Inc.**
Docket No. EPCRA-02-2003-4230

Dear Mr. DiPietrantonio:

Enclosed for your review is an Administrative Consent Agreement and Final Order intended to resolve the above-referenced proceeding under Title III of the Superfund Amendments and Reauthorization Act, 42 U.S.C. §1101 et seq. [also known as the Emergency Planning and Community Right-to-Know Act of 1986].

Please read and have the company sign the original provided, and return the signed document to my attention for further processing within ten (10) days of receipt of this package. My mailing address is: United States Environmental Protection Agency - Region 2, 2890 Woodbridge Ave., Bldg. 10 (MS-105), Edison, New Jersey 08837. A fully executed copy of this document will be mailed to you upon issuance. Please call me at (732) 906-6815, if you have any questions.

Sincerely yours,

Mary Ann Kowalski, M.S., M.P.H.
Toxics Section
Pesticides and Toxic Substances Branch

Enclosures

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION 2**

| | | |
|---|---|---|
| In the Matter of | : | **CONSENT AGREEMENT AND FINAL ORDER** |
| **SULZER METCO (US) INC.**<br>**Sulzer Metco (US) Inc. - Hicksville, NY Plant**<br>**Sulzer Metco (US) Inc. - Westbury, NY Plant** | : | |
| Respondent. | : | **DOCKET NUMBER EPCRA-02-2003-4230** |
| Proceeding under Section 325(c) of Title III of the Superfund Amendments and Reauthorization Act | : | |

## PRELIMINARY STATEMENT

This administrative proceeding for the assessment of a civil penalty was instituted pursuant to Section 325(c) of Title III of the Superfund Amendments and Reauthorization Act, 42 U.S.C. §11001 et seq. [also known as the Emergency Planning and Community Right-to-Know Act of 1986 (hereinafter, "EPCRA")]: The "Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties, Etc." (40 C.F.R. Part 22 (July 1, 2000)), provide in 40 C.F.R. §22.13(b) that when the parties agree to settle one or more causes of action before the filing of an Administrative Complaint, a proceeding may be simultaneously commenced and concluded by the issuance of a Consent Agreement and Final Order pursuant to 40 C.F.R. §§22.18(b)(2) and (3).

The Director of the Division of Enforcement and Compliance Assistance of the United States Environmental Protection Agency, Region 2 ("EPA or Complainant"), alleges that Sulzer Metco (US) Inc. facilities located at 220 Miller Place, Hicksville, New York 11801 and at 1101 Prospect Avenue, Westbury, New York 11590 violated the requirements of Section 313 of EPCRA (42 U.S.C. §11023) and the regulations promulgated pursuant to that Section, codified at 40 C.F.R. Part 372.

Under Section 313 of EPCRA and 40 C.F.R. §372.22, owners or operators of a facility subject to the requirements of Section 313(b) are required to submit annually, no later than July 1 of each year, a Toxic Chemical Release Inventory Reporting Form R, EPA Form 9350-1 (hereinafter, "Form R"), for each toxic chemical listed under 40 C.F.R. §372.65 that was manufactured, imported, processed, or otherwise used during the preceding calendar year in quantities exceeding the established toxic chemical thresholds. The completed and correct Form R is required to be submitted to the Administrator of the EPA and to the State in which the subject facility is located.

As an alternative to the Form R requirements set forth above, pursuant to Section 313(f)(2) of EPCRA (42 U.S.C. §11023(f)(2)) and 40 C.F.R. §372.27, owners or operators of a facility subject to the requirements of Section 313(b), with respect to the manufacture, process or otherwise use of a toxic chemical, may apply an alternate threshold of one million (1,000,000) pounds per year to that chemical if the conditions set forth in 40 C.F.R. §372.27(a) are met. Pursuant to 40 C.F.R. §372.27(b), if the aforementioned alternate threshold for a specific toxic chemical is applicable, such owners or operators, in lieu of filing a Form R therefore, may submit "EPA Toxic Chemical Release Inventory Form A" (EPA Form 9350-2) (formerly the "Certification Statement"; see 59 Fed. Reg. 61488; November 30, 1994).

EPA and Sulzer Metco (US) Inc. (Hicksville and Westbury Plants) (hereinafter "Sulzer Metco (US) Inc.") agree that settling this matter by entering into this Consent Agreement and Final Order ("CAFO") pursuant to 40 C.F.R. §22.13(b) and 40 C.F.R. §22.18(b)(2) and (3), is an appropriate means of resolving this case without further litigation. To that end, the parties conducted an informal settlement conference over the telephone on July 24, 2003. This CAFO is being issued pursuant to said provisions of 40 C.F.R. Part 22. No formal or adjudicated Findings of Fact or Conclusions of Law have been made. The following constitute Complainant's Findings of Fact and Conclusions of Law based upon information EPA had obtained through July 24, 2003.

## FINDINGS OF FACT
## AND CONCLUSIONS OF LAW

1. Respondent is Sulzer Metco (US) Inc.

2. At all times relevant hereto, Respondent has maintained facilities located at 220 Miller Place, Hicksville, New York 11801 and at 1101 Prospect Avenue, Westbury, New York 11590 which are the subjects of this Consent Agreement and Final Order. (hereinafter, "Respondent's facility").

3. Respondent is a "person" within the meaning of Section 329(7) of EPCRA (42 U.S.C. §11049(7)).

4. Respondent is an owner of a "facility" as that term is defined by Section 329(4) of EPCRA (42 U.S.C. §11049(4)) and by 40 C.F.R. §372.3.

5. Respondent is an operator of a "facility" as that term is defined by Section 329(4) of EPCRA (42 U.S.C. §11049(4)) and by 40 C.F.R. §372.3.

6. Each of Respondent's facilities has 10 or more "full time employees" as that term is defined by 40 C.F.R. §372.3.

7. Respondent's facility located in Hicksville, New York is in Standard Industrial Classification Code 3499.

8. Respondent's facility located in Westbury, New York is in Standard Industrial Classification Code 3399.

9. Respondent's facilities are subject to the requirements of Section 313(b) of EPCRA (42 U.S.C. §11023(b)) and 40 C.F.R. §372.22.

10. A review of the Toxic Release Inventory Envirofacts Database indicated that Respondent's Hicksville, New York facility voluntarily submitted a Form R to the EPA for nickel for the 1999 calendar year on September 12, 2001.

11. Respondent was required to submit by July 1, 2000 a complete and correct Form R for each chemical "processed" (as defined in 40 C.F.R. §372.3) in quantities greater than 25,000 pounds [40 C.F.R. §372.25 (a)] during calendar year 1999 to the Administrator of EPA and to the State of New York. Respondent processed greater than ten times the threshold of nickel in 1999.

12. The postmark date of Respondent's Form R for nickel for the 1999 calendar year was September 12, 2001. The Form R was greater than one year late.

13. Respondent failed to submit, in a timely manner, a complete and correct Form R for nickel for calendar year 1999 to the Administrator and to the State of New York.

14. Respondent's failure to submit, in a timely manner, a Form R for nickel for the calendar year 1999 constitutes a failure to comply with Section 313 of EPCRA (42 U.S.C. §11023) and with 40 C.F.R. Part 372.

15. A review of the Toxic Release Inventory Envirofacts Database indicated that Respondent's Hicksville, New York facility voluntarily submitted a Form R to the EPA for aluminum (fume or dust) for the 1999 calendar year on September 12, 2001.

16. Respondent was required to submit by July 1, 2000 a complete and correct Form R for each chemical "processed" (as defined in 40 C.F.R. §372.3) in quantities greater than 25,000 pounds [40 C.F.R. §372.25 (a)] during calendar year 1999 to the Administrator of EPA and to the State of New York. Respondent processed less than ten times the threshold of aluminum (fume or dust) in 1999.

17. The postmark date of Respondent's Form R for aluminum (fume or dust) for the 1999 calendar year was September 12, 2001. The Form R was greater than one year late.

18. Respondent failed to submit, in a timely manner, a complete and correct Form R for aluminum (fume or dust) for calendar year 1999 to the Administrator and to the State of New York.

19. Respondent's failure to submit, in a timely manner, a Form R for aluminum (fume or dust) for the calendar year 1999 constitutes a failure to comply with Section 313 of EPCRA (42 U.S.C. §11023) and with 40 C.F.R. Part 372.

20. A review of the Toxic Release Inventory Envirofacts Database indicated that Respondent's Hicksville, New York facility voluntarily submitted a Form R to the EPA for chromium compounds for the 1999 calendar year on September 12, 2001.

21. Respondent was required to submit by July 1, 2000 a complete and correct Form R for each chemical "processed" (as defined in 40 C.F.R. §372.3) in quantities greater than 25,000 pounds [40 C.F.R. §372.25 (a)] during calendar year 1999 to the Administrator of EPA and to the State of New York. Respondent processed less than ten times the threshold of chromium compounds

22. The postmark date of Respondent's Form R for chromium compounds for the 1999 calendar year was September 12, 2001. The Form R was greater than one year late.

23. Respondent failed to submit, in a timely manner, a complete and correct Form R for chromium compounds for calendar year 1999 to the Administrator and to the State of New York.

24. Respondent's failure to submit, in a timely manner, a Form R for chromium compounds for the calendar year 1999 constitutes a failure to comply with Section 313 of EPCRA (42 U.S.C. §11023) and with 40 C.F.R. Part 372.

25. A review of the Toxic Release Inventory Envirofacts Database indicated that Respondent's Westbury, New York facility voluntarily submitted a Form R to the EPA for copper for the 1999 calendar year on September 12, 2001.

26. Respondent was required to submit by July 1, 2000 a complete and correct Form R for each chemical "processed" (as defined in 40 C.F.R. §372.3) in quantities greater than 25,000 pounds [40 C.F.R. §372.25 (a)] during calendar year 1999 to the Administrator of EPA and to the State of New York. Respondent processed less than ten times the threshold of copper.

27. The postmark date of Respondent's Form R for copper for the 1999 calendar year was September 12, 2001. The Form R was greater than one year late.

28. Respondent failed to submit, in a timely manner, a complete and correct Form R for copper for calendar year 1999 to the Administrator and to the State of New York .

29. Respondent's failure to submit, in a timely manner, a Form R for copper for the calendar year 1999 constitutes a failure to comply with Section 313 of EPCRA (42 U.S.C. §11023) and with 40 C.F.R. Part 372.

## TERMS OF CONSENT AGREEMENT

Based on the foregoing, and pursuant to Section 325(c) of Title III of the Superfund Amendments and Reauthorization Act (42 U.S.C. §11001 et seq.) and Section 22.18 of the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties, Etc. (40 C.F.R. §22.18 (July 1, 2000)), it is hereby agreed by and between the parties hereto, and voluntarily and knowingly accepted by Sulzer Metco (US) Inc., that Sulzer Metco (US) Inc., for purposes of this Consent Agreement: **a)** admits that EPA has jurisdiction pursuant to Section 325(c) of Title III of the Superfund Amendments and Reauthorization Act (42 U.S.C. §11001 et seq.) to commence a civil administrative proceeding for the violations alleged in the "Conclusions of Law" section, above; **b)** neither admits nor denies the specific factual allegations contained in the Findings of Fact and Conclusions of Law section above; **c)** consents to the assessment of the civil penalty as set forth below; and **d)** consents to the issuance of the Final Order accompanying this Consent Agreement.

It is further hereby agreed by and between the parties hereto, and voluntarily and knowingly accepted by Respondent, that it accepts and shall comply with the following terms and conditions:

1. Respondent shall pay, by cashier's or certified check, a civil penalty in the amount of a civil penalty in the amount of **TWELVE THOUSAND ONE HUNDRED DOLLARS ($12,100)**, in three installments, payable to the "Treasurer, United States of America" and mailed to:

Region 2 - Regional Hearing Clerk
United States Environmental Protection Agency
P.O. Box 360188M
Pittsburgh, PA 15251.

The instrument of payment shall be identified with a notation thereon listing the following: In the Matter of Sulzer Metco (US) Inc., Docket No. EPCRA-02-2003-4230. Payment of **$12,100** must be received at the above address on or before 45 calendar days after the date of signature of the Final Order at the end of this document (the date by which payment must be received shall hereafter be referred to as the "due date").

The instrument of payment shall be identified with a notation thereon listing the following: In the Matter of Sulzer Metco (US) Inc., Docket No. EPCRA-02-2003-4230.

a. Failure to pay the amount in full within the time period set forth above may result in referral of this matter to the United States Department of Justice or the United States Department of The Treasury for collection.

b. Furthermore, if payment is not made on or before the date specified in this document, interest for said payment shall be assessed at the annual rate established by the Secretary of The Treasury pursuant to 31 U.S.C. §3717, on the overdue amount from the date said payment was to have been made through the date said payment has been received. In addition, a late payment handling charge of $15.00 will be assessed for each thirty (30) calendar day period, following the date the payment was to have been made, in which payment of the amount remains in arrears. In addition, a 6% per annum penalty also will be applied on any principal amount not paid within 90 days of the due date.

2. Complainant agrees to mail to Respondent a copy of the fully executed Consent Agreement and Final Order ("CAFO"), and Sulzer Metco (US) Inc. consents to service of the CAFO upon it by an employee of EPA other than the Regional Hearing Clerk. A copy of Respondent's instrument of payment shall be forwarded to each of:

Karen Maples, Regional Hearing Clerk
United States Environmental Protection Agency - Region 2
290 Broadway, 17th Floor
New York, New York 10007-1866

and

Kenneth S. Stoller, P.E., QEP, DEE, Chief
Pesticides and Toxic Substances Branch (MS-105)
United States Environmental Protection Agency - Region 2
2890 Woodbridge Avenue
Edison, New Jersey 08837-3679

3. This Consent Agreement is being voluntarily entered into by the parties in full and final settlement of all civil liabilities under the Emergency Planning and Community Right-to-Know Act of 1986 (42 U.S.C. §11001 et seq.) and the regulations promulgated thereunder, 40 C.F.R. Part 372, that attach or might have attached as a result of the allegations and assertions contained in the "Findings of Fact and Conclusions of Law" section, above.

4. Sulzer Metco (US) Inc. hereby waives its right to seek or to obtain any hearing (pursuant to Subpart D of 40 C.F.R. Part 22) on the "Findings of Fact" or the "Conclusions of Law" or the provisions of the Consent Agreement and Final Order in this matter.

5. Sulzer Metco (US) Inc.'s payment of the penalty in accordance with the requirements set forth in this document and any action it takes in compliance with or otherwise in connection with this Consent Agreement shall not affect the right of the EPA or the United States to pursue appropriate injunctive or otherwise equitable relief or criminal sanctions for any violation(s) of law occurring at Sulzer Metco (US) Inc..

6. Sulzer Metco (US) Inc. has read the Consent Agreement, understands its terms, and voluntarily consents to its issuance and to abide by its terms and conditions, including payment of the full amount of the civil penalty in accordance with the terms set forth above. Respondent consents to the issuance of the accompanying Final Order. Respondent agrees that all terms of settlement are set forth herein.

7. Sulzer Metco (US) Inc. voluntarily waives any right or any remedy it has or might have pursuant to 40 C.F.R. §22.8 to be present during discussions with, or to be served with and reply to any memorandum or other communication addressed to, the Regional Administrator of EPA, Region 2, or the Deputy Regional Administrator of EPA, Region 2, where the purpose of such discussion, memorandum or other communication is to recommend that such official accept this Consent Agreement and issue the accompanying Final Order.

8. This Consent Agreement and Final Order does not waive, extinguish, or otherwise affect respondent's obligation to comply with all applicable provisions of EPCRA and the regulations promulgated thereunder.

9. Each party shall bear its own costs and fees.

10. Each undersigned signatory to this Consent Agreement certifies that: a) he or she is duly and fully authorized to enter into and ratify this Consent Agreement and all the terms, conditions and requirements set forth in this Consent Agreement, and b) he or she is duly and fully authorized to bind the party on behalf of whom he or she is entering this Consent Agreement to comply with and abide by all the terms, conditions and requirements of this Consent Agreement.

**RESPONDENT:**

BY: _____

**Sulzer Metco (US) Inc.**

NAME: PETER DI PIETRANTONIO
(PLEASE PRINT)

TITLE: ENV. HEALTH & SAFETY SPECIALIST

DATE: SEPTEMBER 24, 2003

**COMPLAINANT:**

_____

**Patrick M. Durack, Acting Director**
Division of Enforcement and Compliance Assistance
U.S. Environmental Protection Agency - Region 2
290 Broadway
New York, New York 10007

DATE: _____

**In the Matter of Sulzer Metco (US) Inc.**
**Docket Number EPCRA-02-2003-4230**

## FINAL ORDER

The Regional Administrator of the U.S. Environmental Protection Agency, Region 2 , ratifies the foregoing Consent Agreement. The Agreement entered into by the parties in full settlement **In the Matter of Sulzer Metco (US) Inc.** bearing Docket Number EPCRA-02-2003-4230 is hereby approved, incorporated herein, and issued as an Order. The effective date of this Order shall be the date of filing with the Regional Hearing Clerk, U.S. EPA Region 2, New York, New York .

**Jane M. Kenny**
Regional Administrator
U.S. Environmental Protection Agency
Region 2
290 Broadway
New York, New York 10007

DATED: _____, 2003

TRANSMISSION REPORT

**********

:ENV COMP & CTRL/FACL ( AUG 20 '93 01:43PM )

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FAX TRANSMITTAL FROM:

# METCO PERKIN-ELMER


ENVIRONMENTAL

COMPLIANCE AND CONTROL

1101 PROSPECT AVENUE

WESTBURY, NY 11590-0201

(516) 334-1300 MAIN NUMBER

(516) 338-2337 ENVIRONMENTAL COMPLIANCE AND CONTROL

(516) 338-2336 FAX NUMBER


DATE: AUGUST ~~20~~ 23, 1993

TO: COMPANY: GERAGHTY AND MILLER

ATTENTION: MR. TOM ENG

DEPT. /M.S.: FAX (516) 249-7610

FROM: C.L. CONRDY

~~3~~ 2 PAGES TO FOLLOW

# METCO CLEANING SOLVENT

## A NON-FLAMMABLE SOLVENT ESPECIALLY PREPARED FOR DEGREASING AND CLEANING METAL SURFACES PRIOR TO THERMAL SPRAYING.

## INSTRUCTIONS:

Use cold. Do not use for vapor phase degreasing.

Wipe or brush, using rags or brush.

Do not pour used solvent back in can.

Do not use on rubber or plastics.

Do not use in oxygen systems.

Do not contaminate with water.

Do not vaporize in presence of ignition sources.

**HAZARD NOTICE:** This material is for the thermal spraying process. Consult the METCO Instruction Manual, the Material Safety Data Sheet, and applicable Federal and local jurisdiction safety and health regulations before utilizing this product. This product should not be ingested; inhalation and skin contact should be avoided. Local ventilation, skin and respiratory protection should be used during handling. Good housekeeping and personal hygiene should be practiced. Some individuals may show unusual sensitivity to exposure. Failure to observe proper practices may result in health hazards.

CHEMTREC

**HARMFUL OR FATAL IF INHALED. HARMFUL OR FATAL IF SWALLOWED.**
**CONTAINS 1,1,1-TRICHLOROETHANE.**
**USE ONLY WITH ADEQUATE VENTILATION. FOR INDUSTRIAL USE ONLY.**

**Specific Effects Of Overexposure:**

**1,1,1-Trichloroethane:** Hazard by inhalation, ingestion, skin and eye contact. Inhalation may cause an anesthetic effect and has been shown to cause pathological changes in the liver and lungs of some animal species. Inhalation or ingestion may produce symptoms of dizziness, drowsiness, distorted perceptions, motor activity changes, irritability, aggression, diarrhea, nausea, vomiting or other gastrointestinal tract changes. Narcotic in high concentrations. Cardiac sensitization can occur in high exposures. Long term overexposure may cause liver/kidney damage. Skin contact may cause irritation, defatting of the skin causing redness and scaliness. Eye contact may produce severe irritation.

**Target Organs:** Cardiovascular system, Central nervous system, gastrointestinal tract, liver, kidney, skin, eyes.

**In Case of Fire:**

Extinguishing Media: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or foam).

Unusual Fire and Explosion Hazards: 1,1,1-Trichloroethane is moderately flammable at higher temperatures; no flash point when tested in conventional closed tester at ordinary temperatures.

