GLADDING McBEAN

90-8900000389

601 - 7th Street
Lincoln, CA 95648
(916) 645-3341
FAX (916) 645-1723

89 JUL -3 AM 9:01
OFFICE

June 29, 1989

Document Processing Center
Office of Toxic Substances TS-790
U.S. Environmental Protection Agency
401 M St., S.W.
Washington, D.C. 20460

Attn: CAIR Reporting Office

Re: CAIR Report Submitted by
Gladding McBean

Dear Sir:

Herewith is a copy of the CAIR REPORT we mailed to you last June 27, 1989. We are resubmitting this copy for two reasons. First, the cover page was not included in the original form and secondly, the date that appeared on page 4 of the said form should be June 27, 1989 and not September 27, 1989.

Your consideration regarding this matter is highly appreciated.

Very truly yours,

GLADDING McBEAN

Normita G. Callison

Normita G. Callison
Chief Control Engineer

NGC/vh
Enclosures

CONTAINS NO CBI

EPA

Form Approved
OMB No. 2010-0019
Approval Expires 12-31-89

EPA-OTS

000622496T

90-890000389

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Comprehensive Assessment Information Rule

REPORTING FORM

When completed, send this form to:	For Agency Use Only:
Document Processing Center Office of Toxic Substances, TS-790 U.S. Environmental Protection Agency 401 M Street, SW Washington, DC 20460 Attention: CAIR Reporting Office	Date of Receipt: _____ Document Control Number: _____ Docket Number: _____

EPA Form 7710-52

SECTION 1 GENERAL MANUFACTURER, IMPORTER, AND PROCESSOR INFORMATION

PART A GENERAL REPORTING INFORMATION

1.01 This Comprehensive Assessment Information Rule (CAIR) Reporting Form has been completed in response to the Federal Register Notice of..... [1][2] [2][2] [8][8]
mo. day year

CBI

[ ] a. If a Chemical Abstracts Service Number (CAS No.) is provided in the Federal Register, list the CAS No. ..... [0][2][6][4][7][1]-[6][2]-[5]

b. If a chemical substance CAS No. is not provided in the Federal Register, list either (i) the chemical name, (ii) the mixture name, or (iii) the trade name of the chemical substance as provided in the Federal Register.

(i) Chemical name as listed in the rule ..... N/A

(ii) Name of mixture as listed in the rule .... N/A

(iii) Trade name as listed in the rule ..... N/A

c. If a chemical category is provided in the Federal Register, report the name of the category as listed in the rule, the chemical substance CAS No. you are reporting on which falls under the listed category, and the chemical name of the substance you are reporting on which falls under the listed category.

Name of category as listed in the rule ..... N/A

CAS No. of chemical substance ..... [ ][ ][ ][ ][ ][ ]-[ ][ ]-[ ]

Name of chemical substance ..... N/A

1.02 Identify your reporting status under CAIR by circling the appropriate response(s).

CBI

[ ]

Manufacturer 1

Importer 2

Processor ..... (3)

X/P manufacturer reporting for customer who is a processor 4

X/P processor reporting for customer who is a processor 5

[ ] Mark (X) this box if you attach a continuation sheet.

CONTAINS NO CBI

EPA

Form Approved
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mo. day year

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b. If a chemical substance CAS No. is not provided in the Federal Register, list either (i) the chemical name, (ii) the mixture name, or (iii) the trade name of the chemical substance as provided in the Federal Register.

(i) Chemical name as listed in the rule ..... N/A

(ii) Name of mixture as listed in the rule .... N/A

(iii) Trade name as listed in the rule ..... N/A

c. If a chemical category is provided in the Federal Register, report the name of the category as listed in the rule, the chemical substance CAS No. you are reporting on which falls under the listed category, and the chemical name of the substance you are reporting on which falls under the listed category.

Name of category as listed in the rule ..... N/A

CAS No. of chemical substance ..... [ ][ ][ ][ ][ ][ ]-[ ][ ]-[ ]

Name of chemical substance ..... N/A

1.02 Identify your reporting status under CAIR by circling the appropriate response(s).

CBI

Manufacturer 1

[ ] Importer 2

Processor ..... (3)

X/P manufacturer reporting for customer who is a processor 4

X/P processor reporting for customer who is a processor 5

[ ] Mark (X) this box if you attach a continuation sheet.

1.03 Does the substance you are reporting on have an "x/p" designation associated with it in the above-listed Federal Register Notice?

CBI

[ ]

Yes ..... [X] Go to question 1.04

No ..... [ ] Go to question 1.05

1.04 a. Do you manufacture, import, or process the listed substance and distribute it under a trade name(s) different than that listed in the Federal Register Notice? Circle the appropriate response.

CBI

[ ]

Yes 1

No ..... (2)

b. Check the appropriate box below:

[ ] You have chosen to notify your customers of their reporting obligations

Provide the trade name(s) .... N/A

N/A

[ ] You have chosen to report for your customers

[ ] You have submitted the trade name(s) to EPA one day after the effective date of the rule in the Federal Register Notice under which you are reporting.

1.05 If you buy a trade name product and are reporting because you were notified of your reporting requirements by your trade name supplier, provide that trade name.

CBI

[ ]

Trade name ..... 585534 Elastan 6059 U ISO

Is the trade name product a mixture? Circle the appropriate response.

Yes 1

No ..... (2)

1.06 Certification -- The person who is responsible for the completion of this form must sign the certification statement below:

CBI

[ ]

"I hereby certify that, to the best of my knowledge and belief, all information entered on this form is complete and accurate."

Normita G. Callison	Normita G. Callison	6/27/89 ugc ~~9/27/89~~
NAME	SIGNATURE	DATE SIGNED

Chief Control Engineer	(916) 645 - 3341
TITLE	TELEPHONE NO.

[ ] Mark (X) this box if you attach a continuation sheet.

1.07 Exemptions From Reporting -- If you have provided EPA or another Federal agency with the required information on a CAIR Reporting Form for the listed substance within the past 3 years, and this information is current, accurate, and complete for the time period specified in the rule, then sign the certification below. You are required to complete section 1 of this CAIR form and provide any information now required but not previously submitted. Provide a copy of any previous submissions along with your Section 1 submission.

CBI

[__]

"I hereby certify that, to the best of my knowledge and belief, all required information which I have not included in this CAIR Reporting Form has been submitted to EPA within the past 3 years and is current, accurate, and complete for the time period specified in the rule."

N/A NAME	SIGNATURE	DATE SIGNED
TITLE	(_____) _____ - _____ TELEPHONE NO.	DATE OF PREVIOUS SUBMISSION

1.08 CBI Certification -- If you have asserted any CBI claims in this report you must certify that the following statements truthfully and accurately apply to all of those confidentiality claims which you have asserted.

CBI

[__]

"My company has taken measures to protect the confidentiality of the information, and it will continue to take these measures; the information is not, and has not been, reasonably ascertainable by other persons (other than government bodies) by using legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding) without my company's consent; the information is not publicly available elsewhere; and disclosure of the information would cause substantial harm to my company's competitive position."

N/A NAME	SIGNATURE	DATE SIGNED
TITLE	(_____) _____ - _____ TELEPHONE NO.	

[__] Mark (X) this box if you attach a continuation sheet.

PART B CORPORATE DATA

1.09 Facility Identification

CBI Name [G][L][A][D][D][I][N][G][ ][M][c][B][E][A][N]

[ ] Address [6][0][1][ ][7][t][h][ ][S][T][R][E][E][T]
Street

[L][I][N][C][O][L][N]
City

[C][A] [9][5][6][4][8]--[ ]
State Zip

Dun & Bradstreet Number .....[0][2]-[9][0][4]-[3][0][5][6]

EPA ID Number .....CAC..[0][0][0][0][1][4][0][5][0]

Employer ID Number .....CAL...0[0][0][0][0][2][4][6][2]

Primary Standard Industrial Classification (SIC) Code .....[2][8][2][1]

Other SIC Code .....[ ]

Other SIC Code .....[ ]

1.10 Company Headquarters Identification

CBI Name [P][A][C][I][F][I][C][ ][C][O][A][S][T][ ][B][L][D][G][ ][P][R][O][D][U][C][T]

[ ] Address [3][0][0][1][ ][I][ ][S][T][R][E][E][T]
Street

[S][A][C][R][A][M][E][N][T][O]
City

[C][A] [9][5][8][1][6]--[ ]
State Zip

Dun & Bradstreet Number .....[0][2]-[9][0][4]-[3][0][5][6]

Employer ID Number .....9[4][6][1][0][3][5][5][5]

[ ] Mark (X) this box if you attach a continuation sheet.

1.11 Parent Company Identification

CBI Name [P][A][C][I][F][I][C][ ][C][O][A][S][T][ ][B][L][D][G][ ][P][R][O][D][U][C][T]

[ ] Address [3][0][0][1][ ][I][ ][S][T][R][E][E][T][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
Street

[S][A][C][R][A][M][E][N][T][O][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
City

[C][A] [9][5][8][1][6]--[ ][ ][ ][ ]
State Zip

Dun & Bradstreet Number .....[0][2]-[9][0][4]-[3][0][5][6]

1.12 Technical Contact

CBI Name [N][O][R][M][I][T][A][ ][G][ ][C][A][L][L][I][S][O][N][ ][ ][ ][ ][ ][ ][ ][ ]

[ ] Title [C][H][I][E][F][ ][C][O][N][T][R][O][L][ ][E][N][G][I][N][E][E][R][ ][ ][ ][ ]

Address [6][0][1][ ][7][t][h][ ][S][T][R][E][E][T][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
Street

[L][I][N][C][O][L][N][ ]
City

[C][A] [9][5][6][4][8]--[ ][ ][ ][ ]
State Zip

Telephone Number .....[9][1][6]-[6][4][5]-[3][3][4][1]

1.13 This reporting year is from ..... [0][4] [8][7] to [0][3] [8][8]
Mo. Year Mo. Year

[ ] Mark (X) this box if you attach a continuation sheet.

1.14 Facility Acquired -- If you purchased this facility during the reporting year, provide the following information about the seller:

CBI Name of Seller [N]O]T]__]A]P]P]L]I]C]A]B]L]E]__]__]__]__]__]__]__]__]

[__] Mailing Address [__]
Street

[__]
City

[__]__] [__]__]__]__]__]--[__]__]__]__]
State Zip

Employer ID Number .....[__]__]__]__]__]__]__]__]

Date of Sale .....[__]__] [__]__] [__]__]
Mo. Day Year

Contact Person [__]

Telephone Number .....[__]__]__]-[__]__]__]-[__]__]__]__]

1.15 Facility Sold -- If you sold this facility during the reporting year, provide the following information about the buyer:

CBI Name of Buyer [N]O]T]__]A]P]P]L]I]C]A]B]L]E]__]__]__]__]__]__]__]__]__]

[__] Mailing Address [__]
Street

[__]
City

[__]__] [__]__]__]__]__]--[__]__]__]__]
State Zip

Employer ID Number .....[__]__]__]__]__]__]__]__]

Date of Purchase .....[__]__] [__]__] [__]__]
Mo. Day Year

Contact Person [__]

Telephone Number .....[__]__]__]-[__]__]__]-[__]__]__]__]

[__] Mark (X) this box if you attach a continuation sheet.

1.16 For each classification listed below, state the quantity of the listed substance that was manufactured, imported, or processed at your facility during the reporting year.

CBI

[ ]

Classification	Quantity (kg/yr)
Manufactured	N/A
Imported	N/A
Processed (include quantity repackaged)	67,385 kg
Of that quantity manufactured or imported, report that quantity:	
In storage at the beginning of the reporting year	N/A
For on-site use or processing	N/A
For direct commercial distribution (including export)	N/A
In storage at the end of the reporting year	N/A
Of that quantity processed, report that quantity:	
In storage at the beginning of the reporting year	10,056 kg
Processed as a reactant (chemical producer)	N/A
Processed as a formulation component (mixture producer)	N/A
Processed as an article component (article producer)	67,385 kg
Repackaged (including export)	N/A
In storage at the end of the reporting year	5,993 kg

[ ] Mark (X) this box if you attach a continuation sheet.

2.04 State the quantity of the listed substance that your facility manufactured, imported, or processed during the 3 corporate fiscal years preceding the reporting year in descending order.

CBI

[ ] Year ending ..... [0 3] [8 7]
Mo. Year

Quantity manufactured ..... N/A kg

Quantity imported ..... N/A kg

Quantity processed ..... 59,352 kg

Year ending ..... [0 3] [8 6]
Mo. Year

Quantity manufactured ..... N/A kg

Quantity imported ..... N/A kg

Quantity processed ..... 48,554 kg

Year ending ..... [0 3] [8 5]
Mo. Year

Quantity manufactured ..... N/A kg

Quantity imported ..... N/A kg

Quantity processed ..... 49,585 kg

2.05 Specify the manner in which you manufactured the listed substance. Circle all appropriate process types.

CBI

[ ]

Continuous process 1

Semicontinuous process 2

Batch process 3

RESPONSE NOT REQUIRED FOR TDI

[ ] Mark (X) this box if you attach a continuation sheet.

2.06 Specify the manner in which you processed the listed substance. Circle all appropriate process types.

CBI

[ ]

Continuous process 1

Semicontinuous process 2

Batch process 3

2.07 State your facility's name-plate capacity for manufacturing or processing the listed substance. (If you are a batch manufacturer or batch processor, do not answer this question.)

CBI

[ ]

Manufacturing capacity ..... N/A kg/yr

Processing capacity ..... U K kg/yr

2.08 If you intend to increase or decrease the quantity of the listed substance manufactured, imported, or processed at any time after your current corporate fiscal year, estimate the increase or decrease based upon the reporting year's production volume.

CBI

[ ]

	Manufacturing Quantity (kg)	Importing Quantity (kg)	Processing Quantity (kg)
Amount of increase			N/A
Amount of decrease			N/A

[ ] Mark (X) this box if you attach a continuation sheet.

2.09 For the three largest volume manufacturing or processing process types involving the listed substance, specify the number of days you manufactured or processed the listed substance during the reporting year. Also specify the average number of hours per day each process type was operated. (If only one or two operations are involved, list those.)

CBI

[ ]

	Days/Year	Average Hours/Day
Process Type #1 (The process type involving the largest quantity of the listed substance.)		
Manufactured	N/A	N/A
Processed	257	8
Process Type #2 (The process type involving the 2nd largest quantity of the listed substance.)		
Manufactured	N/A	N/A
Processed	N/A	N/A
Process Type #3 (The process type involving the 3rd largest quantity of the listed substance.)		
Manufactured	N/A	N/A
Processed	N/A	N/A

2.10 State the maximum daily inventory and average monthly inventory of the listed substance that was stored on-site during the reporting year in the form of a bulk chemical.

CBI

[ ]

Maximum daily inventory ..... _____ kg

Average monthly inventory ..... _____ kg

RESPONSE NOT REQUIRED FOR TDI

[ ] Mark (X) this box if you attach a continuation sheet.