Special Fire Fighting Procedures: Fire fighters should wear a NIOSH/MSHA approved pressure-demand, self-contained breathing apparatus for possible exposure to hydrogen chloride and possible traces of phosgene. When heated to decomposition can emit highly toxic phosgene, hydrogen chloride and chlorine. May also be decomposed slowly by contact with water to hydrogen chloride. ~~Under proper conditions can undergo hazardous reactions with aluminum oxide and heavy metals; dinitrogen tetraoxide; inhibitors; metals; sodium hydroxide; nitrogen tetroxide; oxygen.~~

**In Case of Spill or Leak:**

Immediately evacuate the area ~~and provide maximum ventilation.~~ Unprotected personnel should move upwind of spill. Only personnel equipped with proper respirator and skin/eye protection should be permitted in area. ~~Dike areas to contain spill.~~ Take precautions as necessary to prevent contamination of ground and surface waters. ~~Recover or absorb spilled material with sawdust or vermiculite and sweep into closed containers for disposal. After all visible traces have been removed, thoroughly wet vacuum the area. DO NOT flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc., as necessary and place in closed containers for disposal.~~

RELOCATE.

**FOR EMERGENCY ASSISTANCE CALL**
**CALL CHEMTREC - DAY OR NIGHT**
**1-800-424-9300**

**Special Protection Information:**

Adequate local/general ventilation should be provided when using this product. Appropriate respiratory, skin, eye and hand protection should be utilized when using this product. ~~Avoid prolonged or repeated contact with skin. Do not take internally. CALL PHYSICIAN IMMEDIATELY, if swallowed. High concentrations of vapors are anesthetic and dangerous to life. NIOSH/MSHA approved pressure-demand, self-contained breathing apparatus must be used where thorough ventilation is not possible. Eye irritation and dizziness are signs of inadequate ventilation and dangerous concentration.~~

**Special Precautions:**

Precautions to be Taken in Handling and Storing: Store away from incompatibles. Keep containers closed when not in use. Do not store in open, unlabeled or mislabeled containers. Do not transfer contents to bottles or other unlabeled containers. Store in a cool and dry area. Do not use in poorly ventilated or confined areas. ~~Liquid oxygen or other strong oxidants may form explosive mixtures with METCO Cleaning Solvent. This material or its vapors when in contact with flames, hot glowing surfaces or electric arcs can be decomposed to form hydrogen chloride gas and traces of phosgene.~~

Other Precautions: Avoid oral ingestion and excessive skin contact. ~~Do not drink, eat or smoke in work areas.~~ Clean hands thoroughly after using especially before eating. ~~Avoid prolonged or repeated breathing of vapors. High vapor concentrations can cause dizziness or unconsciousness. Long term overexposure may cause liver/kidney damage.~~

DO NOT FLAME CUT, BRAZE OR WELD EMPTY CONTAINERS.

KEEP CONTAINERS CLOSED WHEN NOT IN USE.

Waste Disposal Method: ~~Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. Contaminated sawdust, vermiculite or porous surface must be disposed of in a permitted hazardous waste management facility. Recovered liquids may be reprocessed or incinerated or must be treated in a permitted waste management facility.~~ Dispose of the chemical materials and/or their containers in accordance with federal, state or local laws/regulations regarding disposal.

**WARNING:** Contains Methyl Chloroform, a substance that harms public health and environment by destroying ozone in the upper atmosphere.

**USING THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD CLASSIFICATIONS, THIS PRODUCT'S HAZARD CLASSIFICATION IS:**

| | |
|---|---|
| HEALTH | 3 |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | See the MSDS for proper personal protective equipment. |

Flash Point: None. AT ORDINARY TEMPERATURES.

UN2831, ORM-A

*While this information is furnished in good faith, no guaranty is made as to accuracy. This material is for the Thermal Spraying Process, and relevant instructions should be consulted before use. The user assumes all risk in connection with the use of this material. METCO PERKIN-ELMER shall in no event be liable for special, incidental or consequential damages in connection with this information, or for any damage or injury caused by this material if used for any other purpose than the Thermal Spray Process, or if proper safety and health practices are not followed.*

# SULZER METCO

**Sulzer Metco (US) Inc.**
1101 Prospect Avenue
PO Box 1006
Westbury, NY 11590-0201
Phone: (516) 334-1300
Fax: (516) 338-2488

July 31, 1995

State Emergency Response Commission
c/o State Emergency Management Office
Building 22, State Campus
Albany, NY 12226-5000

Subject: Toxic Chemical Release Inventory
Reporting Form R

Dear Sir/Madam:

Enclosed you will find completed Toxic Chemical Release Inventory Reporting Forms for our Prospect Avenue and Miller Place facilities.

Please note that as of September 30, 1994, the three properties on Long Island owned by the Perkin-Elmer Corporation, doing business as the Metco division of Perkin-Elmer, were sold by Perkin-Elmer to Sulzer Metco (US), Inc., a Delaware Corporation having a principal place of business at the Prospect Avenue facility. We hope that our delayed reporting has not caused any inconvenience.

Please call me if you have any questions or require clarification.

Very truly yours,

Joseph D. Reardon, Ph.D.
Global Quality
Phone: (516) 338-2316
FAX: (516) 338-2336

JR/clc
Enclosure

c: Mario H. Kyd, Sulzer Metco
Daniel Moraschetti, Sulzer Metco
Constance L. Conroy, Sulzer Metco



METCO AMDRY

Part V

LARGE QUANTITY GENERATOR

Sulzer Hetco - Westbury
NYD 131 318 651
June 2003

Indicate:

X Violations

Indicate:

X Satisfactory
NA Not Applicable

The generator who generates 1,000 kilograms or more per month of non-acute hazardous waste or generates greater than 1 kg per month of acute hazardous waste has complied with the following:

1. General Requirements

(a) ___ The generator has made a determination as to whether or not his solid waste is a hazardous waste - 372.2(a)(2). X

(b) ___ The generator has obtained an EPA identification number - 372.2(a)(3). X

2. Accumulation Area Requirements - 372.2(a)(i)

(a) ___ The containers appear to be in good condition and are not in danger of leaking - 373-3.9(b). X

(b) ___ Hazardous waste is stored in containers made of compatible materials - 373-3.9(c). X

(c) ___ All containers except those in use are closed - 373-3.9(d)(1). X

(d) ___ Containers holding hazardous waste must not be opened, handled or stored in a manner which may rupture the containers or cause them to leak - 373-3.9(d)(2). X

(e) X Containers are marked with the words "Hazardous Waste" and with other words that identify the contents of the containers - 372.2(a)(8)(i)(a)(2). ___

(f) ___ Hazardous waste may be accumulated in excess of 55 gallons or 1 quart of acutely hazardous waste at or near the point of generation provided that Section 372.2(a)(8)(ii) requirements are met within 3 days, and the container holding the excess accumulation is marked with the date the excess amount began accumulating - 372.2(a)(8)(i)(b). X

3. 90 Day Storage - 372.2(a)(8)(ii)

(a) ___ All wastes are shipped off-site to an authorized treatment, storage or disposal facility (TSDF) in 90 days or less - 372.2(a)(8)(ii). X

Indicate:

X Violations

Indicate:

X Satisfactory
NA Not Applicable

(b) X The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container - 372.2(a)(8)(ii), 373-1.1(d)(1)(iii)(c)(2), 373-1.1(d)(1)(iv)(d). Corrected @ time of inspection — ___

Container Storage Requirements (This section will also be completed for interim status TSDF's as referred from Part VI.)

(c) ___ The containers appear to be in good condition and are not in danger of leaking. (If containers are leaking, describe the type, condition, contents and number that are leaking or corroded. Be detailed and specific) - 373-3.9(b). — X

_____

_____

_____

(d) ___ Hazardous waste is stored in containers made of compatible materials - 373-3.9(c). (If not, please explain.) — X

_____

_____

(e) ___ All containers except those in use are closed - 373-3.9(d)(1). — X

(f) ___ Containers holding hazardous waste must not be opened, handled or stored in a manner which may rupture the containers or cause them to leak - 373-3.9(d)(2). — X

(g) X Each container is marked with the words "Hazardous Waste" and with other words to identify the contents - 373-3.9(d)(3). Corrected @ time of inspection — ___

(h) ___ The container storage area is inspected at least weekly - 373-3.9(e). — X

(i) ___ The generator complies with the following special requirements for storage of ignitable or reactive wastes - 373-3.9(f): — NA

(1) ___ Containers holding ignitable or reactive waste are located at least 15 meters (50 feet) from the facility property line - 373-3.9(f). — |

(2) ___ Generator has taken precautions to prevent accidental ignition or reaction of ignitable or reactive waste by separating and protecting such waste from sources of ignition or reaction - 373-3.2(h)(1). — |

(3) ___ Generator has placed "No Smoking" signs conspicuously wherever there is a hazard from ignitable or reactive waste - 373-3.2(h)(1). — NA

Indicate:

X Violations

Indicate:

X Satisfactory
NA Not Applicable

(j) ___ The generator complies with the following special requirements related to incompatible wastes - 373-3.9(g): NA

(1) ___ Incompatible wastes, or incompatible wastes and materials, are not placed in the same container, or in an unwashed container that previously held an incompatible waste or material unless the placement is conducted to prevent the following - 373-3.9(g)(1) & (2):

(a) ___ the generation of extreme heat or pressure, fire or explosion, or violent reaction - 373-3.2(h)(2)(i);

(b) ___ production of uncontrolled toxic mists, fumes, dusts or gases in sufficient quantities to pose a risk of fire or explosions - 373-3.2(h)(2)(ii);

(c) ___ production of uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions - 373-3.2(h)(2)(iii);

(d) ___ damage to the structural integrity of the device or facility containing the waste - 373-3.2(h)(2)(iv); or

(e) ___ a threat to human health or the environment - 373-3.2(h)(2)(v).

(2) ___ Containers holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device - 373-3.9(g)(3).

(3) ___ The owner or operator shall manage all hazardous waste placed in containers in accordance with the applicable requirements of sections 373-3.27, 373-3.28 and 373-3.29 of the Subpart (Complete Appendix X) - 373-3.9(h). NA

(k) ___ Special requirements for generators of liquid hazardous waste over sole source aquifers or generators that store more than 8,800 gallons of liquid hazardous waste - 373-1.1(d)(1)(iii), 373-1.1(d)(1)(iv). NA

(l) ___ The container storage areas are within a secondary containment system designed and operated in accordance with the following* - 373-1.1(d)(1)(iv)(f):

(a) ___ The base under the containers must be free of cracks or gaps and sufficiently impervious to contain collected material until it is removed - 373-2.9(f)(1)(i).

(b) ___ The base must be sloped or the containment system otherwise designed and operated to drain and remove liquid unless the containers are elevated or protected from contact with accumulated liquids - 373-2.9(f)(1)(ii). NA

Indicate:

X Violations

Indicate:

X Satisfactory
NA Not Applicable

(c) ___ The containment system must have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids are not considered in this determination - 373-2.9(f)(1)(iii). NA

(d) ___ Run-on is prevented unless the system has sufficient excess capacity over that required in (3) - 373-2.9(f)(1)(iv).

(e) ___ Accumulated waste and precipitation must be removed as necessary to prevent overflow - 373-2.9(f)(1)(v). NA

* This requirement does not apply to generators of liquid hazardous waste over a sole source aquifer if the container storage volume does not exceed 185 gallons.

(2) ___ The generator of liquid hazardous waste over a sole source aquifer has a written closure plan - 373-3.7(c)(1). NA

(3) ___ The closure plan identifies the steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must contain the information required by 373-3.7(c)(2)(i) - (vii)** - 373-3.7(c)(2). NA

** If a violation is checked, please attach a sheet listing the deficiencies in the closure plan.

4. Tank Storage Requirements - 373-3.10

1. ___ Generators must complete Appendix E, except for 373-3.10(h)(3) Items 9C1 through 5. In addition, 373-3.7 and 3.8 which are cross-referenced do not apply except for 373-3.7(b) and (e).

2. ___ Generators over sole-source aquifers complete Appendix E, except for 373-3.10(h)(3), Items 9C1 through 5 and 373-3.8 (financial requirements).

5. Manifest, Reporting and Recordkeeping Requirements

(a) ___ Hazardous waste is shipped off-site with an accompanying manifest - 372.2(b)(5)(i). X

If violation is checked, please provide details.

_____

_____

(b) List the frequency of shipments and the amount of waste per shipment.

Approx 100gal D001 · 6 MOS to 1 YR.
1000 lbs D002 1-2 MOS
2000 lbs D007 / 6 MOS.

Indicate:

X Violations

Indicate:

X Satisfactory
NA Not Applicable

(c) ___ The transporter has a valid Part 364 permit or is otherwise authorized to transport the waste to the designated facility - 372.2(b)(5)(ii). X

(d) ___ The generator offers for shipment or ships hazardous waste to an authorized facility. - 372.2(b)(5)(iii). X

If violation is checked, please provide details.

_____

_____

_____

(e) ___ Each manifest is completed in accordance with the instructions found in Appendix 30 of Part 372 - 372.2(b)(1). [Indicate items in violation]

| | | Generator | Trans 1 | Trans 2 | TSDF | |
|---|---|---|---|---|---|---|
| (1) ___ | Name of | X | X | X | X | X |
| (2) ___ | EPA ID No. of | X | X | X | X | X |
| (3) ___ | Mailing Address of | X | | | X | X |
| (4) ___ | Telephone No. of | X | X | X | X | X |
| (5) ___ | Manifest Document # | | | | | X |
| (6) ___ | The proper USDOT description. | | | | | X |

(7) ___ The appropriate: X quantity, X container number, X container type, and X waste type by units of weight or volume. X

(8) ___ Signed certification that the materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation under regulations of the USDOT and NYSDEC. X

(f) ___ The generator has received signed copies (from the TSD facility) of all manifests for wastes shipped off-site more than 45 days ago: X

___ If not, exception reports have been submitted covering these shipments - 372.2(c)(3). NA

(g) ___ The generator must distribute copies of the manifest as specified on the manifest form, postmarked within five (5) business days of the shipment date - 372.2(b)(3). X

Indicate:

X Violations

Indicate:

X Satisfactory
NA Not Applicable

(h) ___ For international shipments the generator has done the following - 372.2(b)(4)(i): NA

(1) ___ The EPA and the Department have been notified 60 days prior to shipment of the hazardous waste destined for treatment, storage or disposal outside the United States - 372.5(c)(1).

(2) ___ Primary exporters of hazardous waste must file with the Administrator and the Department no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all hazardous waste exported during the previous calendar year - 372.5(f)(1). NA

(i) ___ The generator has complied with the requirements of Section 372.6 for interstate shipments - 372.2(b)(4)(ii). X

(j) ___ The generator has complied with the requirements for shipping by rail or water (bulk) found in Section 372.7 - 372.2(b)(4)(iii). NA

(k) ___ A copy of each manifest has been kept for at least three years from the date the waste was accepted by the initial transporter - 372.2(c)(1)(i). X

(l) ___ A copy of each Annual Report and Exception Report must be kept for a period of at least three years from the due date of the report - 372.2(c)(1)(ii). NA

(m) ___ A generator must keep records of any test results, waste analyses, or other determinations made in accordance with Part 372.2(a)(2) for at least three years - 372.2(c)(1)(iii). X

(n) ___ All records required under subdivision 372.2(c) were furnished upon request, or made available at a reasonable time for inspection - 372.2(c)(1)(iv). X

(o) ___ There is written communication that the designated treatment, storage or disposal facility is authorized for the hazardous wastes being offered for shipment, has capacity to accept such hazardous waste, and will assure the ultimate disposal method is followed - 372.2(b)(2)(i). X

(p) ___ There is written communication that the designated transporter is authorized to deliver the waste to the facility on the manifest - 372.2(b)(2)(ii). X

(q) ___ A generator who ships hazardous waste <u>off-site</u> to a treatment, storage or disposal facility located within the United States must submit an Annual Report on forms specified by the Commissioner - 372.2(c)(2). X

Indicate:

X Violations

Indicate:

X Satisfactory
NA Not Applicable

6. Personnel Training - 373-3.2(g)

(a) ___ The following documents and records are maintained at the facility - 373-3.2(g)(4): X

(1) ___ the job title for each position at the facility related to hazardous waste management and name of the employee filling each job - 373-3.2(g)(4)(i); X

(2) ___ a written job description for each position - 373-3.2(g)(4)(ii); X

(3) ___ a written description of the type and amount of both introductory and continuing training that will be given to each person related to hazardous waste management - 373-3.2(g)(4)(iii); and X

(4) ___ records that document that the training or job experience required has been given to and completed by facility personnel - 373-3.2(g)(4)(iv). X

(b) ___ The training program is directed by a person trained in hazardous waste management procedures and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed. The components are - 373-3.2(g)(1)(i), (ii) and (iii): X

(1) ___ Procedures for using, inspecting, repairing and replacing facility emergency and monitoring equipment; X

(2) ___ Key parameters for automated waste feed cutoff systems; X

(3) ___ Communications or alarm systems; X

(4) ___ Response to fires and explosions; X

(5) ___ Response to groundwater contamination incidents; and X

(6) ___ Shutdown of operations. X

(c) ___ Facility personnel have successfully completed the program by the effective date of these regulations or six months after the date of their employment - 373-3.2(g)(2). X

(d) ___ Facility personnel have taken part in an annual review of the initial training required - 373-3.2(g)(3). X

(e) ___ Training records on current personnel have been kept permanently at the facility (until closure) - 373-3.2(g)(5). X

Indicate:

X Violations

Indicate:

X Satisfactory
NA Not Applicable

(f) __ Training records on former employees have been kept for at least three years from the date the employee last worked at the facility - 373-3.2(g)(5). X

7. Preparedness and Prevention - 373-3.3

(a) ___ The facility is maintained and operated to minimize the possibility of a fire or explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water - 373-3.3(b). X

(b) ___ The facility must be equipped with the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below - 373-3.3(c): X

(1) ___ An internal communication or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel - 373-3.3(c)(1); X

(2) ___ A device, such as a telephone (immediately available at the scene of operations) or a hand-held, two-way radio capable of summoning emergency assistance from local police departments, fire departments, or emergency response teams - 373-3.3(c)(2); X

(3) ___ Portable fire extinguishers, fire control equipment, spill control equipment and decontamination equipment - 373-3.3(c)(3); and X

(4) ___ Water at adequate volume and pressure to supply water hose streams, or foam-producing equipment, or automatic sprinklers, or water spray systems - 373-3.3(c)(4). X

(c) ___ Facility communications or alarm systems, fire protection equipment, and spill control equipment are tested and maintained as necessary to assure their proper operation in time of emergency - 373-3.3(d). X

(d) ___ Personnel involved in hazardous waste operations have immediate access to an internal alarm or emergency communication device either directly or through visual or voice contact with another employee - 373-3.3(e). X

(e) ___ The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency unless aisle space is not needed for any of these purposes - 373-3.3(f). X

(f) ___ The facility owner or operator has attempted to make the following arrangements as appropriate with local authorities for the type of waste handled at the facility and the potential need for the services of these organizations - 373-3.3(g)(1): X

Indicate:

X Violations

Indicate:

X Satisfactory
NA Not Applicable

(1) ___ Arrangements to familiarize police, fire departments and emergency response teams with the functions and layout of the facility - 373-3.3(g)(1)(i); X

(2) ___ Where more than one police and fire department might respond to an emergency, an agreement designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to primary emergency authority - 373-3.3(g)(1)(ii); NA

(3) ___ Agreements with State emergency response teams, emergency response contractors, and equipment suppliers - 373-3.3(g)(1)(iii); and NA

(4) ___ Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions or releases at the facility - 373-3.3(g)(1)(iv). X

(g) ___ Where state or local authorities decline to enter into such arrangements, the owner or operator has documented the refusal in the operating record - 373-3.3(g)(2). NA

8. Contingency Plan - 373-3.4

(a) ___ The facility has a contingency plan or some other emergency plan which incorporates hazardous waste management - 373-3.4(b)(1). X

(b) ___ If the facility has a Spill Prevention, Control, and Countermeasure Plan (SPCC) or some other emergency plan, that plan need only be modified to incorporate hazardous waste management provisions that are sufficient to comply with the Contingency plan requirements - 373-3.4(c)(2). NA

(c) ___ The following are included in the contingency plan - 373-3.4(c): X

(1) ___ A description of the actions facility personnel must take in response to fires, explosions or any unplanned sudden or non-sudden releases of hazardous waste or hazardous waste constituents to air, soil or surface water; 373-3.4(c)(1). X

(2) ___ A description of arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services; 373-3.4(c)(3). X

(3) ___ Names, addresses and office and home phone numbers of all persons qualified to act as emergency coordinator; 373-3.4(c)(4). X

Indicate:

X Violations

Indicate:

X Satisfactory
NA Not Applicable

(4) ___ An up-to-date list of all emergency equipment at the facility, and decontamination equipment, where this equipment is required; 373-3.4(c)(5). X

(5) ___ The location and a physical description of each item on the list, and a brief outline of its capabilities; 373-3.4(c)(5). X

(6) ___ An evacuation plan for facility personnel, where there is a possibility that evacuation could be necessary - 373-3.4(c)(6). X

(d) ___ Copies of the contingency plan are maintained at the facility - 373-3.4(d)(1). X

(e) ___ Copies of the contingency plan have been submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services - 373.3.4(d)(2). X

(f) ___ The contingency plan has been amended, as necessary, when applicable regulations were revised, the plan failed in an emergency, the facility changes or the list of emergency coordinators or equipment changes - 373-3.4(e). X

(g) ___ There is at least one employee either on the facility premises or on call with the responsibility and authority for coordinating all emergency response measures - 373-3.4(f). X

9. Emergency Procedures - 373-3.4(g)

(a) ___ During a past emergency situation the emergency coordinator (or his designee when the emergency coordinator is not on call) immediately activated emergency procedures - 373-3.4(g).* NA

*Do not go back further than the previous inspection date.

(b) ___ The following was done:

(1) ___ Activated internal facility alarms or communication systems; —

(2) ___ Notified appropriate state or local agencies; —

(3) ___ Immediately identified the character, exact source, amount and areal extent of any released materials; —

(4) ___ The emergency coordinator assessed possible hazards to human health and the environment; —

(5) ___ The emergency coordinator, after determining that the facility had a release, fire or explosion which could threaten human health or NA

the environment outside the facility, reported his findings;

(6) ___ During the emergency, the emergency coordinator took all reasonable measures necessary to ensure that fire, explosions and releases do not occur, recur or spread to other hazardous waste;

(7) ___ The emergency coordinator monitored for leaks, pressure buildup, gas generation or ruptures in valves, pipes or other equipment, where appropriate during the facility's response to the emergency;

(8) ___ The emergency coordinator provided for treating, storing or disposing of recovered waste, contaminated soil or surface water, or any other material that resulted from a release, fire or explosion at the facility;

(9) ___ The emergency coordinator ensured that in the affected area no waste that may be incompatible with the released material was treated, stored or disposed of until cleanup procedures were completed;

(10)___ The emergency coordinator ensured that all emergency equipment listed in the contingency plan was cleaned and fitted for its intended use before operations were resumed;

(11)___ The owner or operator notified the Commissioner that the facility is in compliance with Part 373-3.4(g)(8) before operations were resumed in the affected areas of the facility;

(12)___ The owner or operator noted in the operating record the time, date and details of the incident that required implementation of the contingency plan;

(13)___ The owner or operator submitted a complete written report on the incident within 15 days after the incident occurred.

NA

NA

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

August 1991

Thomas C. Jorling
*Commissioner*

ATTN: ABRAHAM TEICHER
METCO INC.(WESTBURY PLANT)
1101 PROSPECT AVE.
WESTBURY, NY 11590

Re: Hazardous Substance Bulk Storage
Tank Registration
ICS Number: 1167354

Dear ABRAHAM TEICHER:

The New York State Environmental Conservation Law, Article 40, requires the registration of hazardous substance bulk storage tanks. This includes aboveground stationary tanks with a capacity of 185 gallons or more and underground tanks of any size.

Our records indicate that you were mailed a registration package in December 1988 and have not yet responded whether your site(s) is or is not regulated by the CBS regulations. The package included a cover letter, which summarized the Chemical Bulk Storage (CBS) regulations, 6 NYCRR Parts 595-597, a copy of the CBS regulations, and a registration application form.

If any of the chemicals you store are regulated under the CBS regulations, please complete the enclosed Hazardous Substance Bulk Storage application form listing the regulated tanks at your site. An instruction sheet has also been enclosed for your reference. Also, the registration fee schedule is listed in section 596.4 of the CBS regulations. Fees range from $50 to $125 per storage tank.

Please check the appropriate box on the next page and return this letter, completed application and fee (if required) within 30 days to:

NYS DEC
50 Wolf Road, Room 326
Albany, NY 12233-3530

You are strongly urged to follow-up on this matter. Failure to register may result in a fine of up to $25,000 per day, if you are found to be in violation.

ICS Number: 1167354

[ ] 1. Completed application and fee are enclosed.

[ ] 2. This site has already been registered. The CBS # is _____.

[ ] 3. Registration is not required (check all that apply):

[ ] a. Site does not store any chemicals listed in Part 597.
[ ] b. Site does not have any stationary chemical bulk storage tanks.
[ ] c. Other (please specify) _____
_____.

If you have any questions, need a copy of the Chemical Bulk Storage regulations or additional CBS application forms, please call the Bulk Storage Help-line at 1-800-242-4351.

Bulk Storage Data Section
Bureau of Spill Prevention and Response

enclosures

93-19-4 (10/90)—26c NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# INSTRUCTIONS FOR COMPLETING HAZARDOUS SUBSTANCE BULK STORAGE APPLICATION

Please type or print all items, except "signature" in Section A. This form must be completed for each regulated site containing hazardous substances. If more than 15 regulated tanks exist at a site, use additional applications to register these tanks. A site plan including Tank Numbers must also be included. **Instructions for Section B are on the reverse side.**

## SECTION A

| Item Name | Specific Instructions |
|---|---|
| **CBS NUMBER** | Enter the seven digit DEC Chemical Bulk Storage Registration Number if the site was previously registered; otherwise, leave blank. |
| **OTHER EXISTING DEC NUMBERS** | **PBS Number:** Enter the Petroleum Bulk Storage Number if the site has been registered under the Petroleum Bulk Storage Law, Article 17, Title 10 of ECL; 6 NYCRR Parts 612-614. If not applicable, write "Not Applicable".<br>**MOSF Number:** Enter the license number if the site is currently licensed with DEC as a Major Petroleum Facility under Article 12 of the Navigation Law. If not applicable, write "Not Applicable".<br>**SPDES Number:** Enter the number which has been assigned to a facility under the State Pollutant Discharge Elimination System, Article 17, Title 8 of ECL; 6 NYCRR Parts 750-758. If not applicable, write "Not Applicable". |
| **TRANSACTION TYPE** | |
| **Initial/New Site:** | First application for registration by the owner of a regulated site. CBS Number will be assigned by DEC. |
| **Change of Ownership:** | Application for registration by the new owner of the site being transferred. Be sure to enter the CBS Number from the existing Registration Certificate and complete all sections. |
| **Substantial Tank Modification:** | Complete this section if one of the following exists: (1) one or more new stationary tanks has been added to the site; or (2) an existing stationary tank has been replaced, reconditioned or permanently closed. In Section A, complete the Site Section, CBS Number, and provide the signature of a duly authorized officer. In Section B, fill in the entire line of information for each tank being amended. |
| **Information Correction:** | If any information changes have occurred since the initial application or the last renewal, include the corrected information in the appropriate spaces and be sure to include the CBS Number. In Section A, the signature of a duly authorized officer must be provided. |
| **Renewal:** | Application is being made for a previously registered site that has not changed ownership since the last registration. Registration Certificates for Chemical Bulk Storage sites must be renewed every two years and are not transferable. Indicate any changes that may have occurred since last renewal and provide the signature of the duly authorized officer. |
| **GEOGRAPHICAL LOCATOR** | Indicate the actual latitude and longitude for the site. This includes the degrees, minutes and seconds of the location. If known, please provide. |
| **SITE INFORMATION** | Enter the name and location (**NO** PO Boxes, please) of the site. Include any information that would assist in locating the site. For county, enter the county in which the site is located. For township, enter the geographical location, not the mailing city. Enter the site telephone number and the name of the operator at the site who is familiar with the site and the efforts of the business to comply with provisions of Article 40 of the Hazardous Substance Bulk Storage Law, 6 NYCRR Parts 595-599 of CBS Regulations. |
| **OWNER INFORMATION** | Name, address and telephone number of the company which owns the site. Federal Tax Identification Number is the number assigned by the Internal Revenue Service. It is required by New York State Department of Tax and Finance. For owner type, check the appropriate box. |
| **MAILING CORRESPONDENCE** | Enter the desired mailing name and address for correspondence (i.e. Certificates, Tank Bulletin) and the name of the contact person who is familiar with the efforts of the business to comply with the provisions of Article 40 of the Hazardous Substances Bulk Storage Law, 6 NYCRR Parts 595-599. |
| **TYPE OF CHEMICAL SITE** | Check the appropriate box(es). If other, specify the type of site in the space provided. |
| **NAME AND OFFICIAL TITLE OF OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE** | An application submitted by a corporation must be signed by a principal executive officer of at least the level of vice president or his/her duly authorized representative, if such representative is responsible for the overall operation of the site. In the case of a partnership or sole proprietorship, the application must be signed by a general partner or the proprietor, respectively. In the case of a municipality, state or other public facility, the application must be signed by either a principal or executive officer, ranking elected official or other duly authorized employee. |
| **AMOUNT ENCLOSED** | For transaction types 1, 2 and 5, please indicate the enclosed fee. Make check or money order payable to NYSDEC. The fee is based on individual tank storage capacity: 550 gallons or less—$50 per storage tank, 551-1100 gallons—100 per storage tank, more than 1100 gallons—$125 per storage tanks. For the complete fee schedule, see 6 NYCRR section 596.4(a), as it is different for over 250 tanks. |
| **SIGNATURE AND DATE** | Signature of the owner or duly authorized officer is required, along with the date the application was prepared. |

## INSTRUCTIONS FOR COMPLETING HAZARDOUS SUBSTANCE BULK STORAGE APPLICATION

(Continued from reverse side)

### SECTION B

| Item Name | Specific Instructions |
|---|---|
| **GENERAL INSTRUCTIONS** | Enter all the information (see KEY of choices for certain items, at the bottom of Section B). Use **one** complete line for each tank at the site. Enter one choice per block. Make only one entry per category, except for tank external protection, tank secondary containment, piping external protection, piping secondary containment,leak detection and spill/overfill prevention. |
| **ACTION** | **1. Initial Listing:** For initial registration, renewal, or change of ownership of a site.<br>**2. Add Tank:** For installing a new tank at a site.<br>**3. Close/Remove Tank:** For permanently closing a tank, or conversion to non-regulated substance/use.<br>**4. Information Correction:** If any information changes have occurred since the initial application or last renewal for any tank, include the corrected information in the appropriate spaces and be sure to include the tank number.<br>**5. Modify Tank:** For reconditioning a tank, i.e. permanent repair and/or relining. |
| **TANK NUMBER** | Use the tank numbering system at the site. If none exists then establish one i.e. 001, 002, etc. Any combination of letters and numbers is acceptable, except"000" or duplicate tank numbers at the same site. |
| **TANK LOCATION** | See 6 NYCRR, section 596.1(c)(1), and (28) for specific definitions of aboveground and underground tanks, respectively.<br>1. Aboveground: Tank bottom rests on grade or pad, allowing no visual inspection.<br>2. Aboveground on crib, rack, or cradle: Tank bottom rests above grade or pad, allowing visual inspection.<br>3. Aboveground, 10% or more belowground: Aboveground less than 90% above grade, partially buried.<br>4. Underground: Completely covered with earth or vaulted with no access.<br>5. Underground, vaulted, with access: Tank in subterranean vault, accessible for inspection. |
| **STATUS** | Enter the code that describes the current operational status of the tank. If a tank is not properly closed, it may be considered temporarily out-of-service (Status 2). |
| **INSTALLATION OR PERMANENT CLOSURE DATE** | For Actions 1, 2, 4 or 5, specify the month and year the tank was completely installed. If unknown, enter 0000. For Action 3, (Closure), enter the month and year the tank was permanently closed, or converted to non-regulated substance/use. |
| **CAPACITY** | Specify the total design or maximum capacity of the tank in gallons. |
| **TANK TYPE** | If tank type is unknown, or tank is coated or painted steel, enter 1. |
| **TANK—INTERNAL PROTECTION** | Specify the type of protection provided for the tank to prevent internal corrosion. |
| **TANK—EXTERNAL PROTECTION** | Specify the type(s) of protection provided for the tank to prevent external corrosion. |
| **TANK—SECONDARY CONTAINMENT** | Refer to section 596.1(c)(21) for definition of secondary containment. |
| **PIPING LOCATION** | 1. Aboveground: Piping rests on or above ground, or pad.<br>2. Underground: Completely covered with earth.<br>3. Aboveground/Underground Combination: Piping is both aboveground and underground. |
| **PIPING TYPE** | Enter the code that describes the material of construction. |
| **PIPING—INTERNAL PROTECTION** | Specify the type of protection provided for the pipe to prevent internal corrosion. |
| **PIPING—EXTERNAL PROTECTION** | Specify the type(s) of protection provided for the pipe to prevent external corrosion. |
| **PIPING—SECONDARY CONTAINMENT** | Refer to section 596.1(c)(21) for definition of secondary containment. |
| **LEAK DETECTION** | Enter the code(s) that describes the leak detection system(s) used. |
| **SPILL/OVERFILL PREVENTION** | Enter the code(s) that describes the methods/systems used for spill/overfill prevention. |
| **SUBSTANCE STORED (CAS NO.)** | Enter the CAS Number from the DEC Hazardous Substance List (6 NYCRR Part 597) for the product stored in the greatest concentration. |
| **SUBSTANCE DESCRIPTION** | Enter "1"if the substance stored is a single hazardous substance on DEC list (6 NYCRR Part 597). Enter "2" if the tank contains more than one hazardous substance on the list. |
| **PERCENTAGE OF HAZARDOUS SUBSTANCES** | Enter the total percentage, (1-100) by volume or weight, of hazardous substance(s) from DEC List (6 NYCRR Part 597) that is stored in the tank. |
| **SUBSTANCE STORED (Common Name)** | Enter the common chemical name for the substance stored corresponding to the CAS Number from the DEC Hazardous Substance List. If additional space is needed, use a separate sheet indicating tank number and substance. |
| **TANK FEE** | Enter the fee required for each tank, then use the total for each page to determine the total amount to enclose. |

93-19-4 (10/90)—26c

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER • BUREAU OF SPILL PREVENTION AND RESPONSE

# HAZARDOUS SUBSTANCE BULK STORAGE APPLICATION

**Pursuant to the Hazardous Substance Bulk Storage Law, Article 40 of ECL; and 6 NYCRR 595-599.**

(Continued on Reverse Side—Please Be Sure to Complete Section B)

Please Type or Print Clearly
And Complete All Items

## SECTION A—See Instructions on Cover Sheet

**CBS NUMBER**

Indicate Other Existing DEC Numbers, if any, for this Site:

PBS Number: _____

MOSF Number: _____

SPDES Number: _____

**TRANSACTION TYPE** (Check all that apply)
**NOTE:** Transaction types 1, 2 and 5 require a fee.

1. ☐ Initial/New Site
2. ☐ Change of Ownership
3. ☐ Substantial Tank Modification
4. ☐ Information Correction
5. ☐ Renewal

Geographical Locator for this Site: (if known)

LATITUDE: DEG MIN SEC

LONGITUDE: DEG MIN SEC

**SITE**

NAME

LOCATION (not P.O. Boxes)

LOCATION (Continued)

CITY/TOWN/VILLAGE | STATE NY | ZIP CODE

COUNTY | TOWNSHIP OR CITY

NAME OF OPERATOR AT SITE | SITE TELEPHONE NO. ( )

EMERGENCY CONTACT NAME | EMERGENCY TELEPHONE NO. ( )

**OWNER**

NAME

ADDRESS (Street and/or P.O. Box)

CITY | STATE | ZIP CODE

FEDERAL TAX ID NO. | OWNER TELEPHONE NUMBER ( )

TYPE OF OWNER (Check only one)
1 ☐ Private Resident 2 ☐ State Government 3 ☐ Local Government
4 ☐ Federal Government 5 ☐ Corporate/Commercial

**MAILING CORRESPONDENCE**

ATTENTION

NAME OF COMPANY

ADDRESS

ADDRESS

CITY/STATE/ZIP CODE

TELEPHONE NUMBER ( )

**TYPE OF CHEMICAL SITE:**
(Check all that apply)

A. ☐ Chemical Distributor
B. ☐ Storage Terminal
C. ☐ Retail Gasoline Sales
D. ☐ Manufacturing
E. ☐ Utility (i.e. Wastewater Treatment Plant)
F. ☐ Municipality
G. ☐ School
H. ☐ Private Residence/Apartment Building
I. ☐ Other (Specify) _____

I hereby certify under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

NAME OF OWNER OR AUTHORIZED REPRESENTATIVE | AMOUNT ENCLOSED $

TITLE

SIGNATURE | DATE

**OFFICIAL USE ONLY**

Page _____ of _____

ICS Code _____

Date Received: ____/____/____

Date Processed: ____/____/____

Amount Received $ _____

Reviewed By: _____

RETURN COMPLETED FORM, CHECK/MONEY ORDER AND SITE PLAN TO:
New York State Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12233-3530 Telephone Number (518) 457-4351 or 1-800-242-4351

CBS NUMBER:

# Tank Information for Hazardous Substance Bulk Storage Facility

## SECTION B—See Instructions on Cover Sheet



| Action | Tank Number | Tank Location | Status | Installation or Permanent Closure Date (MO) (YR) | Capacity (Gallons) | Tank Type | Tank Internal Prot. | Tank External Prot. | Tank Secondary Containment | Piping Location | Piping Type | Piping Internal Prot. | Piping External Prot. | Piping Secondary Containment | Leak Detection | Spill/Overfill Prevention | Substance Stored (CAS Number) | Substance Description | Percent of Hazardous Substances | Substance Stored (Common Name) | Tank Fee ($) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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TOTAL TANK FEE: $

### KEY FOR SECTION B

**ACTION**
1 Initial Listing
2 Add Tank
3 Close/Remove Tank
4 Information Correction
5 Modify Tank

**TANK LOCATION**
1 Aboveground
2 Aboveground on crib, rack, or cradle
3 Aboveground: 10% or more below ground
4 Underground
5 Underground, vaulted, with access

**STATUS**
1 In service
2 Temporarily Out-of-Service
3 Closed—Removed
4 Closed—In Place
5 Tank Converted to Non-Regulated Use

**TANK TYPE**
1 Steel/Carbon Steel
2 Stainless Steel Alloy
3 Fiberglass Coated Steel
4 Fiberglass Reinforced Plastic (FRP)
5 Plastic
6 Equivalent Technology
9 Other*

**PIPING LOCATION**
0 None
1 Aboveground
2 Underground
3 Aboveground/Underground Combination

**PIPING TYPE**
0 None
1 Steel/Iron
2 Galvanized Steel
3 Stainless Steel Alloy
4 Fiberglass Coated Steel
5 Fiberglass Reinforced Plastic (FRP)
6 Plastic
9 Other*

**INTERNAL PROTECTION: Tank/Piping**
0 None
1 Epoxy Liner
2 Rubber Liner
3 Fiberglass Liner (FRP)
4 Glass Liner
9 Other*

**EXTERNAL PROTECTION: Tank/Piping**
0 None
1 Painted/Asphalt Coating
2 Sacrificial Anode
3 Impressed Current
4 Fiberglass
5 Jacketed
6 Wrapped (Piping)
9 Other*

**SECONDARY CONTAINMENT: Tank/Piping**
0 None
1 Diking
2 Vault (w/access)
3 Vault (w/o access)
4 Double-Walled
5 Synthetic Liner
6 Remote Impounding Area
7 Excavation/Trench Liner
9 Other*

**LEAK DETECTION**
0 None
1 Electronic
2 Vapor Well
3 Groundwater Well
4 In-tank System
5 Concrete Pad w/channels
9 Other*

**SPILL/OVERFILL PREVENTION**
0 None
1 Float Vent Valve
2 High Level Alarm
3 Automatic Shut-off
4 Product Level Gauge
5 Catch Basin
9 Other*

**SUBSTANCE DESCRIPTION**
1 Single Hazardous Substance on DEC List
2 More than one Hazardous Substance on DEC List

* If Other, please list on separate sheet including the Tank Number

# METCO PERKIN ELMER

**Material Safety Data Sheet**

METCO PERKIN-ELMER
1101 PROSPECT AVENUE
P.O. BOX 1006
WESTBURY, NEW YORK 11590-0201
516-334-1300
EMERGENCY CONTACT CHEMTREC 800-424-9300
CALLS FROM OUTSIDE THE US 202-483-7616

**Product:** METCO CLEANING SOLVENT

**MSDS No:** METCO / 50-259
**Revision:** 2
**Date:** July 19, 1991

## SECTION I. MATERIAL IDENTIFICATION

**Trade/Material Name:** METCO CLEANING SOLVENT

**Description:** Cleaning Solvent

Original Date of Issue: September 7, 1987

## SECTION II. INGREDIENTS AND HAZARDS

| Ingredient Name: | CAS Number: | Percent: | Exposure Limits: |
|---|---|---|---|
| 1,1,1, Trichloroethane | 71-55-6 | 100 % | OSHA PEL-TWA: 350PPM<br>OSHA PEL-STEL: 450PPM<br>ACGIH TLV-TWA: 350PPM<br>ACGIH TLV-STEL: 450PPM |

* INDICATES TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) AND SUPPLIER NOTIFICATION REQUIREMENTS (40 CFR PART 372).