2.11 Related Product Types -- List any byproducts, coproducts, or impurities present with the listed substance in concentrations greater than 0.1 percent as it is manufactured, imported, or processed. The source of byproducts, coproducts, or impurities means the source from which the byproducts, coproducts, or impurities are made or introduced into the product (e.g., carryover from raw material, reaction product, etc.).

CBI

[ ]

CAS No.	Chemical Name	Byproduct, Coproduct or Impurity[1]	Concentration (%) (specify ± % precision)	Source of Byproducts, Coproducts, or Impurities
UK	UK	UK	UK	UK

[1]Use the following codes to designate byproduct, coproduct, or impurity:

B = Byproduct
C = Coproduct
I = Impurity

[ ] Mark (X) this box if you attach a continuation sheet.

2.12 Existing Product Types -- List all existing product types which you manufactured, imported, or processed using the listed substance during the reporting year. List the quantity of listed substance you use for each product type as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI
[ ]

a. Product Types[1]	b. % of Quantity Manufactured, Imported, or Processed	c. % of Quantity Used Captively On-Site	d. Type of End-Users[2]
B	100%	0%	H

[1]Use the following codes to designate product types:

A = Solvent
B = Synthetic reactant
C = Catalyst/Initiator/Accelerator/Sensitizer
D = Inhibitor/Stabilizer/Scavenger/Antioxidant
E = Analytical reagent
F = Chelator/Coagulant/Sequestrant
G = Cleanser/Detergent/Degreaser
H = Lubricant/Friction modifier/Antiwear agent
I = Surfactant/Emulsifier
J = Flame retardant
K = Coating/Binder/Adhesive and additives
L = Moldable/Castable/Rubber and additives
M = Plasticizer
N = Dye/Pigment/Colorant/Ink and additives
O = Photographic/Reprographic chemical and additives
P = Electrodeposition/Plating chemicals
Q = Fuel and fuel additives
R = Explosive chemicals and additives
S = Fragrance/Flavor chemicals
T = Pollution control chemicals
U = Functional fluids and additives
V = Metal alloy and additives
W = Rheological modifier
X = Other (specify) _____

[2]Use the following codes to designate the type of end-users:

I = Industrial
CM = Commercial
CS = Consumer
H = Other (specify) Municipal Sewer System

[ ] Mark (X) this box if you attach a continuation sheet.

2.13 Expected Product Types -- Identify all product types which you expect to manufacture, import, or process using the listed substance at any time after your current corporate fiscal year. For each use, specify the quantity you expect to manufacture, import, or process for each use as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI
[ ]

a. Product Types[1]	b. % of Quantity Manufactured, Imported, or Processed	c. % of Quantity Used Captively On-Site	d. Type of End-Users[2]
B	100%	0%	H

[1]Use the following codes to designate product types:

A = Solvent
B = Synthetic reactant
C = Catalyst/Initiator/Accelerator/Sensitizer
D = Inhibitor/Stabilizer/Scavenger/Antioxidant
E = Analytical reagent
F = Chelator/Coagulant/Sequestrant
G = Cleanser/Detergent/Degreaser
H = Lubricant/Friction modifier/Antiwear agent
I = Surfactant/Emulsifier
J = Flame retardant
K = Coating/Binder/Adhesive and additives
L = Moldable/Castable/Rubber and additives
M = Plasticizer
N = Dye/Pigment/Colorant/Ink and additives
O = Photographic/Reprographic chemical and additives
P = Electrodeposition/Plating chemicals
Q = Fuel and fuel additives
R = Explosive chemicals and additives
S = Fragrance/Flavor chemicals
T = Pollution control chemicals
U = Functional fluids and additives
V = Metal alloy and additives
W = Rheological modifier
X = Other (specify) _____

[2]Use the following codes to designate the type of end-users:

I = Industrial
CM = Commercial
CS = Consumer
H = Other (specify) Municipal Sewer System

[ ] Mark (X) this box if you attach a continuation sheet.

2.14 Final Product -- Complete the following table for each type of final product
CBI manufactured, imported, or processed at your facility that contains the listed substance other than as an impurity.

[__]

a. Product Type[1]	b. Final Product's Physical Form[2]	c. Average % Composition of Listed Substance in Final Product	d. Type of End-Users[3]
N/A	N/A	N/A	N/A

[1]Use the following codes to designate product types:

A = Solvent
B = Synthetic reactant
C = Catalyst/Initiator/Accelerator/Sensitizer
D = Inhibitor/Stabilizer/Scavenger/Antioxidant
E = Analytical reagent
F = Chelator/Coagulant/Sequestrant
G = Cleanser/Detergent/Degreaser
H = Lubricant/Friction modifier/Antiwear agent
I = Surfactant/Emulsifier
J = Flame retardant
K = Coating/Binder/Adhesive and additives
L = Moldable/Castable/Rubber and additives
M = Plasticizer
N = Dye/Pigment/Colorant/Ink and additives
O = Photographic/Reprographic chemical and additives
P = Electrodeposition/Plating chemicals
Q = Fuel and fuel additives
R = Explosive chemicals and additives
S = Fragrance/Flavor chemicals
T = Pollution control chemicals
U = Functional fluids and additives
V = Metal alloy and additives
W = Rheological modifier
X = Other (specify) _____

[2]Use the following codes to designate the final product's physical form:

A = Gas
B = Liquid
C = Aqueous solution
D = Paste
E = Slurry
F1 = Powder
F2 = Crystalline solid
F3 = Granules
F4 = Other solid
G = Gel
H = Other (specify) _____

[3]Use the following codes to designate the type of end-users:

I = Industrial
CM = Commercial
CS = Consumer
H = Other (specify) _____

[__] Mark (X) this box if you attach a continuation sheet.

2.15 Circle all applicable modes of transportation used to deliver bulk shipments of the listed substance to off-site customers.
CBI

[ ] Truck ..... N/A 1

Railcar ..... N/A 2

Barge, Vessel .... N/A 3

Pipeline ..... N/A 4

Plane ..... N/A 5

Other (specify) _____ 6

2.16 Customer Use -- Estimate the quantity of the listed substance used by your customers or prepared by your customers during the reporting year for use under each category of end use listed (i-iv).
CBI

[ ]

Category of End Use

i. Industrial Products

Chemical or mixture ..... N/A kg/yr

Article ..... N/A kg/yr

ii. Commercial Products

Chemical or mixture ..... N/A kg/yr

Article ..... N/A kg/yr

iii. Consumer Products

Chemical or mixture ..... N/A kg/yr

Article ..... N/A kg/yr

iv. Other

Distribution (excluding export) ..... N/A kg/yr

Export ..... N/A kg/yr

Quantity of substance consumed as reactant ..... N/A kg/yr

Unknown customer uses ..... N/A kg/yr

[ ] Mark (X) this box if you attach a continuation sheet.

SECTION 3 PROCESSOR RAW MATERIAL IDENTIFICATION

PART A GENERAL DATA

3.01 Specify the quantity purchased and the average price paid for the listed substance for each major source of supply listed. Product trades are treated as purchases.
CBI The average price is the market value of the product that was traded for the listed substance.
[__]

Source of Supply	Quantity (kg)	Average Price ($/kg)
The listed substance was manufactured on-site.	N/A	N/A
The listed substance was transferred from a different company site.	N/A	N/A
The listed substance was purchased directly from a manufacturer or importer.	63,323	$3.102
The listed substance was purchased from a distributor or repackager.	N/A	N/A
The listed substance was purchased from a mixture producer.	N/A	N/A

3.02 Circle all applicable modes of transportation used to deliver the listed substance to your facility.
CBI
[__]

Truck ..... (1)
Railcar 2
Barge, Vessel 3
Pipeline 4
Plane 5
Other (specify) _____ 6

[__] Mark (X) this box if you attach a continuation sheet.