## SECTION III. PHYSICAL DATA

**Appearance & Odor:** Clean, Colorless Liquid; Ether - like odor.

**Boiling point:** 74.1°c/165.4°F
**Vapor pressure:** 104.4mmHg
**Water solubility (%):** Insoluble
**Vapor density (air=1):** 4.54
**pH:** 6.0 to 7.5

**Evaporation rate:** 0.35
**Specific gravity ($H_2O$=1):** 1.300-1.320 @ 25C
**Melting point:** (1 Freezing) -49°F/-45°C
**% volatile by volume:** 100
**Molecular weight:** N/A

## SECTION IV. FIRE AND EXPLOSION DATA

**Flash Point (method):** None when tested in accordance with DOT requirements. **Limits: LEL %:** 7% **UEL %:** 15%

**Extinguishing Media:** Water, dry chemical or carbon dioxide.

**Unusual fire or explosion hazards:** Vapors concentrated in a confined or poorly ventilated area can be ignited upon contact with a spark, flame or high intensity source of heat. This can occur at concentrations ranging between 7-15% by volume. Decomposition or burning can produce hydrogen chloride and possibly traces of

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Product: METCO CLEANING SOLVENT

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FIRE AND EXPLOSION DATA continued from page 1

phosgene. 1,1,1 - Trichloroethane is classified as a poison.

**Special fire-fighting procedures:** Fire fighters should wear a NIOSH/MSHA approved pressure-demand, self-contained breathing apparatus for possible exposure to hydrogen chloride and possible traces of phosgene.

## SECTION V. REACTIVITY DATA

Material is stable Hazardous polymerization will not occur

**Chemical incompatibilities:** Avoid contamination with caustic soda, caustic potash, or oxidizing materials. Shock sensitive explosive may be formed.

**Conditions to avoid:** Avoid open flames, hot surfaces or electric arcs.

**Hazardous decomposition Products:** Hydrogen Chloride and possible traces of phosgene.

## SECTION VI. HEALTH HAZARD INFORMATION

**Summary of risks:**

1,1,1 TRICHLOROETHANE: Headache, lassitude, central nervous system depression, poor equilibrium, irritated eyes, dermatitis, cardiac arrhythemias. Long term overexposure may cause liver/kidney injury.

**Medical conditions which may be aggravated by contact:** Consult a physician.

**Target organs:** Skin, Central Nervous System, Cardiovascular System, Eyes, Liver, Kidneys.

**Primary entry route(s):** Inhalation, Ingestion, Contact.

**Signs & symptoms of overexposure:**

**Eye contact:** Will cause irritation and pain.

**Skin contact:** May cause irritation or dermatitis.

**Inhalation:** Irritation of the respiratory system, dizziness, nausea, lightheadedness, headache, loss of coordination and equilibrium, unconsiousness and even death in confined or poorly ventilated areas.

**Ingestion:** DO NOT TAKE INTERNALLY. Swallowing may cause injury or death.

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**MSDS No:** METCO / 50-259
**Revision:** 2
**Date:** July 19, 1991

HEALTH HAZARD INFORMATION continued from page 2

**First aid:**

**Eye contact:** Flush eye with plenty of water for at least 15 minutes. If irritation occurs, consult a physician.

**Skin contact:** Wash with plenty of soap and water to remove material. Remove cotaminated clothing and shoes as soon as possible. If irritation occurs, consult a physician.

**Inhalation:** Remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Call a physician.

**Ingestion:** If consious, drink large quantities of water. DO NOT induce vomiting. Take immediately to a hospital or physician. If inconscious, or in convulsions, take immediately to a hospital. DO NOT give anything by mouth to an unconscious person.

## SECTION VII. SPILL, LEAK AND DISPOSAL PROCEDURES

**Spill / Leak procedures:** Immediately evacuate the area and provide maximum ventilation. Unprotected personnel should move upwind of spill. Only personnel equipped with proper respirator and skin/eye protection should be permitted in area. Dike areas to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover or absorb spilled material with sawdust or vermiculite and sweep into closed containers for disposal. After all visible traces have been removed, thoroughly wet vacuum the area. DO NOT flush to sewer. If area of spill is porous, remove as much as contaminated earth and gravel, etc., as necessary and place in closed containers for disposal.

**Waste management / Disposal:** Contaminated sawdust, vermiculite or porous surface must be disposed of in a permitted hazardous waste management facility. Recovered liquids may be reprocessed or incinerated or must be treated in a permitted waste management facility. Care must be taken when usong or disposing of chemical materials and/or their containers to prevent environmental contamination. It is your duty to dispose of the chemical materials and/or their containers in accordance with federal, state, or local laws/regulations regarding disposal.

## SECTION VIII. SPECIAL PROTECTION INFORMATION

**Personal protective equipment:**

**Goggles:** Splash proof goggles are recommended for the process indicated.

**Gloves:** Polyethylene, neophane, or polyvinal alcohol gloves are recommended.

METCO PERKIN-ELMER
1101 PROSPECT AVENUE
P.O. BOX 1006
WESTBURY, NEW YORK 11590-0201
516-334-1300
EMERGENCY CONTACT CHEMTREC 800-424-9300
CALLS FROM OUTSIDE THE US 202-483-7616

Product: METCO CLEANING SOLVENT

MSDS No: METCO / 50-259
Revision: 2
Date: July 19, 1991

SPECIAL PROTECTION INFORMATION continued from page 3

**Respirator:** For emergencies or working in confined areas, wear self-contained breathing apparatus or supplies air respirator protection. In other circumstances involving potential overexposure, use NIOSH/MSHA-approved organic vapor respirator. (Observe limitations directed by manufacturer). Respiratory protection program must be in accordance with 29CFR 1910.134.

**Other:** Ear protection must be worn when the operator is subjected to excessive noise levels. (See OSHA Requirements.) Aluminized apron is to be worn during plasma spray process. Safety shower and eye-wash fountain in immediate area. Personnel protective clothing and use of equipment must be in accordance with 29CFR 1910.132.

**Workplace considerations:**

**Ventilation:** Ventilation equipment designed to create an air velocity of 200 FPM.

**Safety stations:**
Eye wash station is recommended.

## SECTION IX. SPECIAL PRECAUTIONS

**Storage segregation:** Store away from incompatibles. Keep containers closed when not in use. Do not store in open, unlabled or mislabled containers.

**Special handling / storage:** Cool and dry area. Do not use in poorly ventilated or confined areas. Liquid oxygen or other strong oxidants may form explosive mixtures with METCO Cleaning Solvent. This material or its vapors when in contact with flames, hot glowing surfaces or electric arcs can be decomposed to form hydrogen chloride gas and traces or phosgene.

**Other precautions:** Avoid oral ingestion and excessive skin contact. Do not drink, eat, or smoke in work areas. Avoid prolonged or repeated breathing of vapors. High vapor concentrations can cause dizziness or unconsciousness. Long term overexposure may cause liver/kidney damage.

**Prepared/revised by:** METCO

July 19, 1991

THE INFORMATION CONTAINED HEREIN IS BASED ON AVAILABLE DATA AND TESTS AND IS BELIEVED TO BE ACCURATE. IT IS PREPARED SOLEY FOR YOUR CONSIDERATION AND VERIFICATION SINCE CONDITIONS OF USE, STORAGE AND HANDLING MAY VARY.

# MATERIAL SAFETY DATA SHEET

8-10-81

CHEMICAL NAME AND SYNONYMS:

CHEMICAL FAMILY: | TRADE NAME: 144 RESIN CORE SOLDER

FORMULA: | D.O.T. SHIPPING CLASS: NON-HAZARDOUS

## I. PHYSICAL DATA

| | | | |
|---|---|---|---|
| BOILING POINT (°F) | N/A | SPECIFIC GRAVITY (WATER = 1) | 1.08 |
| VAPOR PRESSURE ( ) | N/A | PERCENT VOLATILE (BY VOLUME) | 4.5 |
| VAPOR DENSITY (AIR = 1) | N/A | EVAPORATION RATE ( = 1) | N/A |
| SOLUBILITY IN WATER (% by wt.) | Insoluble | Softening point (drop method) | 149°F |
| APPEARANCE AND ODOR | SOLID AMBER CORE INSIDE SOLDER WIRE | | |

## II. HAZARDOUS INGREDIENTS

| MATERIAL | % | TLV ( ) | C.A.S. REGISTRY # |
|---|---|---|---|
| ROSIN* | 95 | N/A | 8050-09-7 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

*ROSIN MAY DECOMPOSE DURING HEATING TO LIBERATE ABOUT 5% TURPENTINE (TLV=100ppm). SOME ROSIN IS CARRIED UP IN SMOKE. NO LEAD FUMES ARE LIBERATED AT SOLDERING TEMPERATURES BELOW 1000°F.

## III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (C.O.C.) 420°F | FLAMMABILITY LIMITS IN AIR (% by volume) | LOWER: N/A | UPPER: N/A

| EXTINGUISHING MEDIA: | | | | | | | |
|---|---|---|---|---|---|---|---|
| WATER | | CARBON DIOXIDE | x | ALCOHOL FOAM | x | DRY CHEMICAL | x |

SPECIAL FIRE FIGHTING PROCEDURES: NONE

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

NFPA RATING: 1 / 1 0

The information contained herein is based on data considered accurate and given in good faith but no warranty, expressed or implied, is made.

EMERGENCY PHONE NUMBER (312) 235-1600

KESTER SOLDER
Lillon
4201 WRIGHTWOOD AVENUE
CHICAGO, ILLINOIS 60639

569.2/81

## IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: Not established

EFFECTS OF OVER-EXPOSURE: Smoke during soldering can irritate eyes and respiratory tract. Rosin is an allergen - may cause rash, headache or throat irritation in a sensitive person.

EMERGENCY AND FIRST AID PROCEDURES.

EYE CONTACT: Flush thoroughly with water and get medical attention.

SKIN CONTACT: Wash with soap and water.

INHALATION: Remove to fresh air.

INGESTION: N/A

## V. REACTIVITY DATA

| | | | |
|---|---|---|---|
| STABILITY: | UNSTABLE | | CONDITIONS TO AVOID: |
| | STABLE | x | |

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Small amount of turpentine. May emit hydrogen chloride fumes (< 0.5% of flux) during soldering.

| | | | |
|---|---|---|---|
| HAZARDOUS POLYMERIZATION: | MAY OCCUR | | CONDITIONS TO AVOID: |
| | WILL NOT OCCUR | x | |

## VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: N/A

WASTE DISPOSAL METHOD: N/A

## VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE): Usually not required

| | | |
|---|---|---|
| VENTILATION | LOCAL EXHAUST: Remove smoke from breathing area | SPECIAL: |
| | MECHANICAL (GENERAL): | OTHER: |

PROTECTIVE GLOVES: No | EYE PROTECTION: Safety glasses

OTHER PROTECTIVE EQUIPMENT: None

## VIII. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Avoid eye contact with hot flux. Avoid breathing smoke during soldering. Wash hands before eating or smokin after handling solder wire.

OTHER PRECAUTIONS: Do not place flux cored solder wire into a hot solder pot. The flux may ignite.

miller-stephenson

# Material Safety Data Sheet

## IDENTIFICATION

Name:
Epoxy Patch Kit 907B, Hardener

Chemical Family:
Polyamide Resin

Synonyms:
Epoxy Co-Reactant

Formula:
Not applicable

CAS Name:
Not applicable

CAS Registry No.
37189-83-6

Manufacturer/Distributor:
Miller-Stephenson Chemical Co.

Medical Emergency Phone:
(203) 797-2212

Address:
George Washington Highway
Danbury, Conn. 06810

Transportation Emergency Phone:
(800) 424-9300

## PHYSICAL DATA

Boiling Point (°F): Decomposes

Percent Volatile by Volume: 0

Density: 1.1g/cc

Vapor Pressure: Not applicable

Vapor Density (Air = 1): N/A

Solubility in $H_2O$: None

Evaporation Rate (CCl4=1): N/A

Form: Liquid

Appearance: Ivory viscous liquid

Color: Ivory

Odor: Mild odor

## HAZARDOUS COMPONENTS

Material(s):
Polyamide Resin

Approximate % :
60-100

HAZARDOUS REACTIVITY

Stability: Material is stable.

Incompatibility: Strong oxidizing agents.

Decomposition: No hazardous decomposition products known.

Polymerization: Will not occur.

FIRE AND EXPLOSION DATA

Flash Point: 265°F

Method: Not applicable

Autoignition Temperature:
Not determined

Flammable Limits in Air, % by Vol.
Lower: Unknown
Upper: Unknown

Autodecomposition Temperature:
Not determined

Extinguishing Media: Dry chemical, foam.

Special Fire Fighting Instructions: None

HEALTH HAZARD INFORMATION

Principal Health Hazards:

Inhalation: Excessive inhalation can cause illness.

Skin: Prolonged or repeated exposure may cause rash.

Eye: Contact will cause irritation and redness.

Oral: Ingestion is to be avoided.

Exposure Limits:

TLV: Not established.

Safety Precautions: Disposable plastic gloves, safety glasses.

First Aid:

Inhalation: Use adequate ventilation. If not breathing, move to fresh air, call a physician.

Eye: Flush with water for 15 minutes, then consult a physician.



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Skin: Wash with 5% acetic acid, emulsify and flush away with warm water. Repeat, then wash with soap and water.

Oral: Consult with a physician.

Medical Conditions Possibly Aggravated by Exposure:

Prolonged contact may aggravate skin conditions.

PROTECTION INFORMATION:

Generally Applicable Control Measures: Maintain good housekeeping standards, keep container closed.

Personal Protective Equipment: Use disposable plastic gloves and safety glasses when utilizing this product.

DISPOSAL INFORMATION:

Spill, Leak or Release: Soak up in absorbent material, scrape up, transfer to waste container. Residue may be scrubbed with 5% acetic acid to emulsify, rinse with very hot water.

Waste Disposal: Incinerate or bury in approved landfill. This product is not a hazardous waste under the resource conservation and recovery act (RCRA).

SHIPPING INFORMATION

Domestic - Other Than Air (DOT)

Proper Shipping Name: Liquid epoxy adhesive
Hazard Class: Non-flammable liquid
UN No.:
DOT Label:
DOT Placard: NOIBN

International Water or Air (IMO/ICAO)

Proper Shipping Name: Liquid epoxy adhesive
Hazard Class: Not a hazardous material
UN No.:
IMO/ICAO Label:



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Other Information

Shipping Containers: Industrial size tube.

Storage Conditions: Store at room temperature. Rotate stock to one year shelf life.

Date Revised: 1/86

Person Responsible: Jeffrey A. Falk
Miller-Stephenson Chemical Co., Inc.
George Washington Highway
Danbury, Conn. 06810
(203) 743-4447



P2SUL002877

miller-stephenson

# Material Safety Data Sheet

## IDENTIFICATION

**Name:**
Epoxy Patch Kit 907A, Resin

**Chemical Family:**
Epoxy resin

**Synonyms:**
Resin Co-Reactant

**Formula:**
Not applicable

**CAS Name:**
Not applicable

**CAS Registry No.**
Not applicable

**Manufacturer/Distributor:**
Miller-Stephenson Chemical Co.

**Medical Emergency Phone:**
(203) 797-2212

**Address:**
George Washington Highway
Danbury, Conn. 06810

**Transportation Emergency Phone:**
(800) 424-9300

## PHYSICAL DATA

**Boiling Point (°F):** >500 @760mm Hg

**Percent Volatile by Volume:** 0.5

**Density:** 1.5 g/cc

**Vapor Pressure:** <0.1 (mm Hg) @22°C

**Vapor Density (Air = 1):** N/A

**Solubility in $H_2O$:** None

**pH Information:** N/A

**Evaporation Rate (CCl4=1):** N/A

**Form:** Liquid

**Appearance:** Heavy viscosity blue liquid

**Color:** Blue

**Odor:** Mild characteristic odor

## HAZARDOUS COMPONENTS

**Material(s):**

**Approximate % :**

This product has no material (in the amount 1.0% or greater) listed in 29CFR1910 Sub Part Z or the California Director's List which may be a hazardous airborne contaminant unless the cured material is ground, sanded or machined.

HAZARDOUS REACTIVITY

**Stability:** Stable

**Incompatibility:** Avoid containation with alkalies, acids, amino, water and strong oxidizing agents.

**Decomposition:** Not applicable

**Polymerization:** Will not occur as is but may occur with excess hardner.

FIRE AND EXPLOSION DATA

**Flash Point:** 450°F **Method:** COC

**Autoignition Temperature:**
Not determined

**Flammable Limits in Air, % by Vol.**
Unknown

**Autodecomposition Temperature:**
Not determined

**Extinguishing Media:** CO2 or dry chemical. Large fires use foam.

**Special Fire Fighting Instructions:** Water may be ineffective. Avoid breathing smoke.

HEALTH HAZARD INFORMATION

Principal Health Hazards:

**Inhalation:** Excessive inhalation can cause illness.

**Skin:** Repeated or prolonged exposure may cause irritation and rash.

**Eye:** Burning feeling and redness.

**Oral:** Ingestion is to be avoided.

Exposure Limits:

TLV not yet established

**Safety Precautions:** Disposable plastic gloves, safety glasses.



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First Aid:

**Inhalation:** Use adequate ventilation. If not breathing, move to fresh air, call a physician.

**Eye:** Flush with water and consult a physician.

**Skin:** Wash with soap and water, remove contaminated clothing.

**Oral:** Consult with a physician.

Medical Conditions Possibly Aggravated by Exposure:

Prolonged contact may aggravate skin conditions.

PROTECTION INFORMATION:

**Generally Applicable Control Measures:** Maintain good housekeeping standards, keep containers closed.

**Personal Protective Equipment:** Safety glasses, plastic gloves.

DISPOSAL INFORMATION:

**Spill, Leak or Release:** Scrape up, transfer to waste container. If using solvent to clean up residue, be aware of solvent safety precautions.

**Waste Disposal:** Incinerate or bury in approved landfill. Not a hazardous waste under the resource conservation and recovery act (RCRA).

SHIPPING INFORMATION

Domestic - Other Than Air (DOT)

**Proper Shipping Name:** Liquid epoxy adhesive
**Hazard Class:** Non-flammable liquid
**UN No.:**
**DOT Label:**
**DOT Placard:** NOIBN

International Water or Air (IMO/ICAO)

**Proper Shipping Name:** Liquid epoxy adhesive
**Hazard Class:** Not a hazardous material
**UN No.:**
**IMO/ICAO Label:**

Other Information

**Shipping Containers:** Industrial size tube

**Storage Conditions:** Store at room temperature. Rotate stock to one year shelf life.

**Date Revised:** 1/86

**Person Responsible:** Jeffrey A. Falk,
Miller-Stephenson Chemical Co., Inc.
George Washington Highway
Danbury, Conn. 06810
(203) 743-4447



P2SUL002881

Form Approved OMB No.: 2070-0093

Approval Expires: 01/94

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: "PI Burden" and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**EPA FORM R**

**PART I. FACILITY IDENTIFICATION INFORMATION**

(This space for your optional use.)

| | | | |
|---|---|---|---|
| 1. | 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [X] No (Do not answer 1.2; Go to question 1.3.) | 1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [ ] Unsanitized | 1.3 Reporting Year 1990 |

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Patrick A. Tighe — Superintendent, Facilities Coordination

Signature: Patrick A. Tighe — Date signed: June 28, 1991

**3. FACILITY IDENTIFICATION**

3.1
- Facility or Establishment Name: Metco Division Perkin-Elmer Corporation
- Street Address: 220 Miller Place
- City: Hicksville — County: Nassau
- State: New York — Zip Code: 11801
- TRI Facility Identification Number: 11801PRKNL220MI

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY
2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [X] Part of a facility.

3.3 Technical Contact: Patrick A. Tighe — Telephone Number (include area code): (516) 334-1300 Ext. 495

3.4 Public Contact: Same as 3.3 — Telephone Number (include area code):

3.5 SIC Code (4 digit): a. 3399 b. c. d. e. f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 086 | 13 | 00 | 003 | 47 | 00 |

3.7 Dun & Bradstreet Number(s): a. 05-773-1663 b.

3.8 EPA Identification Number(s) (RCRA I.D. No.): a. NYD981558570 b.

3.9 NPDES Permit Number(s): a. b.

3.10 Receiving Streams or Water Bodies (enter one name per box): a. N/A b. c. d. e. f.

3.11 Underground Injection Well Code (UIC) Identification Number(s): a. N/A b.

**4. PARENT COMPANY INFORMATION**

| | | | |
|---|---|---|---|
| 4.1 | Name of Parent Company: Perkin-Elmer Corporation | 4.2 | Parent Company's Dun & Bradstreet Number: 00-118-4480 |

*(Important: Type or print; read instructions before completing form.)*



EPA

# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

### 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

### 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| N/A | | | |
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R
## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

**1. CHEMICAL IDENTITY** (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) 7440-47-3 |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) Chromium Powder |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

**2. MIXTURE COMPONENT IDENTITY** (Do not complete this section if you complete Section 1.)

2. Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

**3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY** (Check all that apply.)

| | | | | | | |
|---|---|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | b. [ ] Import | If produce or import: c. [ ] For on-site use/processing | e. [ ] As a byproduct | d. [ ] For sale/ distribution; f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | d. [ ] Repackaging only | b. [ ] As a formulation component | | c. [X] As an article component |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | | b. [ ] As a manufacturing aid | | c. [ ] Ancillary or other use |

**4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR**

[0][3] (enter code)

**5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE**

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/year) A.1 Reporting Ranges 1-10 / 11-499 / 500-999 | A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 Fugitive or non-point air emissions | 5.1a | [ ] [ ] [ ] | NA | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [ ] [ ] [ ] | 1400 | 5.2b [C] | |
| 5.3 Discharges to receiving streams or water bodies (Enter letter code from Part I Section 3.10 for stream(s) in the box provided.) 5.3.1 [ ] | 5.3.1a | [ ] [ ] [ ] | NA | 5.3.1b [ ] | 5.3.1c % |
| 5.3.2 [ ] | 5.3.2a | [ ] [ ] [ ] | NA | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [ ] [ ] [ ] | NA | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection | 5.4a | [ ] [ ] [ ] | NA | 5.4b [ ] | |
| 5.5 Releases to land 5.5.1 On-site landfill | 5.5.1a | [ ] [ ] [ ] | NA | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [ ] [ ] [ ] | NA | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [ ] [ ] [ ] | NA | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [ ] [ ] [ ] | NA | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/yr) A.1 Reporting Ranges 1-10 / 11-499 / 500-999 | A. Total Transfers (pounds/yr) A.2 Enter Estimate | B. Basis of Estimate (enter code) | C. Type of Treatment/ Disposal (enter code) |
|---|---|---|---|---|
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) [1] | [ ] [ ] [ ] | NA | 6.1.1b | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) [2] | [ ] [ ] [ ] | NA | 6.2.1b | 6.2.1c [M] |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) [2] | [ ] [ ] [ ] | NA | 6.2.2b | 6.2.2c [M] |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) [2] | [ ] [ ] [ ] | NA | 6.2.3b | 6.2.3c [M] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

[NA] Not Applicable (NA) - Check if no on-site treatment is applied to any waste stream containing the chemical or chemical catagory

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a | 7.1b | 7.1c | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a | 7.2b | 7.2c | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a | 7.3b | 7.3c | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a | 7.4b | 7.4c | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a | 7.5b | 7.5c | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a | 7.6b | 7.6c | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a | 7.7b | 7.7c | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a | 7.8b | 7.8c | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a | 7.8b | 7.9c | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a | 7.10b | 7.10c | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal: Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| [M][7] | _____ | _____ | [ ] + [ ] - _____ % | [ ] [ ] | [R] |

EPA

# EPA FORM R

## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Release (pounds/yr) A.1 Reporting Ranges 1-10 / 11-499 / 500-999 | A. Total Release (pounds/yr) A.2 Enter Estimate | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|
| 5.3 Discharges to receiving streams or water bodies 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| (Enter letter code from Part I Section 3.10 for stream(s) in the box provided.) 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |
| 5.3.___ ☐ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b ☐ | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/yr) A.1 Reporting Ranges 1-10 / 11-499 / 500-999 | A. Total Transfers (pounds/yr) A.2 Enter Estimate | B. Basis of Estimate (enter code in box provided) | C. Type of Treatment/ Disposal (enter code in box provided) |
|---|---|---|---|---|
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 ☐ | [ ] [ ] [ ] | | 6.1.___b ☐ | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M☐☐ |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 ☐ | [ ] [ ] [ ] | | 6.2.___b ☐ | 6.2.___c M☐☐ |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

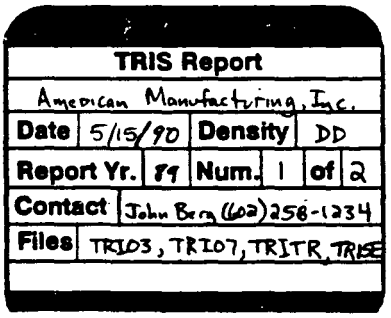
| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a ☐ | 7.___b ☐☐☐ | 7.___c ☐ | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

## How to Submit Reports on Diskette

If you are submitting reports on magnetic diskette to EPA you must enclose a certification cover letter signed by the official listed in Section 2 of Part I of the Form R (Certification Name and Official Title) for each separate facility. The format and content of this letter is shown below:

> Enclosed please find two (2) microcomputer diskettes (numbers 1 and 2) containing toxic chemical release reporting information for Pirx-Lewis, Inc., Battery Products Division, as required under section 313, Title III of the Superfund Amendments and Reauthorization Act of 1986.
>
> A total of two (2) reports are included from our facility, concerning the following chemicals:
>
> | Chemical Name | Report Number | CAS Number |
> |---|---|---|
> | Lead compounds | 00001 | NA |
> | Zinc | 00002 | 7440-66-6 |
>
> Our data processing contact is Jeffrey Mills, who can be reached at (505) 752-5369. Mr. Mills is available should any questions or problems arise in your processing of these diskettes.
>
> I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

A label must be attached to each diskette (not jacket) which may be typed or legibly handwritten. Any media submitted without a proper label attached will not be processed and will be returned to the submitter. The format and content of this label is shown below:




At left is a sample diskette label for American Manufacturing, which has two double density diskettes in its package. The package contains information on two of American's facilities, but the labels should only list the parent company, American Manufacturing, and the data processing contact at American. Diskette 1 contains the files TRI03, TRI07, TRISE, and TRITR.

All magnetic media packages must include self-addressed, postage paid return packaging sufficient to allow EPA to return unreadable media to the facility. The type of packaging and shipping used for magnetic media are left to the discretion of the submitting facility. Please send complete magnetic media along with a cover letter (from each submitting facility containing an original certification signature ) to:

EPCRA Reporting Center
P.O. Box 23779
Washington, DC 20026-3779
Attn: Toxic Chemical Release Inventory Magnetic Media Submission

Printed on Recycled Paper

# SULZER METCO

## Material Safety Data Sheet


**SULZER METCO (WESTBURY), INC.**

**1101 Prospect Avenue**
**PO Box 1006**
**Westbury, NY 11590-0201**
**Phone: (516) 334-1300**


**Product:** METCOSEAL ST-1

**MSDS No.:** 50-270
**Revision No.:** 4
**Revision Date:** December 20, 1994
**Original Date of Issue:** September 7, 1987

**EMERGENCY CONTACT: CHEMTREC** 800-424-9300
**CALLS OUTSIDE THE UNITED STATES:** 202-483-7616

## SECTION 1 MATERIAL IDENTIFICATION

**Trade/Material Name:** METCOSEAL ST-1

**Description:** Thinner

**Other Designation:** LACQUER THINNER

## SECTION II COMPOSITION AND TOXICITY

| Composition | % | CAS# | OSHA PEL | ACGIH TLV | Toxicity |
|---|---|---|---|---|---|
| Methyl Isobutyl Ketone * + | 44 | 108-10-1 | 50 ppm TWA<br>75 ppm STEL | 50 ppm TWA<br>75 ppm STEL | |
| Toluene * + | 43 | 108-88-3 | 100 ppm TWA<br>150 ppm STEL | 50 ppm TWA<br>skin | |
| Diisobutyl Ketone * | 8 | 108-83-8 | 25 ppm TWA | 25 ppm TWA | |
| Isopropyl Alcohol Anhydrous * | 4 | 67-63-0 | 400 ppm TWA<br>500 ppm STEL | 400 ppm TWA<br>500 ppm STEL | |

* Indicates toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments & Reauthorization Act (SARA) & supplier notification requirements (40CFR Part 372).

¤ Contains no asbestos and <1% crystalline silica.

\+ Indicates on the list of Hazardous Air Pollutants that are regulated under Section 112 of the EPA Clean Air Act, 1990.

## SECTION III — PHYSICAL DATA

| | | | |
|---|---|---|---|
| **Boiling Point:** | 181 - 334° F | **Specific Gravity ($H_2O$ = 1):** | 0.79 |
| **Vapor Pressure (mmHg):** | 2 - 33 mm | **Melting Point:** | N/A |
| **Vapor Density (Air=1):** | Heavier than air | **Percentage Volatiles:** | 100 |
| **Solubility in water (%):** | 0.05 - Miscible | **Evaporation Rate:** | Slower than Ether |
| **Appearance and Odor:** | Colorless liquid, mild sweet odor | **pH of Solution:** | N/A |

## SECTION IV — FIRE AND EXPLOSION HAZARD DATA

**Flash Point (Method Used):** 40° F (CC)

**Flammable Limits:**
**LEL %:** 0.8 **(% by VOLUME)** **UEL%:** 12.7 **(% by VOLUME)**

**Extinguishing Media:** Carbon dioxide, dry chemical, foam.

**Special Fire Fighting Procedures:** Water may not be effective in fighting liquid fires. Water may be used to cool containers when exposed to extreme heat to prevent explosion. Use NIOSH/MSHA approved self contained breathing apparatus and full protective clothing if involved in a fire.

POS NO22105 ←

**Unusual Fire and Explosive Hazards:** Isolate from heat, sparks, flame, electric motors, static discharge, or other sources of ignition. Vapors are heavier than air. Methyl isobutyl ketone is a flammable liquid. Keep away from heat, sparks, flame and other sources of ignition. Isopropyl alcohol anhydrous is a flammable liquid. Keep away from heat, sparks, flame or other sources of ignition. Vapors may travel considerable distances to ignition source and flash back. Closed containers may explode if exposed to heat.

## SECTION V — REACTIVITY DATA

**Material is stable. Hazardous polymerization will not occur.**

**Incompatibility (Materials to Avoid):** Oxidizers, copper, pyridine, acetaldehyde, chlorine, ethylene oxide, acids, isocyonates, amines, ammonia and caustics. Methyl isobutyl ketone may be incompatible with strong oxidizers. Isopropyl alcohol anhydrous is incompatible with oxidizers, acetaldehyde, chlorine, acids, ethylene oxide and isocyanates.

**Hazardous Decomposition Products:** Carbon dioxide, carbon monoxide, oxides of nitrogen. Hazardous decomposition products for methyl isobutyl ketone and isopropyl alcohol anhydrous are carbon monoxide, carbon dioxide.

## SECTION VI — HEALTH HAZARD DATA

| COMPONENTS | SUMMARY OF RISKS |
|---|---|
| METHYL ISOBUTYL KETONE: | Hazard by inhalation, ingestion, skin and eye contact. Inhalation and ingestion may cause irritation to the mucous membranes, headache, narcosis and possible coma. Skin contact may cause dermatitis. Eye contact may cause irritation to the eyes.<br><br>Target Organ(s): Central Nervous System, respiratory system, skin, eyes. |

TOLUENE: Hazard by inhalation, ingestion, skin absorption, skin and eye contact. Inhalation, ingestion and skin absorption may cause fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, lacrimation, nervousness, muscle fatigue, insomnia. Anemia leucopenia and enlarged liver may be found in rare cases. Skin contact may cause dermatitis. Eye contact may cause irritation to the eyes.

Target Organ(s): Central Nervous System, liver, kidneys, skin, eyes.

DIISOBUTYL KETONE: Hazard by inhalation, skin and eye contact. Inhalation may cause nose and throat irritation, headache, dizziness. Skin contact may cause dermatitis. Eye contact may cause irritation to the eyes Narcotic in high concentrations.

Target Organ(s): Respiratory system, skin eyes.

ISOPROPYL ALCOHOL: Hazard by inhalation, skin and eye contact. Inhalation may cause irritation to the eyes and mucous membranes, drowsiness, dizziness, headache. Skin contact may cause dermatitis to the skin. Eye contact may cause irritation to the eyes.

Target Organ(s): Respiratory system, skin, eyes.

**Medical Conditions Which May be Aggravated by Contact:** Consult a physician.

**Primary Entry Route(s):** Inhalation, ingestion, skin absorption, skin and eye contact.

## SIGNS AND SYMPTOMS OF OVEREXPOSURE

**Eye Contact:** Possible irritation.

**Skin Absorption:** Possible fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, lacrimation, muscle fatigue, insomnia.

**Skin Contact:** Possible dermatitis, irritation.

**Inhalation:** Possible irritation to the eyes and mucous membranes, drowsiness, dizziness, headache, fatigue, weakness, confusion, euphoria, dilated pupils, lacrimation, muscle fatigue, insomnia.

**Ingestion:** Possible fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, lacrimation, muscle fatigue, insomnia.

## FIRST AID

**Eye Contact:** Flush eye with water for at least 15-20 minutes while holding eyelid open. If irritation persists, consult a physician.

**Skin Contact:** Remove contaminated clothing and wash skin with soap and water. If irritation persists, consult a physician.

**Inhalation:** Expose to fresh air. Consult a physician.

**Ingestion:** Drink water. Consult a physician.

## SECTION VII SPILL, LEAK AND DISPOSAL PROCEDURES

**Spill/Leak Procedures:** Remove all sources of ignition, avoid breathing vapors, ventilate area and remove with inert absorbant and non-sparking tools. Dispose of in accordance with local, state and federal regulations. Before attempting to clean up, see Section II.

**Waste Management and Disposal:** Dispose of in accordance with local, state and federal regulations.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye (Specify):** Safety glasses, chemical splash goggles/face shield.

**Gloves:** Butyl gloves.

**Respirator:** Use NIOSH/MSHA approved air line type respirators or hoods for enclosed and confined areas. Air purifying respirators may be used for other areas.

**Clothing/Equipment:** Launder clothing before reuse.

**WORKPLACE CONSIDERATIONS**

**Ventilation:** Provide general dilution or local exhaust ventilation to keep TWA and LEL below acceptable limits and to remove decomposition products.

**Safety Stations:** Eye wash station(s) is/are recommended.

**Other:** Wash facilities are recommended.

## SECTION IX HANDLING AND STORAGE PRECAUTIONS

**Storage/Handling:** Flammable. Store away from incompatibles such as oxidizers, acids, alkali metals, nitrates. Do not store in high temperature areas. Keep containers closed. Maintain adequate ventilation in storage areas. Store in a manner to minimize punctures and breakage of containers. Containers should be grounded when pouring. Avoid free fall of liquid in excess of a few inches. Make sure the drum is completely empty before attempting to weld or braze. The drum should be industrially cleaned prior to reuse. Do not flame cut, braze, or weld without a NIOSH approved respirator or appropriate ventilation.

**Other Precautions:** Do not ingest. Avoid inhalation, prolonged or repeated skin contact, or contact with eyes.

*While this information is furnished in good faith, no guaranty is made as to accuracy. This material is for the Thermal Spraying Process, and relevant instructions should be consulted before use. The user assumes all risk in connection with the use of this material. SULZER METCO shall in no event be liable for special, incidental or consequential damages in connection with this information, or for any damage or injury caused by this material if used for any other purpose than the Thermal Spray Process, or if proper safety and health practices are not followed.*

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# FORM R TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| **Toxic Chemical, Category, or Generic Name** |
| ALUMINUM POWDER |

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA Reporting Center
P.O. Box 3348
Merrifield, VA 22116-3348
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

**IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**

For EPA use only

## PART I. FACILITY IDENTIFICATION INFORMATION

**SECTION 1. REPORTING YEAR**

19 92

**SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?

[ ] Yes (Answer question 2.2; Attach substantiation forms)  [X] No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy: [ ] Sanitized [X] Unsanitized

**SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)**

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official

JOE MACRI, MANAGER FACILITIES

Signature: Joseph Macri

Date Signed: June 30, 1993

**SECTION 4. FACILITY IDENTIFICATION**

4.1

Facility or Establishment Name: METCO DIVISION PERKIN-ELMER

TRI Facility ID Number: 11590PRKNL1101P

Street Address: 1101 Prospect Avenue

City: Westbury

County: Nassau

State: New York

Zip Code: 11590

Mailing Address (if different from street address):

City:

State:

Zip Code:

PUT LABEL HERE

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# EPA FORM R

## PART I. FACILITY IDENTIFICATION INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 4. FACILITY IDENTIFICATION (Continued)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4.2 | This report contains information for: (Important: check only one) | a. ☐ An entire facility | | | b. ☒ Part of a facility | | | |
| 4.3 | Technical Contact | Name: JOE MACRI | | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.4 | Public Contact | Name: JOE MACRI | | | | Telephone Number (include area code): (516) 334-1300 | | |
| 4.5 | SIC Code (4-digit) | a. 3542 | b. | c. | d. | e. | f. | |
| 4.6 | Latitude and Longitude | Latitude | | | Longitude | | | |
| | | Degrees | Minutes | Seconds | Degrees | Minutes | Seconds | |
| | | 075 | 09 | 50 | 027 | 53 | 16 | |
| 4.7 | Dun & Bradstreet Number(s) (9 digits) | a. 05-773-1663 | | | | | | |
| | | b. | | | | | | |
| 4.8 | EPA Identification Number(s) (RCRA I.D. No.) (12 characters) | a. NYD131318651 | | | | | | |
| | | b. | | | | | | |
| 4.9 | Facility NPDES Permit Number(s) (9 characters) | a. N/A | | | | | | |
| | | b. | | | | | | |
| 4.10 | Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) | a. N/A | | | | | | |
| | | b. | | | | | | |

## SECTION 5. PARENT COMPANY INFORMATION

| | | |
|---|---|---|
| 5.1 | Name of Parent Company | |
| | ☐ NA | PERKIN-ELMER CORPORATION |
| 5.2 | Parent Company's Dun & Bradstreet Number | |
| | ☐ NA | (9 digits) 00-118-4480 |

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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you complete Section 2 below.)

| | |
|---|---|
| 1.1 | CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) |
| | 7429-90-5 |
| 1.2 | Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) |
| | ALUMINUM (FUME OR DUST) |
| 1.3 | Generic Chemical Name (Important: Complete **only** if Part I, Section 2.1 is checked "yes." Generic Name must be structurally descriptive.) |
| | N/A |

## SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you complete Section 1 above.)

| | |
|---|---|
| 2.1 | Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers,letters, spaces, and punctuation.) |
| | N/A |

## SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

| | | | |
|---|---|---|---|
| 3.1 | Manufacture the toxic chemical: | a. ☐ Produce<br>b. ☐ Import | If produce or import:<br>c. ☐ For on-site use/processing<br>d. ☐ For sale/distribution<br>e. ☐ As a byproduct<br>f. ☐ As an impurity |
| 3.2 | Process the toxic chemical: | a. ☐ As a reactant<br>b. ☐ As a formulation component | c. ☐ As an article component<br>d. ☐ Repackaging |
| 3.3 | Otherwise use the toxic chemical: | a. ☐ As a chemical processing aid<br>b. ☐ As a manufacturing aid | c. ☒ Ancillary or other use |

## SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

| | | |
|---|---|---|
| 4.1 | 04 | (Enter two-digit code from instruction package.) |

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11590PRKNL1101P

Toxic Chemical, Category, or Generic Name: ALUMINUM POWDER

## SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| | | | A. Total Release (pounds/ year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|---|
| 5.1 | Fugitive or non-point air emissions | [X] NA | | | |
| 5.2 | Stack or point air emissions | [X] NA | | | |
| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | | | | |
| 5.3.1 | Stream or Water Body Name: N/A | | | | |
| 5.3.2 | Stream or Water Body Name: N/A | | | | |
| 5.3.3 | Stream or Water Body Name: N/A | | | | |
| 5.4 | Underground injections on-site | [X] NA | | | |
| 5.5 | Releases to land on-site | | | | |
| 5.5.1 | Landfill | [X] NA | | | |
| 5.5.2 | Land treatment/ application farming | [X] NA | | | |
| 5.5.3 | Surface impoundment | [X] NA | | | |
| 5.5.4 | Other disposal | [X] NA | | | |

[ ] Check here only if additional Section 5.3 information is provided on page 5 of this form.