3.03 a. Circle all applicable containers used to transport the listed substance to your facility.
CBI

[ ]

Bags 1

Boxes 2

Free standing tank cylinders 3

Tank rail cars 4

Hopper cars 5

Tank trucks ..... (6)

Hopper trucks 7

Drums 8

Pipeline 9

Other (specify) _____ 10

b. If the listed substance is transported in pressurized tank cylinders, tank rail cars, or tank trucks, state the pressure of the tanks.

Tank cylinders ..... N/A mmHg

Tank rail cars ..... N/A mmHg

Tank trucks ..... N/A mmHg

[ ] Mark (X) this box if you attach a continuation sheet.

PART B RAW MATERIAL IN THE FORM OF A MIXTURE

3.04 If you obtain the listed substance in the form of a mixture, list the trade name(s) of the mixture, the name of its supplier(s) or manufacturer(s), an estimate of the average percent composition by weight of the listed substance in the mixture, and the amount of mixture processed during the reporting year.

CBI

[ ]

Trade Name	Supplier or Manufacturer	Average % Composition by Weight (specify ± % precision)	Amount Processed (kg/yr)
N/A	N/A	N/A	N/A

[ ] Mark (X) this box if you attach a continuation sheet.

PART C RAW MATERIAL VOLUME

3.05 CBI [ ] State the quantity of the listed substance used as a raw material during the reporting year in the form of a class I chemical, class II chemical, or polymer, and the percent composition, by weight, of the listed substance.

	Quantity Used (kg/yr)	% Composition by Weight of Listed Substance in Raw Material (specify ± % precision)
Class I chemical	67,385 kg	100%
	N/A	N/A
	N/A	N/A
Class II chemical	N/A	N/A
	N/A	N/A
	N/A	N/A
Polymer	N/A	N/A
	N/A	N/A
	N/A	N/A

[ ] Mark (X) this box if you attach a continuation sheet.

SECTION 4 PHYSICAL/CHEMICAL PROPERTIES

General Instructions:

If you are reporting on a mixture as defined in the glossary, reply to questions in Section 4 that are inappropriate to mixtures by stating "NA -- mixture."

For questions 4.06-4.15, if you possess any hazard warning statement, label, MSDS, or other notice that addresses the information requested, you may submit a copy or reasonable facsimile in lieu of answering those questions which it addresses.

PART A PHYSICAL/CHEMICAL DATA SUMMARY

4.01 Specify the percent purity for the three major[1] technical grade(s) of the listed substance as it is manufactured, imported, or processed. Measure the purity of the substance in the final product form for manufacturing activities, at the time you import the substance, or at the point you begin to process the substance.

CBI

[ ]

	Manufacture	Import	Process
Technical grade #1	N/A % purity	N/A % purity	50 % purity
Technical grade #2	N/A % purity	N/A % purity	N/A % purity
Technical grade #3	N/A % purity	N/A % purity	N/A % purity

[1]Major = Greatest quantity of listed substance manufactured, imported or processed.

4.02 Submit your most recently updated Material Safety Data Sheet (MSDS) for the listed substance, and for every formulation containing the listed substance. If you possess an MSDS that you developed and an MSDS developed by a different source, submit your version. Indicate whether at least one MSDS has been submitted by circling the appropriate response.

Yes ..... (1)

No 2

Indicate whether the MSDS was developed by your company or by a different source.

Your company 1

Another source ..... (2)

[ ] Mark (X) this box if you attach a continuation sheet.

4.03 Submit a copy or reasonable facsimile of any hazard information (other than an MSDS) that is provided to your customers/users regarding the listed substance or any formulation containing the listed substance. Indicate whether this information has been submitted by circling the appropriate response.

Yes ..... (1)

No 2

4.04 For each activity that uses the listed substance, circle all the applicable number(s) corresponding to each physical state of the listed substance during the activity listed. Physical states for importing and processing activities are determined at the time you import or begin to process the listed substance. Physical states for manufacturing, storage, disposal and transport activities are determined using the final state of the product.

CBI

[ ]

	Physical State				
Activity	Solid	Slurry	Liquid	Liquified Gas	Gas
Manufacture	1	2	3	4	5
Import	1	2	3	4	5
Process	1	2	(3)	4	5
Store	1	2	(3)	4	5
Dispose	1	2	3	4	5
Transport	1	2	3	4	5

[ ] Mark (X) this box if you attach a continuation sheet.

4.05 Particle Size -- If the listed substance exists in particulate form during any of the following activities, indicate for each applicable physical state the size and the percentage distribution of the listed substance by activity. Do not include particles ≥10 microns in diameter. Measure the physical state and particle sizes for importing and processing activities at the time you import or begin to process the listed substance. Measure the physical state and particle sizes for manufacturing storage, disposal and transport activities using the final state of the product.

CBI

[ ]

Physical State		Manufacture	Import	Process	Store	Dispose	Transport
Dust	<1 micron			N/A			
	1 to <5 microns			N/A			
	5 to <10 microns			N/A			
Powder	<1 micron			N/A			
	1 to <5 microns			N/A			
	5 to <10 microns			N/A			
Fiber	<1 micron			N/A			
	1 to <5 microns			N/A			
	5 to <10 microns			N/A			
Aerosol	<1 micron			N/A			
	1 to <5 microns			N/A			
	5 to <10 microns			N/A			

[ ] Mark (X) this box if you attach a continuation sheet.

SECTION 5 ENVIRONMENTAL FATE

PART A RATE CONSTANTS AND TRANSFORMATION PRODUCTS

5.01 Indicate the rate constants for the following transformation processes.

a. Photolysis:

Absorption spectrum coefficient (peak) .... U K (1/M cm) at U K nm

Reaction quantum yield, ϕ ..... U K _____ at U K nm

Direct photolysis rate constant, k_p, at ... U K _____ 1/hr _____ latitude

b. Oxidation constants at 25°C:

For $^1O_2$ (singlet oxygen), k_{ox} ..... U K _____ 1/M hr

For RO_2 (peroxy radical), k_{ox} ..... U K _____ 1/M hr

c. Five-day biochemical oxygen demand, BOD_5 ... U K _____ mg/l

d. Biotransformation rate constant:

For bacterial transformation in water, k_b... U K _____ 1/hr

Specify culture ..... U K _____

e. Hydrolysis rate constants:

For base-promoted process, k_B ..... U K _____ 1/M hr

For acid-promoted process, k_A ..... U K _____ 1/M hr

For neutral process, k_N ..... U K _____ 1/hr

f. Chemical reduction rate (specify conditions) U K _____

_____

g. Other (such as spontaneous degradation) ... U K _____

_____ U K _____

[ ] Mark (X) this box if you attach a continuation sheet.

PART B PARTITION COEFFICIENTS

5.02 a. Specify the half-life of the listed substance in the following media.

Media	Half-life (specify units)
Groundwater	<1 year
Atmosphere	3.3 years
Surface water	0.5 seconds to 3 days (ph & temp.)
Soil	N.A.

b. Identify the listed substance's known transformation products that have a half-life greater than 24 hours.

	CAS No.	Name	Half-life (specify units)		Media
a.	N.A.	3, 3' - diisocyanato-		in	
		4,4'-dimethyl carbanilide	N.A.	in	H_2O
b.	N.A	2,2'-dimethyl		in	
		3,3' diisocyanato carbanilide	N.A.	in	H_2O
c.	N.A.	Higher TDI - urea oligomers	N.A.	in	H_2O

5.03 Specify the octanol-water partition coefficient, K_{ow} ... 0.21 at 25°C

Method of calculation or determination ..... From Log P Value

5.04 Specify the soil-water partition coefficient, K_d ..... N/A* at 25°C

Soil type ..... N/A

5.05 Specify the organic carbon-water partition coefficient, K_{oc} ..... N/A* at 25°C

5.06 Specify the Henry's Law Constant, H ..... N/A* atm-m^3/mole

*Decomposes rapidly in H_2O

[ ] Mark (X) this box if you attach a continuation sheet.

5.07 List the bioconcentration factor (BCF) of the listed substance, the species for which it was determined, and the type of test used in deriving the BCF.

Bioconcentration Factor	Species	Test[1]
N/A	N/A	N/A

[1]Use the following codes to designate the type of test:

F = Flowthrough
S = Static

[ ] Mark (X) this box if you attach a continuation sheet.

General Instructions:

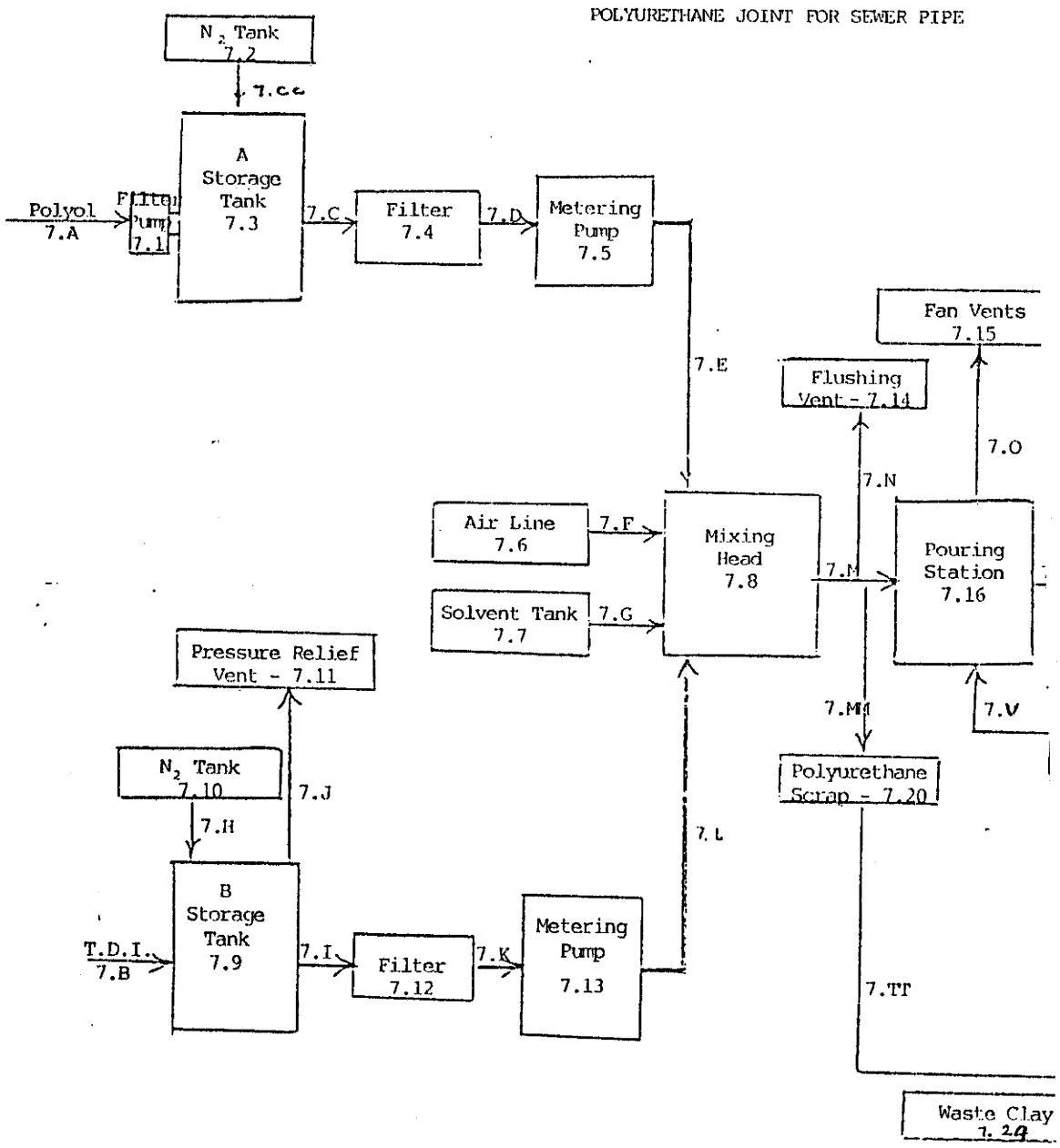
For questions 7.04-7.06, provide a separate response for each proc provided in questions 7.01, 7.02, and 7.03. Identify the process information is extracted.

PART A MANUFACTURING AND PROCESSING PROCESS TYPE DESCRIPTION

7.01 In accordance with the instructions, provide a process block major (greatest volume) process type involving the listed su

CBI

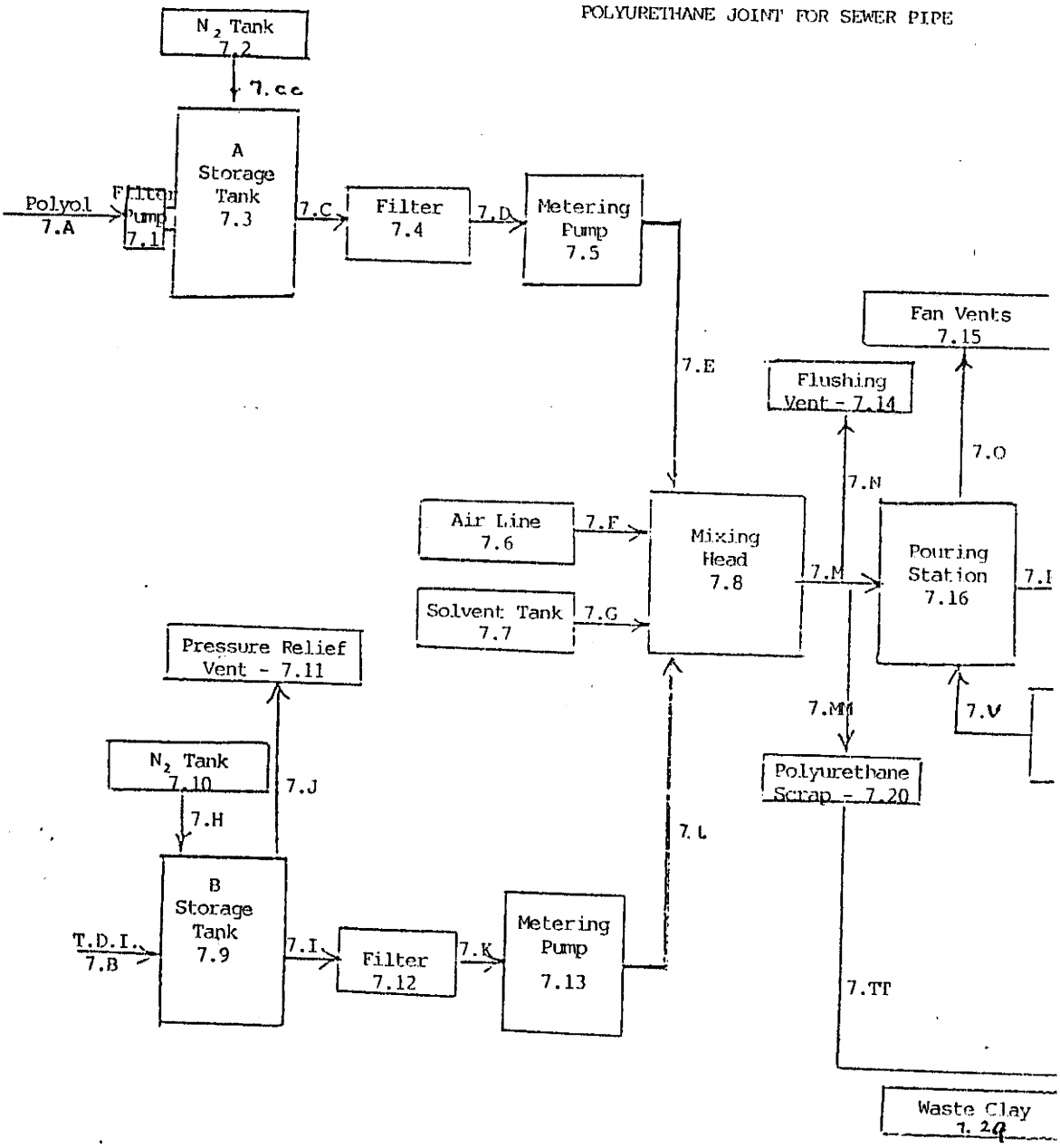
[ ] Process type ..... Polyurethane Joints Speed Sealant