Range Codes: A = 1 - 10 pounds; B = C = 500 - 999 pounds.

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

### SECTION 5.3 ADDITIONAL INFORMATION ON RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

| 5.3 | Discharges to receiving streams or water bodies (enter one name per box) | A. Total Release (pounds/year) (enter range code from instructions or estimate) | B. Basis of Estimate (enter code) | C. % From Stormwater |
|---|---|---|---|---|
| 5.3.__ | Stream or Water Body Name | | | |
| | N/A | | | |
| 5.3.__ | Stream or Water Body Name | | | |
| | N/A | | | |
| 5.3.__ | Stream or Water Body Name | | | |
| | N/A | | | |

### SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

#### 6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTW)

**6.1.A Total Quantity Transferred to POTWs and Basis of Estimate**

| 6.1.A.1 Total Transfers (pounds/year) (enter range code or estimate) | 6.1.A.2 Basis of Estimate (enter code) |
|---|---|
| N/A | |

**6.1.B POTW Name and Location Information**

| 6.1.B.__ POTW Name | | 6.1.B.__ POTW Name | |
|---|---|---|---|
| N/A | | | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip Code | State | Zip Code |

If additional pages of Part II, Sections 5.3 and/or 6.1 are attached, indicate the total number of pages in this box ☐ and indicate which Part II, Sections 5.3/6.1 page this is, here. ☐
(example: 1, 2, 3, etc.)



Range Codes: A = 1 - 10 pounds; B = 11 C = 500 - 999 pounds.

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# EPA FORM R

# PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER: 11590PRKNL1101P

Toxic Chemical, Category, or Generic Name: ALUMINUM POWDER

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: LONI-JO SCRAP METAL

Street Address: 70 Kinkel Street

City: Westbury

County: Nassau

State: NY

Zip Code: 11590

Is location under control of reporting facility or parent company? [ ] Yes [X] No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. B | 1. M | 1. M 24 |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

## SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. Off-site EPA Identification Number (RCRA ID No.): N/A

Off-Site Location Name: N/A

Street Address:

City:

County:

State:

Zip Code:

Is location under control of reporting facility or parent company? [ ] Yes [ ] No

| A. Total Transfers (pounds/year) (enter range code or estimate) | B. Basis of Estimate (enter code) | C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code) |
|---|---|---|
| 1. | 1. | 1. M |
| 2. | 2. | 2. M |
| 3. | 3. | 3. M |
| 4. | 4. | 4. M |

**If additional pages of Part II, Section 6.2 are attached, indicate the total number of pages in this box [ ] and indicate which Part II, Section 6.2 page this is, here. [ ] (example: 1, 2, 3, etc.)**



Range Codes: A = 1 - 10 pounds; B = 1
C = 500 - 999 pounds.

EPA

United States Environmental Protection Agency

# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

[X] Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

| a. General Waste Stream (enter code) | b. Waste Treatment Method(s) Sequence [enter 3-character code(s)] | c. Range of Influent Concentration | d. Waste Treatment Efficiency Estimate | e. Based on Operating Data? |
|---|---|---|---|---|
| 7A.1a | 7A.1b: 1 2 3 4 5 6 7 8 | 7A.1c | 7A.1d | 7A.1e |
| | | | % | Yes [ ] No [ ] |
| 7A.2a | 7A.2b: 1 2 3 4 5 6 7 8 | 7A.2c | 7A.2d | 7A.2e |
| | | | % | Yes [ ] No [ ] |
| 7A.3a | 7A.3b: 1 2 3 4 5 6 7 8 | 7A.3c | 7A.3d | 7A.3e |
| | | | % | Yes [ ] No [ ] |
| 7A.4a | 7A.4b: 1 2 3 4 5 6 7 8 | 7A.4c | 7A.4d | 7A.4e |
| | | | % | Yes [ ] No [ ] |
| 7A.5a | 7A.5b: 1 2 3 4 5 6 7 8 | 7A.5c | 7A.5d | 7A.5e |
| | | | % | Yes [ ] No [ ] |

If additional copies of page 7 are attached, indicate the total number of pages in this box [ ] and indicate which page 7 this is, here. [ ] (example: 1, 2, 3, etc.)

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Toxic Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.**

Energy Recovery Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ]

## SECTION 7C. ON-SITE RECYCLING PROCESSES

[X] **Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.**

Recycling Methods [enter 3-character code(s)]

1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ]

6 [ ] 7 [ ] 8 [ ] 9 [ ] 10 [ ]

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# EPA FORM R

## PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

| TRI FACILITY ID NUMBER |
|---|
| 11590PRKNL1101P |
| Chemical, Category, or Generic Name |
| ALUMINUM POWDER |

## SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

| | *All quantity estimates can be reported using up to two significant figures.* | Column A 1991 (pounds/year) | Column B 1992 (pounds/year) | Column C 1993 (pounds/year) | Column D 1994 (pounds/year) |
|---|---|---|---|---|---|
| 8.1 | Quantity released* | 0 | 0 | 0 | 0 |
| 8.2 | Quantity used for energy recovery on-site | 0 | 0 | 0 | 0 |
| 8.3 | Quantity used for energy recovery off-site | 0 | 0 | 0 | 0 |
| 8.4 | Quantity recycled on-site | 0 | 0 | 0 | 0 |
| 8.5 | Quantity recycled off-site | 30 | 170 | 170 | 170 |
| 8.6 | Quantity treated on-site | 0 | 0 | 0 | 0 |
| 8.7 | Quantity treated off-site | 0 | 0 | 0 | 0 |
| 8.8 | Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year) | N/A | | | |
| 8.9 | Production ratio or activity index | .95 | | | |

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

| | Source Reduction Activities [enter code(s)] | Methods to Identify Activity (enter codes) | | |
|---|---|---|---|---|
| 8.10.1 | W19 | a. T04 | b. | c. |
| 8.10.2 | W29 | a. T04 | b. | c. |
| 8.10.3 | | a. | b. | c. |
| 8.10.4 | | a. | b. | c. |

| | | YES | NO |
|---|---|---|---|
| 8.11 | Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box) | ☐ | ☒ X |

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

Form Approved OMB No.: 2070-0093

Approval Expires: 01/94

*(Important: Type or print; read instructions before completing form.)*



**EPA** U.S. Environmental Protection Agency

# TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

**EPA FORM R**

**PART I. FACILITY IDENTIFICATION INFORMATION**

(This space for your optional use.)

Public reporting burden for this collection of information is estimated to vary from 30 to 34 hours per response, with an average of 32 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch (PM-223), US EPA, 401 M St., SW, Washington, D.C. 20460 Attn: TRI Burden and to the Office of Information and Regulatory Affairs, Office of Management and Budget Paperwork Reduction Project (2070-0093), Washington, D.C. 20603.

**1.** 1.1 Are you claiming the chemical identity on page 3 trade secret? [ ] Yes (Answer question 1.2; Attach substantiation forms.) [ ] No (Do not answer 1.2; Go to question 1.3.)

1.2 If "Yes" in 1.1, is this copy: [ ] Sanitized [ ] Unsanitized

1.3 Reporting Year 19 ____

**2. CERTIFICATION** (Read and sign after completing all sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official

Signature | Date signed

**3. FACILITY IDENTIFICATION**

3.1
- Facility or Establishment Name
- Street Address
- City | County
- State | Zip Code
- TRI Facility Identification Number

**WHERE TO SEND COMPLETED FORMS:**

1. EPCRA REPORTING CENTER
   P.O. BOX 23779
   WASHINGTON, DC 20026-3779
   ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix G)

3.2 This report contains information for (Check only one): a. [ ] An entire facility b. [ ] Part of a facility.

3.3 Technical Contact | Telephone Number (include area code)

3.4 Public Contact | Telephone Number (include area code)

3.5 SIC Code (4 digit) a. | b. | c. | d. | e. | f.

3.6

| Latitude | | | Longitude | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| | | | | | |

3.7 Dun & Bradstreet Number(s) a. | b.

3.8 EPA Identification Number(s) (RCRA I.D. No.) a. | b.

3.9 NPDES Permit Number(s) a. | b.

3.10 Receiving Streams or Water Bodies (enter one name per box)
a. | b.
c. | d.
e. | f.

3.11 Underground Injection Well Code (UIC) Identification Number(s) a. | b.

**4. PARENT COMPANY INFORMATION**

4.1 Name of Parent Company | 4.2 Parent Company's Dun & Bradstreet Number

*(Important: Type or print; read instructions before completing form.)*



EPA

# EPA FORM R
## PART II. OFF-SITE LOCATIONS TO WHICH TOXIC CHEMICALS ARE TRANSFERRED IN WASTES

(This space for your optional use.)

## 1. PUBLICLY OWNED TREATMENT WORKS (POTWs)

| 1.1 POTW name | | 1.2 POTW name | |
|---|---|---|---|
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |

## 2. OTHER OFF-SITE LOCATIONS (DO NOT REPORT LOCATIONS TO WHICH WASTES ARE SENT ONLY FOR RECYCLING OR REUSE).

| 2.1 Off-site location name | | 2.2 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.3 Off-site location name | | 2.4 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

| 2.5 Off-site location name | | 2.6 Off-site location name | |
|---|---|---|---|
| EPA Identification Number (RCRA ID. No.) | | EPA Identification Number (RCRA ID. No.) | |
| Street Address | | Street Address | |
| City | County | City | County |
| State | Zip | State | Zip |
| Is location under control of reporting facility or parent company? [ ] Yes [ ] No | | Is location under control of reporting facility or parent company? [ ] Yes [ ] No | |

[ ] Check if additional pages of Part II are attached. How many? _____

EPA

# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION

(This space for your optional use.)

**1. CHEMICAL IDENTITY** (Do not complete this section if you complete Section 2.)

| | |
|---|---|
| 1.1 | [Reserved] |
| 1.2 | CAS Number (Enter only one number exactly as it appears on the 313 list. Enter NA if reporting a chemical category.) |
| 1.3 | Chemical or Chemical Category Name (Enter only one name exactly as it appears on the 313 list.) |
| 1.4 | Generic Chemical Name (Complete only if Part I, Section 1.1 is checked "Yes." Generic name must be structurally descriptive.) |

**2. MIXTURE COMPONENT IDENTITY** (Do not complete this section if you complete Section 1.)

Generic Chemical Name Provided by Supplier (Limit the name to a maximum of 70 characters (e.g., numbers, letters, spaces, punctuation).)

**3. ACTIVITIES AND USES OF THE CHEMICAL AT THE FACILITY** (Check all that apply.)

| | | | | |
|---|---|---|---|---|
| 3.1 | Manufacture the chemical: | a. [ ] Produce | If produce or import: c. [ ] For on-site use/processing | d. [ ] For sale/ distribution |
| | | b. [ ] Import | e. [ ] As a byproduct | f. [ ] As an impurity |
| 3.2 | Process the chemical: | a. [ ] As a reactant | b. [ ] As a formulation component | c. [ ] As an article component |
| | | d. [ ] Repackaging only | | |
| 3.3 | Otherwise use the chemical: | a. [ ] As a chemical processing aid | b. [ ] As a manufacturing aid | c. [ ] Ancillary or other use |

**4. MAXIMUM AMOUNT OF THE CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR**

[ ][ ] (enter code)

**5. RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE**

You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2)

| | | A. Total Release (pounds/year) | | B. Basis of Estimate | C. % From Stormwater |
|---|---|---|---|---|---|
| | | A.1 Reporting Ranges 1-10 / 11-499 / 500-999 | A.2 Enter Estimate | (enter code) | |
| 5.1 Fugitive or non-point air emissions | 5.1a | [ ] [ ] [ ] | | 5.1b [ ] | |
| 5.2 Stack or point air emissions | 5.2a | [ ] [ ] [ ] | | 5.2b [ ] | |
| 5.3 Discharges to receiving streams or water bodies (Enter letter code from Part I Section 3.10 for stream(s) in the box provided.) — 5.3.1 [ ] | 5.3.1a | [ ] [ ] [ ] | | 5.3.1b [ ] | 5.3.1c % |
| 5.3.2 [ ] | 5.3.2a | [ ] [ ] [ ] | | 5.3.2b [ ] | 5.3.2c % |
| 5.3.3 [ ] | 5.3.3a | [ ] [ ] [ ] | | 5.3.3b [ ] | 5.3.3c % |
| 5.4 Underground injection | 5.4a | [ ] [ ] [ ] | | 5.4b [ ] | |
| 5.5 Releases to land | | | | | |
| 5.5.1 On-site landfill | 5.5.1a | [ ] [ ] [ ] | | 5.5.1b [ ] | |
| 5.5.2 Land treatment/application farming | 5.5.2a | [ ] [ ] [ ] | | 5.5.2b [ ] | |
| 5.5.3 Surface impoundment | 5.5.3a | [ ] [ ] [ ] | | 5.5.3b [ ] | |
| 5.5.4 Other disposal | 5.5.4a | [ ] [ ] [ ] | | 5.5.4b [ ] | |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

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# EPA FORM R

## PART III. CHEMICAL-SPECIFIC INFORMATION (continued)

(This space for your optional use.)

### 6. TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/yr) | | B. Basis of Estimate | C. Type of Treatment/ Disposal |
|---|---|---|---|---|
| | A.1 Reporting Ranges 1-10 / 11-499 / 500-999 | A.2 Enter Estimate | (enter code) | (enter code) |
| 6.1.1 Discharge to POTW (enter location number from Part II, Section 1.) 1 . | [ ] [ ] [ ] | | 6.1.1b | |
| 6.2.1 Other off-site location (enter location number from Part II, Section 2.) 2 . | [ ] [ ] [ ] | | 6.2.1b | 6.2.1c M |
| 6.2.2 Other off-site location (enter location number from Part II, Section 2.) 2 . | [ ] [ ] [ ] | | 6.2.2b | 6.2.2c M |
| 6.2.3 Other off-site location (enter location number from Part II, Section 2.) 2 . | [ ] [ ] [ ] | | 6.2.3b | 6.2.3c M |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 7. WASTE TREATMENT METHODS AND EFFICIENCY

☐ Not Applicabl;e (NA) - Check if no on-site treatment is applied to any waste stream containing the chemical or chemical catagory

| A. General Wastestream (enter code) | B. Treatment Method (enter code) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes / No |
|---|---|---|---|---|---|
| 7.1a ☐ | 7.1b ☐☐☐ | 7.1c ☐ | 7.1d [ ] | 7.1e % | 7.1f [ ] [ ] |
| 7.2a ☐ | 7.2b ☐☐☐ | 7.2c ☐ | 7.2d [ ] | 7.2e % | 7.2f [ ] [ ] |
| 7.3a ☐ | 7.3b ☐☐☐ | 7.3c ☐ | 7.3d [ ] | 7.3e % | 7.3f [ ] [ ] |
| 7.4a ☐ | 7.4b ☐☐☐ | 7.4c ☐ | 7.4d [ ] | 7.4e % | 7.4f [ ] [ ] |
| 7.5a ☐ | 7.5b ☐☐☐ | 7.5c ☐ | 7.5d [ ] | 7.5e % | 7.5f [ ] [ ] |
| 7.6a ☐ | 7.6b ☐☐☐ | 7.6c ☐ | 7.6d [ ] | 7.6e % | 7.6f [ ] [ ] |
| 7.7a ☐ | 7.7b ☐☐☐ | 7.7c ☐ | 7.7d [ ] | 7.7e % | 7.7f [ ] [ ] |
| 7.8a ☐ | 7.8b ☐☐☐ | 7.8c ☐ | 7.8d [ ] | 7.8e % | 7.8f [ ] [ ] |
| 7.9a ☐ | 7.9b ☐☐☐ | 7.9c ☐ | 7.9d [ ] | 7.9e % | 7.9f [ ] [ ] |
| 7.10a ☐ | 7.10b ☐☐☐ | 7.10c ☐ | 7.10d [ ] | 7.10e % | 7.10f [ ] [ ] |

[ ] (Check if additional information is provided on Part IV-Supplemental Information.)

### 8. POLLUTION PREVENTION: OPTIONAL INFORMATION ON WASTE MINIMIZATION

(Indicate actions taken to reduce the amount of the chemical being released from the facility. See the instructions for coded items and an explanation of what information to include.)

| A. Type of Modification (enter code) | B. Quantity of the Chemical in Wastes Prior to Treatment or Disposal | | | C. Index | D. Reason for Action (enter code) |
|---|---|---|---|---|---|
| | Current reporting year (pounds/year) | Prior year (pounds/year) | Or percent change (Check (+) or (-)) | | |
| M ☐ | _____ | _____ | ☐ + ☐ - _____ % | ☐☐.☐ | R ☐ |

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# EPA FORM R

## PART IV. SUPPLEMENTAL INFORMATION

Use this section if you need additional space for answers to questions in Part III. Number the lines used sequentially from lines in prior sections (e.g., 5.3.4, 6.1.2, 7.11)

(This space for your optional use.)

### ADDITIONAL INFORMATION ON RELEASES OF THE CHEMICAL TO THE ENVIRONMENT ON-SITE (Part III, Section 5.3)

| You may report releases of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | | A. Total Release (pounds/yr) | | B. Basis of Estimate (enter code in box provided) | C. % From Stormwater |
|---|---|---|---|---|---|
| | | A.1 Reporting Ranges 1–10 11–499 500–999 | A.2 Enter Estimate | | |
| 5.3 Discharges to receiving streams or water bodies | 5.3.___ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b | 5.3.___c % |
| (Enter letter code from Part I Section 3.10 for stream(s) in the box provided.) | 5.3.___ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b | 5.3.___c % |
| | 5.3.___ | 5.3.___a [ ] [ ] [ ] | | 5.3.___b | 5.3.___c % |

### ADDITIONAL INFORMATION ON TRANSFERS OF THE CHEMICAL IN WASTE TO OFF-SITE LOCATIONS (Part III, Section 6)

| You may report transfers of less than 1,000 pounds by checking ranges under A.1. (Do not use both A.1 and A.2) | A. Total Transfers (pounds/yr) | | B. Basis of Estimate | C. Type of Treatment/ Disposal |
|---|---|---|---|---|
| | A.1 Reporting Ranges 1–10 11–499 500–999 | A.2 Enter Estimate | (enter code in box provided) | (enter code in box provided) |
| 6.1.___ Discharge to POTW (enter location number from Part II, Section 1.) 1 | [ ] [ ] [ ] | | 6.1.___b | |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | | 6.2.___b | 6.2.___c M |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | | 6.2.___b | 6.2.___c M |
| 6.2.___ Other off-site location (enter location number from Part II, Section 2.) 2 | [ ] [ ] [ ] | | 6.2.___b | 6.2.___c M |

### ADDITIONAL INFORMATION ON WASTE TREATMENT METHODS AND EFFICIENCY (Part III, Section 7)

| A. General Wastestream (enter code in box provided) | B. Treatment Method (enter code in box provided) | C. Range of Influent Concentration (enter code) | D. Sequential Treatment? (check if applicable) | E. Treatment Efficiency Estimate | F. Based on Operating Data? Yes No |
|---|---|---|---|---|---|
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |
| 7.___a | 7.___b | 7.___c | 7.___d [ ] | 7.___e % | 7.___f [ ] [ ] |

P E R K I N - E L M E R

**Interoffice Memo**

DATE: December 22, 1993

TO: J. Macri/C. Conroy LOC: 715

FROM: J. Rabideau LOC: 221 EXT: 2701

SUBJECT: **FORM R's FOR 1992**

Even though Metco has been excluded from Perkin-Elmer's participation in EPA's 33/50 Program, we still need a copy of your FORM R Toxic Release Inventory Reports for 1992. If it is more convenient, a copy of EPA's playback "Release Value Reports", which you should have received by now, will do just as well.

HAPPY HOLIDAYS!

Joe

METCO
*PERKIN ELMER*

# METCO CLEANING SOLVENT

NON-FLAMMABLE SOLVENT EXCELLENT FOR CLEANING METALS CONTAMINATED WITH OILS AND GREASES

Especially prepared for degreasing and cleaning metal surfaces before metallizing.
Use cold. Do not use for vapor phase degreasing.
Wipe or brush, using rags or brush.