7.03 In accordance with the instructions, provide a process block process emission streams and emission points that contain the which, if combined, would total at least 90 percent of all fa treated before emission into the environment. If all such em from one process type, provide a process block flow diagram u for question 7.01. If all such emissions are released from m type, provide a process block flow diagram showing each proce block.

CBI

[ ] Process type ..... Polyurethane Joints Speed Sealant

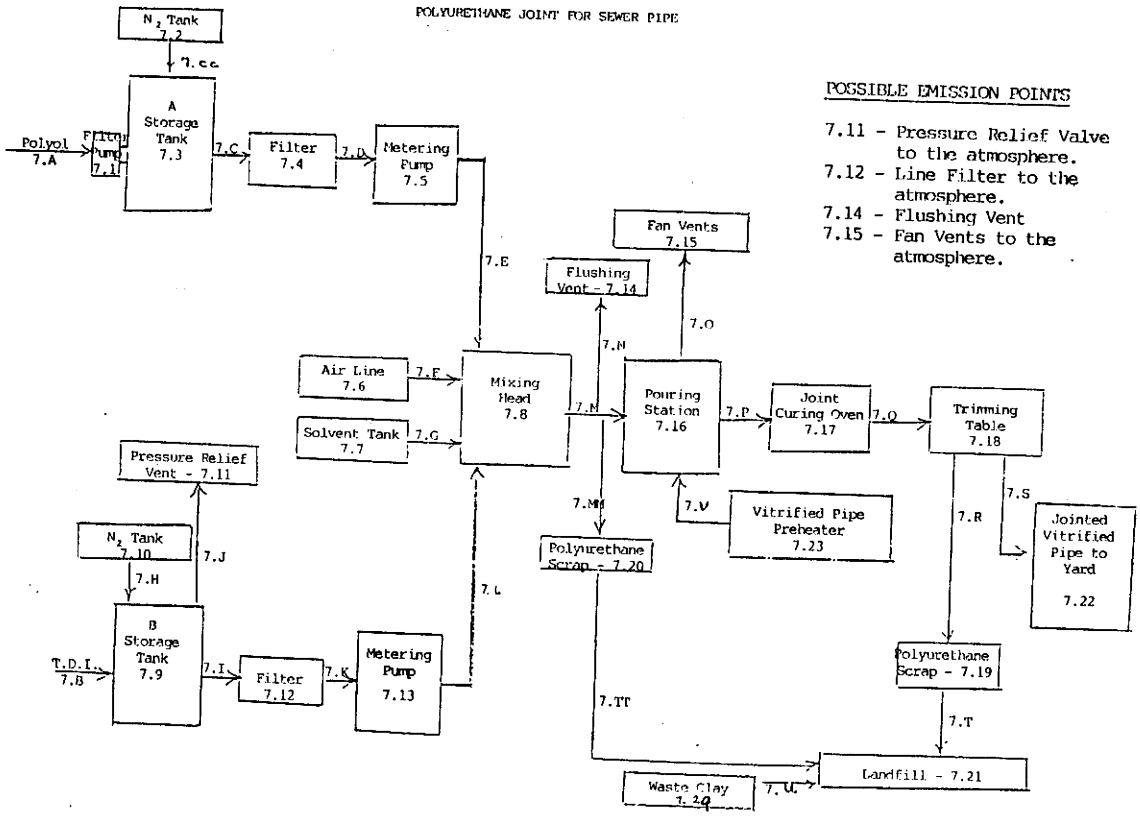


[ ] Mark (X) this box if you attach a continuation sheet.

7.03 In accordance with the instructions, provide a process block flow diagram showing all process emission streams and emission points that contain the listed substance and which, if combined, would total at least 90 percent of all facility emissions if not treated before emission into the environment. If all such emissions are released from one process type, provide a process block flow diagram using the instructions for question 7.01. If all such emissions are released from more than one process type, provide a process block flow diagram showing each process type as a separate block.

CBI

[ ] Process type ..... Polyurethane Joints Speed Sealant



[ ] Mark (X) this box if you attach a continuation sheet.

SECTION 7 MANUFACTURING AND PROCESSING INFORMATION

General Instructions:

For questions 7.04-7.06, provide a separate response for each process block flow diagram provided in questions 7.01, 7.02, and 7.03. Identify the process type from which the information is extracted.