**HAZARD NOTICE:** This material is for the thermal spraying process. Consult the METCO Instruction Manual, the Material Safety Data Sheet, and applicable Federal and local jurisdiction safety and health regulations before utilizing this product. This product should not be ingested; inhalation and skin contact should be avoided. Local ventilation, skin and respiratory protection should be used during handling. Good housekeeping and personal hygiene should be practiced. Some individuals may show unusual sensitivity to exposure. Failure to observe proper practices may result in health hazards. Use cold. Do not use for vapor phase degreasing. Do not pour used solvent back in can. Do not use on rubber or plastics. Do not use in oxygen systems. Do not contaminate with water. Do not vaporize in presence of ignition sources.

**HARMFUL OR FATAL IF INHALED. HARMFUL OR FATAL IF SWALLOWED.**
**CONTAINS 1,1,1-TRICHLOROETHANE.**
**USE ONLY WITH ADEQUATE VENTILATION. FOR INDUSTRIAL USE ONLY.**

**Specific Effects Of Overexposure:**
**1,1,1-Trichloroethane:** Hazard by inhalation, ingestion, skin and eye contact. Inhalation may cause an anesthetic effect and has been shown to cause pathological changes in the liver and lungs of some animal species. Inhalation or ingestion may produce symptoms of dizziness, drowsiness, distorted perceptions, motor activity changes, irritability, aggression, diarrhea, nausea, vomiting or other gastrointestinal tract changes. Narcotic in high concentrations. Cardiac sensitization can occur in high exposures. Long term overexposure may cause liver/kidney damage. Skin contact may cause irritation, defatting of the skin causing redness and scaliness. Eye contact may produce severe irritation.
**Target Organs:** Cardiovascular system, Central nervous system, gastrointestinal tract, liver, kidney, skin, eyes.

**In Case of Fire:**
Extinguishing Media: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or foam) ~~designed to extinguish NFPA Class 1B flammable liquid fires~~.
Unusual Fire and Explosion Hazards: 1,1,1-Trichloroethane is moderately flammable at higher temperatures; no flash point when tested in conventional closed tester at ordinary temperatures.
Special Fire Fighting Procedures: Fire fighters should wear a NIOSH/MSHA approved pressure-demand, self-contained breathing apparatus for possible exposure to hydrogen chloride and possible traces of phosgene. When heated to decomposition can emit highly toxic phosgene, hydrogen chloride and chlorine. May also be decomposed slowly by contact with water to hydrogen chloride. Under proper conditions can undergo hazardous reactions with aluminum oxide and heavy metals; dinitrogen tetraoxide; inhibitors; metals; sodium hydroxide; nitrogen tetroxide; oxygen.

**In Case of Spill or Leak:**
Immediately evacuate the area and provide maximum ventilation. Unprotected personnel should move upwind of spill. Only personnel equipped with proper respirator and skin/eye protection should be permitted in area. Dike areas to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover or absorb spilled material with sawdust or vermiculite and sweep into closed containers for disposal. After all visible traces have been removed, thoroughly wet vacuum the area. DO NOT flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc., as necessary and place in closed containers for disposal.

~~IN CASE OF SPILL~~ FOR EMERGENCY ASSISTANCE CALL ✓
CALL CHEMTREC - DAY OR NIGHT
1- 800-424-9300

**Special Protection Information:**
Adequate local/general ventilation should be provided when using this product. Appropriate respiratory, skin, eye and hand protection should be utilized when using this product. Avoid prolonged or repeated contact with skin. Do not take internally. CALL PHYSICIAN IMMEDIATELY, if swallowed. High concentrations of vapors are anesthetic and dangerous to life. NIOSH/MSHA approved pressure-demand, self-contained breathing apparatus must be used where thorough ventilation is not possible. Eye irritation and dizziness are signs of inadequate ventilation and dangerous concentration.

**Special Precautions:**
Precautions to be Taken in Handling and Storing: Store away from incompatibles. Keep containers closed when not in use. Do not store in open, unlabeled or mislabeled containers. Do not transfer contents to bottles or other unlabeled containers. Store in a cool and dry area. Do not use in poorly ventilated or confined areas. Liquid oxygen or other strong oxidants may form explosive mixtures with METCO Cleaning Solvent. This material or its vapors when in contact with flames, hot glowing surfaces or electric arcs can be decomposed to form hydrogen chloride gas and traces of phosgene.
Other Precautions: Avoid oral ingestion and excessive skin contact. Do not drink, eat or smoke in work areas. Clean hands thoroughly after using especially before eating. Avoid prolonged or repeated breathing of vapors. High vapor concentrations can cause dizziness or unconsciousness. Long term overexposure may cause liver/kidney damage.
DO NOT FLAME CUT, BRAZE OR WELD EMPTY CONTAINERS.
KEEP CONTAINERS CLOSED WHEN NOT IN USE.
Waste Disposal Method: Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. Contaminated sawdust, vermiculite or porous surface must be disposed of in a permitted hazardous waste management facility. Recovered liquids may be reprocessed or incinerated or must be treated in a permitted waste management facility. Dispose of the chemical materials and/or their containers in accordance with federal, state or local laws/regulations regarding disposal.

USING THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD CLASSIFICATIONS, THIS PRODUCT'S HAZARD CLASSIFICATION IS:

| | |
|---|---|
| HEALTH | 3 (3?) ✓ okay or per HST |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | See the MSDS for proper personal protective equipment. |

Flash Point: None.
UN2831, ORM-A
ORM-A ?. ✓

ODC ?, HARMFUL TO PUBLIC HEALTH & ENVIRONMENT BY DESTROYING OZONE IN UPPER ATMOSPHERE ✓

PROTECTION EYE RESPIRATOR BODY ?. ✓

**TECHNICAL REPORT**

**Sulzer Innotec**
Sulzer Markets and Technology Ltd

| | | | |
|---|---|---|---|
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***Titel/Thema:*** **Manual Environmental Data Collection Sulzer Corporation 2001**
(Dieses Manual ist auch auf Deutsch erhältlich)

*Keywords:* Environmental Management, ISO 14'031, Environmental Reporting

*Summary:*

This manual supports Environmental Officers of Sulzer Companies for the Sulzer Environmental Data Collection 2001. The environmental data collection takes place by means of a written questionnaire. The manual gives a description of the relevance and goals of the Environmental Data Collection as well as additional information to selected chapters of the questionnaire.

Within the Sulzer Corporation, environmental data has been gathered by a growing number of companies. It is planned to extend the data collection to cover 45 sites by the year 2001 (year under report).

On the Corporate level, environmental data is used to communicate environmental topics to various focus groups and for internal comparisons. In particular they are used to prepare the environmental report and for communication with the financial market. For individual sites, environmental data might help to identify the potential for improvement and therefore to plan environmental actions and to improve the environmental performance.

SULZER

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# 1. Introduction

This manual supports Environmental Officers of Sulzer Companies for the Sulzer Environmental Data Collection for the reporting year 2000/01. It gives a description of the relevance and goals of the Environmental Data Collection as well as additional information for selected chapters of the questionnaire.
Within the Sulzer Corporation, environmental data has been gathered by a growing number of companies. It is planned to cover all sites with environmental relevant activities.

# 2. Goals of the environmental data collection

- Identify the potential for improvement
  - Reduction of environmental impact
    - Materials, energy, water
    - Waste, emissions
  - Lowering environmental costs
  - Improve market value of our products
- Corporate wide baseline for comparisons (benchmark)
  - push best practice
  - build up internal and external transparency
- Baseline for annual Corporate Environmental Report for the communication of our environmental performance to
  - Shareholders, Investors and Media
  - Employees
  - Customers
  - Public (especially via Internet)

The environmental data collection is repeated annually (in January for the previous year).

# 3. Organization

## 3.1 General

The initiator of the environmental data collection is Ruth E. Blumer (REB), Head Corporate Environment, Health, Safety and Quality.

Dr. Ruth E. Blumer
Head Corporate Environment, Health, Safety and Quality
Sulzer Management Ltd.
P.O. Box
CH-8401 Winterthur
Switzerland

Phone +41-(0)52-262 20 96
Fax +41-(0)52-262 00 22
email ruth.blumer@sulzer.com

Within the companies involved, usually the environmental officer is responsible for the data collection. An address list is given in annex 1.

## 3.2 Schedule

The schedule is set up in order to publish one page with environmental information in the annual Report 2001 (March 2002) as well as a separate Sulzer Environmental Report 2001/02 (spring 2002).
The timetable of the environmental data collection 2001 is given in table 1. Deadlines that need action by the participating Sulzer sites, are written in **bold**. Please try to keep this schedule. If this is not possible, please inform Ruth E. Blumer as soon as possible.

| Schedule | What | Who |
|---|---|---|
| January 2001 | Distribution of questionnaire | REB |
| End of Jan. 2002 | Deadline for the environmental page in the Annual Report 2002 | REB |
| **February 15, 2002** | **All data (quantities and costs) returned** | **Sites** |
| March 2002 | Data collection, evaluation, plausibility checks and follow up | REB |
| **March 15 2002** | **Answering open questions** | **Sites** |
| End of March 2002 | End of data collection and evaluation | REB |
| Middle of April 2002 | Deadline Sulzer Corporate Environmental Report 2001/02 | REB |
| Middle of April 2002 | Feedback to participating sites and Environmental Officers of Business Units | REB |
| **End of April 2002** | **Answers to feedback** | **Sites** |
| June 2002 | Publication of Sulzer Corporate Environmental Report 2001/02 | REB |

**Table 1: Schedule for environmental data collection, evaluation and reporting.**

REB Head Corporate Quality and Environment (Ruth E. Blumer)
Sites Participating Sulzer sites

# 4. Data collection

## 4.1 Questionnaire

The environmental data collection takes place by means of a written questionnaire, which is available in English and German.
You will get an electronic version of the questionnaire by email (Word97, Windows95). If no email address is available you will receive a paper copy. Please send back the filled in questionnaire by email and also as a signed hardcopy.

Please fill in all fields of the questionnaire shaded in **grey**.

- With the respective **value**, if the respective resource is used at your site.
- With "**not known**", if a resource is used, but you do not have any data.
- With "**N/A**" (not applicable), if a resource is not used.

Each grey field should finally be filled in with a value, "not known" or "N/A". This makes the evaluation of the questionnaire much easier and more accurate.

## 4.2 Participating companies

Environmental data has been gathered within the Sulzer Corporation since 1993. In 2000, 40 sites participated in the environmental data collection. For 2001, it is planned to expand the data collection to all sites of New SULZER with environmental relevant activities.

Due to several changes and adaptations within the divisions and at production sites it was definet that the environmental officers of the divisions (see Annex 1) are responsible for the coordination of the data collection. This measure shall guarantee that all relevant sites and companies are included. EHS&Q makes available all necessary manuals and questionnaires.

## 4.3 Data quality

The data given in the questionnaire will be used for the Corporate Environmental Report, to answer questions of selected organizations (e.g. banks, rating agencies, authorities) and for internal analysis. Therefore, your information has to be as complete and correct as possible. Please document the sources and calculations that were used to fill in this questionnaire. The person who signs the questionnaire is responsible for the correctness of the data given.

# 5. Additional explanations for the questionnaire

This chapter focuses on some important points of the environmental data collection. Additional technical explanations can be found in the questionnaire (particularly in footnotes).

## 5.1 Number of employees

The number of employees is a very important measure, as all data will be expressed on the basis of the number of employees („per-capita-use").
The number of employees is recorded according to line 300 (end of the year) and line 304 (average) of the general summary 5.1 of finance and accounting.
This number of employees therefore includes:

- All full time employees
- All part time employees with a workload ≥ 40% (adjusted to full workload)
- All apprentices/trainees
- But **no** employees of external companies (e.g. temporary staff, contractors, etc.)

In deviation from line 300 and 304 of the general summary 5.1 of finance and accounting, for the purpose of the environmental data collection, employees of branch offices (that is employees without a working place at your site), are **not** covered. However, sales representatives and others who have a working place at your site are to be included.

**External staff**
Besides the number of employees according to line 300, also the number of external staff is to be included. This concerns co-workers, that do not have a contract with your company, but nevertheless work permanently (full-time or part-time > 40%, adjusted to full workload) at your site, e.g.

- temporary staff,
- contractors (security guards, cleaning personal and others) or
- guests from other Sulzer companies.

If you cannot subdivide the information for chapters A – E into Sulzer vs. subtenants (e.g. only one electricity meter) and you also cannot make a viable estimation, please report the data for the whole site and include also the employees of your subtenants.

**Please make sure that in all cases the number of employees reported and all information given in sections A - E of the questionnaire refer to the same system boundaries.**

The evaluation of the environmental indicators will be based on the average number of employees at the beginning of the year and the end of the year. The number of employees will include the personnel employed by Sulzer and the relevant external staff at the site.

## 5.2 Chapter A: Use of Energy

Energy consumption is the most important environmental aspect of Sulzer. Please make sure that your information on energy consumption and energy costs is complete and accurate.
Please indicate the complete energy input, that is all types of energy that come into your site from outside as well as, where applicable, internally generated energy. Wherever energy (e.g. electricity or district heating) is supplied by Sulzer to external users, only the effective amount of energy actually used by Sulzer should be reported.
Your data should include all energy consumption for heating, air-conditioning, ventilation, cooling, internal transportation, processes, compressed air generation, office equipment, etc at your site. Please mark missing data clearly.
Costs for electricity include costs for the amount of electricity used (kilowatt hours) as well as costs for the capacity installed (kilowatt).

## 5.3 Chapter B: Water usage

Please report the total water **input** to your site. The questionnaire distinguishes 3 possible sources of water (public supply, own source, superficial water [e.g. rivers or lakes]). Superficial water only used for cooling purposes and directly discharged to the river / lake again should not be reported. Drinking water purchased in bottles should also not be reported. On the other hand, water used for irrigation should be included.
The costs for water are to include both the costs for water supply and for sewage.

## 5.4 Chapter C: Waste and recycling

This section distinguishes between 3 categories of materials:

- Municipal Solid Waste MSW
- Hazardous waste
- Recycled materials.

Reported waste quantities should neither include construction and demolition debris nor waste generated under one-time special circumstances (e.g. closing of a part of the factory).
The category "Municipal Solid Waste" includes all wastes, which can be disposed of without any legally defined special precautions.
The category "hazardous waste" includes all classes of waste defined as "hazardous" by local legislation.
By „recycled materials", we mean those materials which will be processed to produce a product similar to the original product. The thermal utilization (incineration, pyrolysis, gasification) is thereby *not* considered to be recycling. Materials defined as „hazardous waste" by local legislation, are to be reported under "Hazardous waste", even though their treatment could be defined as „recycling" (e.g waste oil).

## 5.5 Chapter D: Specially regulated substances

This section deals with hazardous substances, which might possibly be present in stationary equipment and are specially regulated by environmental legislation in most countries: ozone depleting substances (CFC, halons, etc.), greenhouse gases, polychlorinated biphenyls (PCB) and asbestos.

## 5.6 Chapter E: Emissions to air

Based on a significance analysis taking into consideration the environmental data of the last couple of years this questionnaire only deals with the following topics:

- Depletion of the ozone layer in the stratosphere (table E.1)
- Global warming (table E.2)
- Summer smog / formation of ozone in the lower layers of the atmosphere caused by volatile organic compounds (table E.3.)

The use of other chemicals (acids and alcalis, oil, etc.) will no longer be recorded.

| **Substances** | **Typical applications** |
|---|---|
| **Ozone depleting substances (see annex 2)** | |
| - Chlorofluorocarbons (CFC) | Coolants, solvents, foaming agents |
| - Hydrochlorofluorocarbons (HCFC) | Coolants, solvents |
| - Brominated hydrocarbons (HBFC, halons) | Fire extinguishing substances |
| - Carbon tetrachloride, 1,1,1-trichloroethane, methylbromide | Solvents |
| **Greenhouse gases (see annex 3)** | |
| - Fluorinated hydrocarbons (HFC, PFC) | Refrigerants |
| - Methane, nitrous oxide, sulphurhexafluoride | Insulators |
| **Volatile organic compounds VOC (see annex 4)** | |
| - Chlorinated hydrocarbons (CHC) | Cleaning, de-greasing |
| - Non-halogenated hydrocarbons | Solvents |
| Alkalis and acids | Cleaning, etching and pickling |

**Table 3** **Most important groups of substances emitted to air.**

Hazardous materials that are handled by employees of your company at customers' sites (e.g. first filling with refrigerant), also have to be reported in tables E.1 to E.3.

### 5.6.1 Ozone depleting substances

For ozone depleting substances all substances used as well as the waste as well as emissions to air caused have to be reported. There is no lower threshold limit. A list with the most common substances of this category can be found in annex 2.

### 5.6.2 Greenhouse gases

For greenhouse gases all substances used and the waste and emissions to air caused have to be reported. There is no lower threshold limit. A list with the most common substances of this category can be found in annex 3.
Only greenhouse gases caused by special processes at your site should be reported. Greenhouse gas emissions resulting from energy consumption do **not** have to be reported since they will be calculated based on your energy data given in chapter A.

### 5.6.3 Volatile organic compounds VOC

VOC are organic compounds with boiling point ≤ 240 °C (at 1013 mbar) or vapor pressure ≥ 0.1 mbar (at 20 °C). All common solvents (alcohols, ethers, ketons) are VOC. A list with the most commonly used VOC can be found in annex 4.
For VOC, all substances with an annual turnover of **> 50 kg** per substance and the waste and emissions to air caused have to be reported.

## 5.7 Conversion of units

All physical data should be given in metric units. The footnotes in the questionnaire as well as annex 5 of this manual will give you information about conversion factors. More help can be found under on the internet under: **www.ex.ac.uk/cimt/dictunit/dictunit.htm.**
In order to improve the reliability of unit conversions please document all conversions you make in section G of the questionnaire reporting your original data (quantity and unit) as well as the converted data you report in sections A - E of the questionnaire.

# 6. Evaluation

Two sets of key figures are calculated:

- Consumption per employee: "Per-capita-consumption" (on Corporate level [aggregated data] and on site level)
- Consumption per value added (only on the Corporate level [aggregated data])

## 6.1 General evaluation

The following general evaluations are carried out:

- Aggregated data on the Corporate level (mean value of all sites) for energy, water, waste, hazardous waste, recycling and emissions to air.
- Comparisons between sites for energy, water, waste, hazardous waste and recycling
- Time series for all sites that have provided data for at least two years (also for energy, water, waste, hazardous waste and recycling)

## 6.2 Specific evaluation

The following specific evaluations are carried out:

- $CO_2$-emissions (calculated from energy consumption)
- Comparison between Sulzer Medica and Sulzer Industries
- Comparison between US sites and Swiss sites
- Share of renewable energy in total energy consumption

## 6.3 Feedback to companies involved

After the evaluation and control of data, the participating sites and the Environmental Officers of the respective Business Units will get a feedback, which will include:

- Comparisons between sites for energy, water, waste, hazardous waste and recycling
- Time series for all sites, that have provided data for at least two years (also for energy, water, waste, hazardous waste and recycling)
- Tabular presentation of input data
- Site specific comments (one page per site)
- Address list

- Covering letter with request for comments on the data collection and with the time schedule for the upcoming year.

## 6.4 Confidentiality of data

All data given in the questionnaire will be treated confidentially. Data may be handed out to external organizations only by the following persons:

| Data | Published by... |
|---|---|
| Corporate data (consolidated „Sulzer-average") | Only by R. Blumer |
| Comparisons between sites | For internal use only, not to be published |
| Data of one single site (e.g. energy consumption site xy) | Only by the specific product division |

**Table 4** **Release of environmental data and evaluations.**

# Annex 1 Environmental officers SULZER Group (group and divisions)

| | |
|---|---|
| **Group** | **Ruth E. Blumer**<br>Fax +41 (0) 52 262 00 22<br>E-Mail ruth.blumer@sulzer.com |
| **Sulzer Chemtech** | **Roland Saxer**<br>Fax +41 (0) 52 262 00 60<br>E-Mail roland.saxer@sulzer.com |
| **Sulzer Hexis** | **Wanner Bernhard**<br>Fax +41 (0) 52 262 63 33<br>E-Mail bernhard.wanner@sulzer.com |
| **Sulzer Metco** | **Joseph Reardon**<br>Fax +1 516 338 21 23<br>E-Mail joseph.reardon@sulzer.com<br><br>***for Switzerland***<br>**Marc Heid**<br>Fax +41 (0) 56 618 81 00<br>E-Mail marc.heid@sulzer.com |
| **Sulzer Pumps** | **Jaakko Kujala**<br>Fax +358 (0) 5 224 22 23<br>E-Mail jaakko.kujala@sulzer.com |
| **Sulzer Turbomachinery Services** | **Dick Marksberry**<br>Fax +1 281 842 56 52<br>E-Mail dick.marksberry@hickham.com<br><br>**Jan Hermans**<br>Fax +31 774 73 27 85<br>E-Mail jan.hermans@elbar.com |
| **Sulzer Innotec** | **Peter Dalbert**<br>Fax +41 (0) 52 262 00 15<br>E-Mail peter.dalbert@sulzer.com |
| **Sulzer Immobilien** | **Walter Muhmenthaler**<br>Fax +41 (0) 52 262 00 92<br>E-Mail walter.muhmenthaler@sulzer.com |
| **Sulzer Burckhardt** | **Ruedi Walther**<br>Fax +41 (0) 52 262 00 54<br>E-Mail ruedi.walther@sulzer.com |

# Annex 2 Ozone Depleting Substances

Annex 2 gives list of the ozone depleting substances (ODS) controlled under the Montreal Protocol and its Amendments. Source: www.unepie.org/ozat/protocols/ods.html.