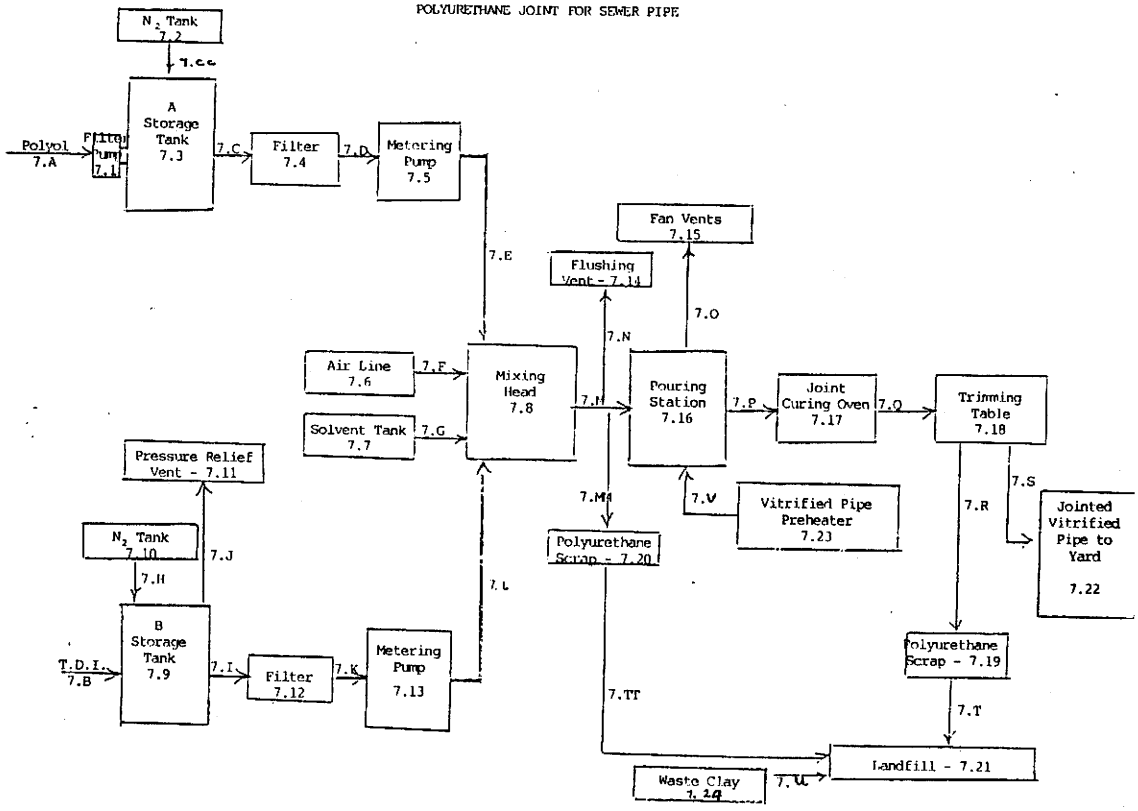
PART A MANUFACTURING AND PROCESSING PROCESS TYPE DESCRIPTION

7.01 In accordance with the instructions, provide a process block flow diagram showing the major (greatest volume) process type involving the listed substance.

CBI

[ ] Process type ..... Polyurethane Joints Speed Sealant

POLYURETHANE JOINT FOR SEWER PIPE



7.04 Describe the typical equipment types for each unit operation identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

[ ] Process type ..... POLYURETHANE JOINT SPEED SEALANT

Unit Operation ID Number	Typical Equipment Type	Operating Temperature Range (°C)	Operating Pressure Range (mm Hg)	Vessel Composition
7.1	Filter & Pump	Ambient	1300	Carbon Steel
7.2 & 7.10	N_2 Tanks	Ambient	1810	Cr-Mo Steel
7.3 & 7.9	Holding Tanks	27°C - 33°C	1550	Carbon Steel
7.4 & 7.12	Filter	Ambient	Atmospheric	Carbon Steel
7.5 & 7.13	Metering Pumps	Ambient	1300	Stainless Steel
7.6	Air Line	Ambient	1550	Cast Iron
7.7	Holding Tanks	Ambient	1550	Carbon Steel
7.11	Release Vents	Ambient	N/A	Galvanized
7.8	Mixing Head	Ambient	2068	Galvanized
7.14	Flushing Vents	Ambient	Atmospheric	Galvanized
7.15	Fan Vents	Ambient	Atmospheric	Galvanized
7.16	Mold Pourings	Ambient	Atmospheric	C.I.
7.17	Curing Oven	60°C - 70°C	Atmospheric	Refractory Brick
7.18	Trimming Table	Ambient	Atmospheric	N/A
7.19 & 7.20	(Scrap)	Ambient	Atmospheric	N/A
7.21	(Landfill)	Ambient	Atmospheric	N/A
7.22	(Vitrified Clay)	60°C - 70°C	Atmospheric	N/A
7.23	Vitrified Clay Preheater	53°C	Atmospheric	N/A
7.24	(Waste Clay)	N/A	N/A	N/A

[ ] Mark (X) this box if you attach a continuation sheet.

7.05 Describe each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

[ ] Process type ..... Polyurethane Joint Sealant

Process Stream ID Code	Process Stream Description	Physical State[1]	Stream Flow (kg/yr)
7.A,7.C,7.D,7.E	Polyol	OL	510,778
7.B,7.I,7.K,7.L	T.D.I.	OL	67,385
7.F	Air	GU	U K
7.CC,7.H	N_2	GU	U K
7.G,7.N	Methylene Chloride	OL	14,487
7.M,7.MM,7.P	Polyurethane	OL	U K
7.Q,7.R,7.S	Polyurethane Joint	SO	523,401
7.T,7.TT	Polyurethane Scrap	SO	54,772 (±)
7.U	Waste Clay	SO	U K

[1]Use the following codes to designate the physical state for each process stream:

GC = Gas (condensible at ambient temperature and pressure)
GU = Gas (uncondensible at ambient temperature and pressure)
SO = Solid
SY = Sludge or slurry
AL = Aqueous liquid
OL = Organic liquid
IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

[ ] Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

CBI

[ ] Process type ..... Polyurethane Joint Sealant

a. Process Stream ID Code	b. Known Compounds[1]	c. Concentrations[2,3] (% or ppm)	d. Other Expected Compounds	e. Estimated Concentrations (% or ppm)
7.A,7.C,7.D,7.E	Polyol	100%	N/A	N/A
7.B,7.I,7.K,7.L	TDI	50%	Prepolymer	50%
7.CC & 7.H	Nitrogen Gas	100%	N/A	N/A
7.G,7.N	Methylene Chloride	100%	N/A	N/A
7.M, 7.MM	Polyurethane (L)	100%	N/A	N/A
7.P,7.Q,7.S, 7.R & 7.T	Polyurethane (SQ)	100%	N/A	N/A
7.U	Raw Ground Clay	100%	N/A	N/A

7.06 continued below

[ ] Mark (X) this box if you attach a continuation sheet.

7.06 (continued)

[1]For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component. Assign an additive package number to each additive package and list this number in column b. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

Additive Package Number	Components of Additive Package	Concentrations (% or ppm)
1	N/A	N/A
2		
3		
4		
5		

[2]Use the following codes to designate how the concentration was determined:

A = Analytical result
E = Engineering judgement/calculation

[3]Use the following codes to designate how the concentration was measured:

V = Volume
W = Weight

[ ] Mark (X) this box if you attach a continuation sheet.

PART B RESIDUAL GENERATION AND CHARACTERIZATION

8.05 Characterize each process stream identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

CBI

[ ] Process type ..... Polyurethane Joint Sealant

a. Stream ID Code	b. Type of Hazardous Waste[1]	c. Physical State of Residual[2]	d. Known Compounds[3]	e. Concentrations (% or ppm)[4,5,6]	f. Other Expected Compounds	g. Estimated Concentrations (% or ppm)
	NO RESIDUAL TREATMENT BEING DONE					

8.05 continued below

[ ] Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

[1]Use the following codes to designate the type of hazardous waste:

I = Ignitable
C = Corrosive
R = Reactive
E = EP toxic
T = Toxic
H = Acutely hazardous

[2]Use the following codes to designate the physical state of the residual:

GC = Gas (condensible at ambient temperature and pressure)
GU = Gas (uncondensible at ambient temperature and pressure)
SO = Solid
SY = Sludge or slurry
AL = Aqueous liquid
OL = Organic liquid
IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

8.05 continued below

[ ] Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

[3]For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component. Assign an additive package number to each additive package and list this number in column d. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

Additive Package Number	Components of Additive Package	Concentrations (% or ppm)
1	N/A	N/A
2		
3		
4		
5		

[4]Use the following codes to designate how the concentration was determined:

A = Analytical result
E = Engineering judgement/calculation

8.05 continued below

[ ] Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

[5]Use the following codes to designate how the concentration was measured:

V = Volume
W = Weight

[6]Specify the analytical test methods used and their detection limits in the table below. Assign a code to each test method used and list those codes in column e.