### A.2.1 Chlorofluorocarbons (CFC)

| Name | Chemical Name | ODP [1] |
|---|---|---|
| CFC-11 | trichlorofluoromethane | 1.0 |
| CFC-12 | dichlorodifluoromethane | 1.0 |
| CFC-13 | chlorotrifluoromethane | 1.0 |
| CFC-111 | pentachlorofluoroethane | 1.0 |
| CFC-112 | tetrachlorodifluoroethane | 1.0 |
| CFC-113 | 1,1,1-trichlorotrifluoroethane | 1.0 |
| CFC-113 | 1,1,2-trichlorotrifluoroethane | 0.8 |
| CFC-114 | dichlorotetrafluoroethane | 1.0 |
| CFC-115 | monochloropentafluoroethane | 0.6 |
| CFC-211 | heptachlorofluoropropane | 1.0 |
| CFC-212 | hexachlorodifluoropropane | 1.0 |
| CFC-213 | pentachlorotrifluoropropane | 1.0 |
| CFC-214 | tetrachlorotetrafluoropropane | 1.0 |
| CFC-215 | trichloropentafluoropropane | 1.0 |
| CFC-216 | dichlorohexafluoropropane | 1.0 |
| CFC-217 | chloroheptafluoropropane | 1.0 |

### A.2.2 Hydrochlorofluorocarbons (HCFC)

| Formula | Name | ODP [3] |
|---|---|---|
| $CHFCl_2$ | HCFC-21 | 0.04 |
| $CHF_2Cl$ | HCFC-22 | 0.055 |
| $CH_2FCl$ | HCFC-31 | 0.02 |
| $C_2HFCl_4$ | HCFC-121 [4] | 0.01 - 0.04 |
| $C_2HF_2Cl_3$ | HCFC-122 [4] | 0.02 - 0.08 |
| $C_2HF_3Cl_2$ | HCFC-123 | 0.02 - 0.06 |
| $CHCl_2CF_3$ | HCFC-123 | 0.02 |
| $C_2HF_4Cl$ | HCFC-124 | 0.02 - 0.04 |
| $CHFClCF_3$ | HCFC-124 [4] | 0.022 |
| $C_2H_2FCl_3$ | HCFC-131 | 0.007 - 0.05 |
| $C_2H_2F_2Cl_2$ | HCFC-132 | 0.008 - 0.05 |
| $C_2H_2F_3Cl$ | HCFC-133 | 0.02 - 0.06 |
| $C_2H_3FCl_2$ | HCFC-141 | 0.005 - 0.07 |
| $CH_3CFCl_2$ | HCFC-141b [4] | 0.11 |
| $C_2H_3F_2Cl$ | HCFC-142 | 0.008 - 0.07 |
| $CH_3CF_2Cl$ | HCFC-142b | 0.065 |
| $C_2H_4FCl$ | HCFC-151 | 0.003 - 0.005 |
| $C_3HFCl_6$ | HCFC-221 | 0.015 - 0.07 |
| $C_3HF_2Cl_5$ | HCFC-222 | 0.01 - 0.09 |
| $C_3HF_3Cl_4$ | HCFC-223 | 0.01 - 0.08 |
| $C_3HF_4Cl_3$ | HCFC-224 | 0.01 - 0.09 |
| $C_3HF_5Cl_2$ | HCFC-225 | 0.02 - 0.07 |
| $CF_3CF_2CHCl_2$ | HCFC-225ca [4] | 0.025 |
| $CF_2ClCF_2CHClF$ | HCFC-225cb [4] | 0.033 |
| $C_3HF_6Cl$ | HCFC-226 | 0.02 - 0.10 |
| $C_3H_2Cl_5$ | HCFC-231 | 0.05 - 0.09 |
| $C_3H_2F_2Cl_4$ | HCFC-232 | 0.008 - 0.10 |
| $C_3H_2F_3Cl_3$ | HCFC-233 | 0.007 - 0.23 |
| $C_3H_2F_4Cl_2$ | HCFC-234 | 0.01 - 0.28 |
| $C_3H_2F_5Cl$ | HCFC-235 | 0.03 - 0.52 |
| $C_3H_3FCl_4$ | HCFC-241 | 0.004 - 0.09 |
| $C_3H_3F_2Cl_3$ | HCFC-242 | 0.005 - 0.13 |
| $C_3H_3F_3Cl_2$ | HCFC-243 | 0.007 - 0.12 |
| $C_3H_3F_4Cl$ | HCFC-244 | 0.009 - 0.14 |
| $C_3H_4FCl_3$ | HCFC-251 | 0.001 - 0.01 |
| $C_3H_4F_2Cl_2$ | HCFC-252 | 0.005 - 0.04 |
| $C_3H_4F_3Cl$ | HCFC-253 | 0.003 - 0.03 |
| $C_3H_5FCl_2$ | HCFC-261 | 0.002 - 0.02 |
| $C_3H_5F_2Cl$ | HCFC-262 | 0.002 - 0.02 |
| $C_3H_6FCl$ | HCFC-271 | 0.001 - 0.03 |

### A.2.3 Halons

| Name | Chemical Name | ODP [1] |
|---|---|---|
| Halon1211 | bromochlorodifluoromethane | 3.0 |
| Halon1301 | bromotrifluoromethane | 10.0 |
| Halon2402 | dibromotetrafluoroethane | 6.0 |

### A.2.4 Brominated hydrofluorocarbons (HBFC)

| Formula | ODP [3] |
|---|---|
| $CHFBR_2$ | 1.0 |
| $CHF_2Br$ (HBFC-22B1) | 0.74 |
| $CH_2FBr$ | 0.73 |
| $C_2HFBr_4$ | 0.3 - 0.8 |
| $C_2HF_2Br_3$ | 0.5 - 1.8 |
| $C_2HF_3Br_2$ | 0.4 - 1.6 |
| $C_2HF_4Br$ | 0.7 - 1.2 |
| $C_2H_2FBr_3$ | 0.1 - 1.1 |
| $C_2H_2F_2Br_2$ | 0.2 - 1.5 |
| $C_2H_2F_3Br$ | 0.7 - 1.6 |
| $C_2H_3FBr_2$ | 0.1 - 1.7 |
| $C_2H_3F_2Br$ | 0.2 - 1.1 |
| $C_2H_4Br$ | 0.07 - 0.1 |
| $C_3HFBr_6$ | 0.3 - 1.5 |
| $C_3HF_2Br_5$ | 0.2 - 1.9 |
| $C_3HF_3Br_4$ | 0.3 - 1.8 |
| $C_3HF_4Br_3$ | 0.5 - 2.2 |

| Formula | ODP [3] |
|---|---|
| $C_3HF_5Br_2$ | 0.9 - 2.0 |
| $C_3HF_6Br$ | 0.7 - 3.3 |
| $C_3H_2FBr_5$ | 0.1 - 1.9 |
| $C_3H_2F_3Br$ | 0.2 - 5.6 |
| $C_3H_2F_4Br_2$ | 0.3 - 7.5 |
| $C_3H_2F_5Br$ | 0.9 - 1.4 |
| $C_3H_3FBr_4$ | 0.08 - 1.9 |
| $C_3H_3F_2Br_3$ | 0.1 - 3.1 |
| $C_3H_3F_3Br_2$ | 0.1 - 2.5 |
| $C_3H_3F_4Br$ | 0.3 - 4.4 |
| $C_3H_4FBr_3$ | 0.03 - 0.3 |
| $C_3H_4F_2Br_2$ | 0.1 - 1.0 |
| $C_3H_4F_3Br$ | 0.07 - 0.8 |
| $C_3H_5FBr_2$ | 0.04 - 0.4 |
| $C_3H_5F_2Br$ | 0.07 - 0.8 |
| $C_3H_6FBr$ | 0.02 - 0.7 |

### A.2.5 Others

| Formula | Chemical Name | ODP [1] |
|---|---|---|
| $CCl_4$ | carbon tetrachloride | 1.1 |
| $C_2H_3Cl_3$ [2] | 1,1,1-trichloroethane (methyl chloroform) | 0.1 |
| $CH_3Br$ | methylbromide | 0.6 |

**Footnotes:**

1. ODP = Ozone depleting potential. The ozone depleting potentials are estimates based on existing knowledge and will be reviewed and revised periodically.
2. This formula does not refere to 1,1,2-trichloroethane.
3. Where a range of ODPs is indicated, the highest value in that range shall be used for purposes of the Protocol.
4. Identifies the most commercially viable substances.

# Annex 3 Greenhouse gases

| Gas | | Atmospheric lifetime [years] | Global Warming Potential [$GWP_{100}$](1) |
|---|---|---|---|
| **Carbon dioxide** ($CO_2$) | | 50-200 | 1 |
| **Methane** ($CH_4$) | | 12±3 | 21 |
| **Nitrous oxide** ($N_2O$) | | 120 | 310 |
| **Hydrofluorocarbons** | | | |
| HFC-23 | ($CHF_3$) | 264 | 11700 |
| HFC-32 | ($CH_2F_2$) | 5.6 | 650 |
| HFC-41 | ($CH_3F$) | 3.7 | 150 |
| HFC-43-10mee | ($C_5H_2F_{10}$) | 17.1 | 1300 |
| HFC-125 | ($C_2HF_5$) | 32.6 | 2800 |
| HFC-134 | ($C_2H_2F_4$) | 10.6 | 1000 |
| HFC-134a | ($CH_2FCF_3$) | 14.6 | 1300 |
| HFC-143 | ($C_2H_3F_3$) | 3.8 | 300 |
| HFC-143a | ($C_2H_3F_3$) | 48.3 | 3800 |
| HFC-152a | ($C_2H_4F_2$) | 1.5 | 140 |
| HFC-227ea | ($C_3HF_7$) | 36.5 | 2900 |
| HFC-236fa | ($C_3H_3F_5$) | 209 | 6300 |
| HFC-245ea | ($C_3H_3F_5$) | 6.6 | 560 |
| **Perfluorocarbons** | | | |
| Perfluoromethane | ($CF_4$) | 50000 | 6500 |
| Perfluoroethane | ($C_2F_6$) | 10000 | 9200 |
| Perfluoropropane | ($C_3F_8$) | 2600 | 7000 |
| Perfluorobutane | ($C_4F_{10}$) | 2600 | 7000 |
| Perfluoropentane | ($C_5F_{12}$) | 4100 | 7500 |
| Perfluorohexane | ($C_6F_{14}$) | 3200 | 7400 |
| Perfluorocyclobutane | (c-$C_4F_8$) | 3200 | 8700 |
| **Sulphurhexafluoride** ($SF_6$) | | 3200 | 23900 |

(1) $GWP_{100}$ = Global Warming Potential relative to Carbon dioxide for a 100 year timespan. The numbers given are as of 1995 and differ from earlier GWP's.

# Annex 4 Volatile organic compounds VOC

VOC are organic compounds with boiling point ≤ 240 °C (at 1013 mbar) or vapor pressure ≥ 0.1 mbar (at 20 °C). All common solvents (alcohols, ethers, ketons) are VOC.
VOC in mixtures (e.g. thinner), paints or resins also are to be included.

### A.4.1 VOC with boiling point < 150 °C

| Substance | CAS-Number | Boiling point [°C] |
|---|---|---|
| acetone | 67-64-1 | 56 |
| benzene | 71-43-2 | 80 |
| butane, gaseous / liquified | 106-97-8 | 0 |
| n-butyl alcohol | 71-36-3 | 118 |
| sec-butyl alcohol | 78-92-2 | 100 |
| n-butyl acetate | 123-86-4 | 125 |
| cyclohexane | 110-82-7 | 81 |
| methylene chloride | 75-09-2 | 40 |
| 1,2-diethoxy ethane (ethylene glycol diethyl ether) | 629-14-1 | 121 |
| diethyl ether | 60-29-7 | 35 |
| isopropyl ether | 108-20-3 | 68 |
| ethylene glycol dimethylether, dimethoxyethane (DME) | 110-71-4 | 85 |
| dimethyl ether | 115-10-6 | -23 |
| 1,4-dioxane (diethylene dioxide) | 123-91-1 | 74 |
| dipropyl ether | 111-43-3 | 90 |
| acetic acid | 64-19-7 | 117 |
| acetic anhydride | 108-24-7 | 139 |
| ethanol | 64-17-5 | 78 |
| 2-ethoxyethanol | 110-80-5 | 135 |
| 1-ethoxy-2-propanol (propylene glycol monoethyl ether) | 1569-02-4 | 129 |
| ethyl acetate | 141-78-6 | 77 |
| ethyl benzene | 100-41-4 | 136 |
| ethyl ester formic acid (ethyl formate) | 109-94-4 | 54 |
| formaldehyde (methanal) | 50-00-0 | -21 |
| heptane | 142-82-5 | 98 |
| hexane | 110-54-3 | 69 |
| isobutyl acetate | 110-19-0 | 116 |
| isopropyl acetate | 108-21-4 | 89 |
| methanol | 67-56-1 | 65 |
| 1-methoxy-2-propanol acetate | 108-65-6 | 145 |
| 2-methoxyethanol | 109-86-4 | 124 |
| 2-methoxyethyl acetate | 110-49-6 | 145 |
| propylene glycol monomethyl ether | 107-98-2 | 120 |
| methyl acetate | 79-20-9 | 57 |
| 2-methylbutane (iso-pentane) | 78-78-4 | 30 |
| methylcyclohexane (cyclohexylmethane) | 108-87-2 | 102 |
| methyl ethyl ketone (2-butanone, MEK) | 78-93-3 | 80 |
| methyl ester formic acid (methyl formate) | 107-31-3 | 32 |
| 2-methyl pentane | 107-83-5 | 62 |
| methyl isobutyl ketone (hexone) | 108-10-1 | 118 |
| isobutyl alcohol | 78-83-1 | 107 |
| n-pentane | 109-66-0 | 35 |
| p-amyl alcohol | 71-41-0 | 138 |
| secondary amyl alcohol | 6032-29-7 | 119 |
| pentanols (isomer mixture) | various | 102 - 131 |
| petroleum ether + benzin (non-aromatic hydrocarbons) | various | 25 - 80 |
| Propane | 74-98-6 | -42 |
| n-propyl alcohol | 71-23-8 | 97 |
| isopropyl alcohol | 67-63-0 | 82 |

| Substance | CAS-Number | Boiling point [°C] |
|---|---|---|
| ethylene glycol propyl ether, ektasolve ep, 2-propoxyethanol, ep solvent | 2807-30-9 | 149 |
| propyl acetate | 109-60-4 | 102 |
| styrene | 100-42-5 | 145 |
| tetrachloroethylene, perchlorethylene | 127-18-4 | 121 |
| tetrahydrofuran | 109-99-9 | 67 |
| toluene | 108-88-3 | 111 |
| trichloroethylene | 79-01-6 | 87 |
| o-xylene | 95-47-6 | 140 |
| m-xylene | 108-38-3 | 140 |
| p-xylene | 106-42-3 | 140 |
| xylene (isomer mixture) | various | 140 |

### A.4.2 VOC with boiling point between 150 and 240 °C

| Substance | CAS-Number | Boiling point [°C] |
|---|---|---|
| aromatic hydrocarbons (e.g. solvent naphtha) | various | >150 |
| diethyl carbitol | 112-36-7 | 189 |
| diethylene glycol dimethyl ether | 111-96-6 | 162 |
| 2-butoxyethanol | 111-76-2 | 171 |
| butyl carbitol | 112-34-5 | 231 |
| butyl cellosolve acetate | 112-07-2 | 192 |
| propylene glycol t-butyl ether | 57018-52-7 | 170 |
| 4-butyrolactone | 96-48-0 | 206 |
| cumene | 98-82-8 | 152 |
| p-cymene | 99-87-6 | 176 - 178 |
| ethylene glycol | 107-21-1 | 198 |
| hexyl alcohol (1-hexanol) | 111-27-3 | 156 |
| p-metha-1,8-diene (dipentene) | 138-86-3 | 178 |
| n-methyl-2-pyrolidone | 872-50-4 | 202 |
| petroleum (non-aromatic hydrocarbons) | various | 200 |
| trimethylbenzene (1,2,3-, 1,2,4- and 1,3,5- trimethylbenzene) | 526-73-8<br>95-63-6<br>108-67-8 | 162 - 176 |
| White Spirits (non-aromatic hydrocarbons) | various | 157 - 220 |

# Annex 5 Conversion chart Imperial ⇨ International metric units

| | | | |
|---|---|---|---|
| **Linear measures** | | | |
| 1 inch (in.) | ≅ | 0.0254 m (= 2.54 cm) | m = meter |
| 1 foot (ft.) | ≅ | 0.3048 m (= 30.48 cm) | cm = centimeter |
| 1 yard (yd.) | ≅ | 0.9144 m | |
| 1 (statute) mile (mi.) | ≅ | 1609.34 m (= 1.60934 km) | km = kilometer |
| **Square measures** | | | |
| 1 square inch (sq. in.) | ≅ | 0.000645 $m^2$ = 6.45 x $10^{-4}$ $m^2$ (= 6.45 $cm^2$) | |
| 1 square foot (sq. ft.) | ≅ | 0.092903 $m^2$ (= 929.03 $cm^2$) | $m^2$ = square meter |
| 1 square yard (sq. yd.) | ≅ | 0.836 $m^2$ | |
| 1 acre (a.) | ≅ | 0.004047 $km^2$ (= 4047 $m^2$) | |
| 1 square mile (sq. mi.) | ≅ | 2.59 $km^2$ | $km^2$ = square kilometer |
| **Cubic measures** | | | |
| 1 cubic inch (cu. in.) | ≅ | 0.000016387 $m^3$ = 1.6387 x $10^{-5}$ $m^3$ (= 16.387 $cm^3$) | |
| 1 cubic foot (cu. ft) | ≅ | 0.0283 $m^3$ = 28.3 l | $m^3$ = cubic meter |
| 1 ccf = 100 cu. ft | ≅ | 2.83 $m^3$ | |
| 1 cubic yard (cu. yd.) | ≅ | 0.765 $m^3$ | |
| 1 register ton (reg. tn.) | ≅ | 2.832 $m^3$ | |
| **British measures of capacity** | | | |
| 1 British gallon (Imp. gal.) | ≅ | 4.546 l (= 0.004546 $m^3$ = 0.4546 x $10^{-2}$ $m^3$) | l = liter |
| 1 British barrel (bbl., bl.) | ≅ | 1636 l (= 1.636 $m^3$) | |
| **U.S. measures of capacity** | | | |
| 1 U.S. gallon | ≅ | 3.785 l (= 0.3785 x $10^{-2}$ $m^3$ = 0.003785 $m^3$) | |
| 1 U.S. barrel | ≅ | 119 l (= 0.119 $m^3$) | |
| 1 U.S. barrel petroleum | ≅ | 158.97 l (= 0.15897 $m^3$) | |
| **Avoirdupois Weight** | | | |
| 1 ounce (oz. av.) | ≅ | 0.02835 kg (= 28.35 g) | kg = kilogram |
| 1 pound (lb. av.) | ≅ | 0.453 kg | |
| 1 ton (tn., t.) = long ton (tn. l.) | ≅ | 1.016 t (= 1016 kg) | t = ton |
| 1 ton (tn., t.) = short ton (tn. sh.) | ≅ | 0.90718 t (= 907.18 kg) | |
| **Energy** | | | |
| 1 British thermal unit (BTU) | ≅ | 1055.06 J (= 1.05506 kJ = 0.001055 MJ) | J = joule |
| 1000 British thermal unit (BTU) | ≅ | 1.055 MJ | MJ = megajoule |
| 1 therm = 100'000 BTU | ≅ | 105.5 MJ | |
| **Temperature** | | | |
| °C (Celsius) | = | (°F – 32) x 5/9 | |
| °F (Fahrenheit) | = | (°C x 9/5) + 32 | |

You will also find further assistance under: **www.ex.ac.uk/cimt/dictunit/dictunit.htm**