Code	Method	Detection Limit (± ug/l)
1	N/A	N/A
2		
3		
4		
5		
6		

[ ] Mark (X) this box if you attach a continuation sheet.

8.06 Characterize each process stream identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

CBI

[ ] Process type ..... Polyurethane Joint for Sewer Pipe

a. Stream ID Code	b. Waste Description Code[1]	c. Management Method Code[2]	d. Residual Quantities (kg/yr)	e. Management of Residual (%) On-Site	e. Off-Site	f. Costs for Off-Site Management (per kg)	g. Changes in Management Methods
7.TT	882	1D					
			54,772	100	N/A	N/A	N/A
7.T	882	1D					

[1]Use the codes provided in Exhibit 8-1 to designate the waste descriptions

[2]Use the codes provided in Exhibit 8-2 to designate the management methods

[ ] Mark (X) this box if you attach a continuation sheet.

PART A EMPLOYMENT AND POTENTIAL EXPOSURE PROFILE

9.01 Mark (X) the appropriate column to indicate whether your company maintains records on the following data elements for hourly and salaried workers. Specify for each data element the year in which you began maintaining records and the number of years the records for that data element are maintained. (Refer to the instructions for further explanation and an example.)

CBI

[ ]

Data Element	Data are Maintained for: Hourly Workers	Salaried Workers	Year in Which Data Collection Began	Number of Years Records Are Maintained
Date of hire	X	X	1976	13
Age at hire	X	X	1976	13
Work history of individual before employment at your facility	X	X	1976	13
Sex	X	X	1976	13
Race	X	X	1976	13
Job titles	X	X	1976	13
Start date for each job title	X	X	1976	13
End date for each job title	X	X	1976	13
Work area industrial hygiene monitoring data	X	X	July, 1989	Started
Personal employee monitoring data	X	X	July, 1989	Started
Employee medical history	X	X	1976	13
Employee smoking history	N/A	N/A	N/A	N/A
Accident history	X	X	1976	13
Retirement date	X	X	1976	13
Termination date	X	X	1976	13
Vital status of retirees	N/A	N/A	N/A	N/A
Cause of death data	N/A	N/A	N/A	N/A

[ ] Mark (X) this box if you attach a continuation sheet.

9.02 In accordance with the instructions, complete the following table for each activity in which you engage.

CBI

[ ]

a. Activity	b. Process Category	c. Yearly Quantity (kg)	d. Total Workers	e. Total Worker-Hours
Manufacture of the listed substance	Enclosed	N/A	N/A	N/A
	Controlled Release	N/A	N/A	N/A
	Open	N/A	N/A	N/A
On-site use as reactant	Enclosed	N/A	N/A	N/A
	Controlled Release	N/A	N/A	N/A
	Open	67,385	11	22,880
On-site use as nonreactant	Enclosed	N/A	N/A	N/A
	Controlled Release	N/A	N/A	N/A
	Open	N/A	N/A	N/A
On-site preparation of products	Enclosed	N/A	N/A	N/A
	Controlled Release	N/A	N/A	N/A
	Open	N/A	N/A	N/A

[ ] Mark (X) this box if you attach a continuation sheet.

9.03 Provide a descriptive job title for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance.

CBI

[ ]

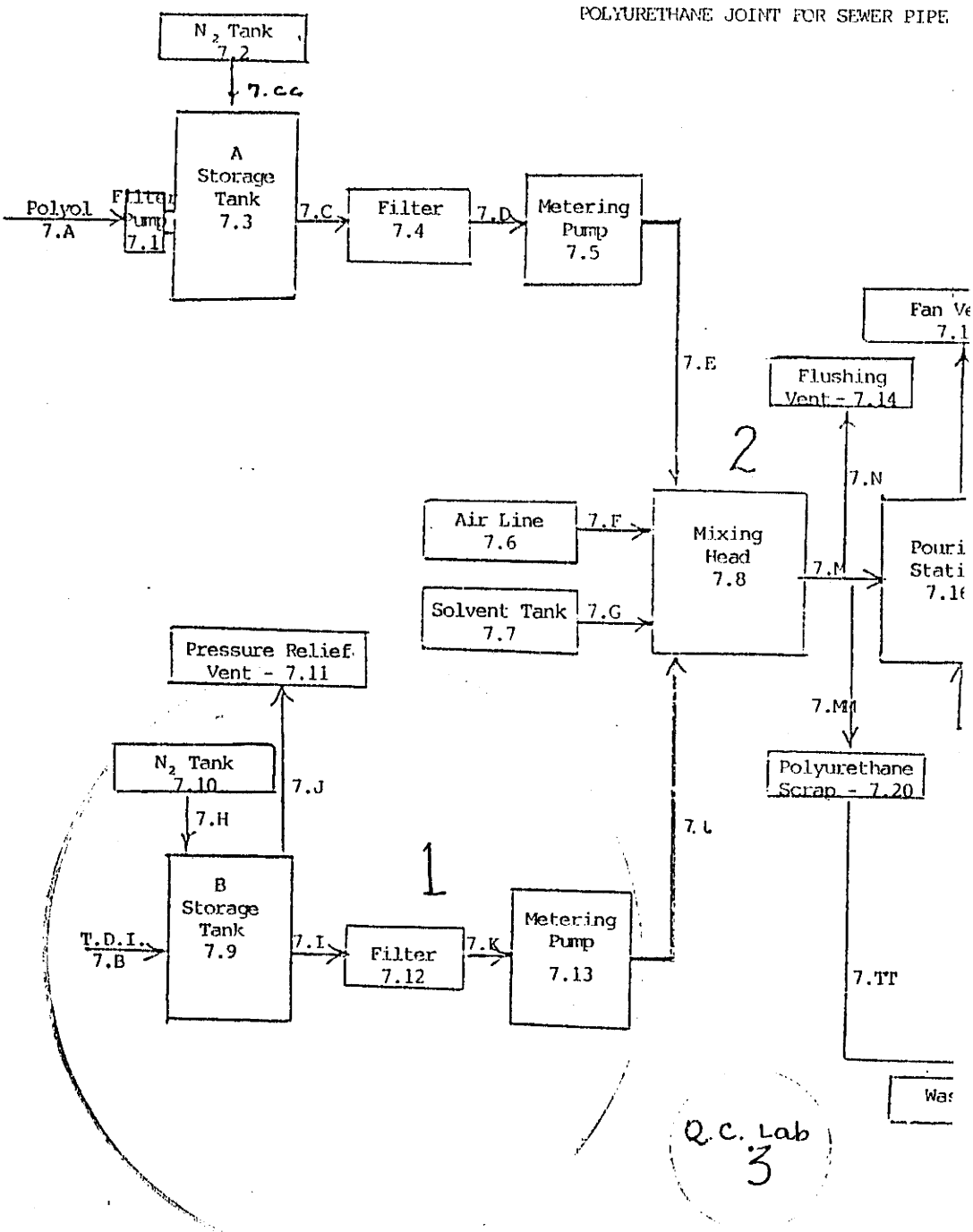
Labor Category	Descriptive Job Title
A	556.130-010 - Leadman/Asst. Leadman
B	556.686-018 - Mold Stripper
C	556.687-026 - Pourer/Polyurethane
D	556.678-014 - Mold (Cell Preparer)
E	
F	
G	
H	
I	
J	

[ ] Mark (X) this box if you attach a continuation sheet.

9.04 **In accordance with the instructions, provide your process indicate associated work areas.**

CBI

[ ] **Process type .....** Polyurethane Joint Sealant

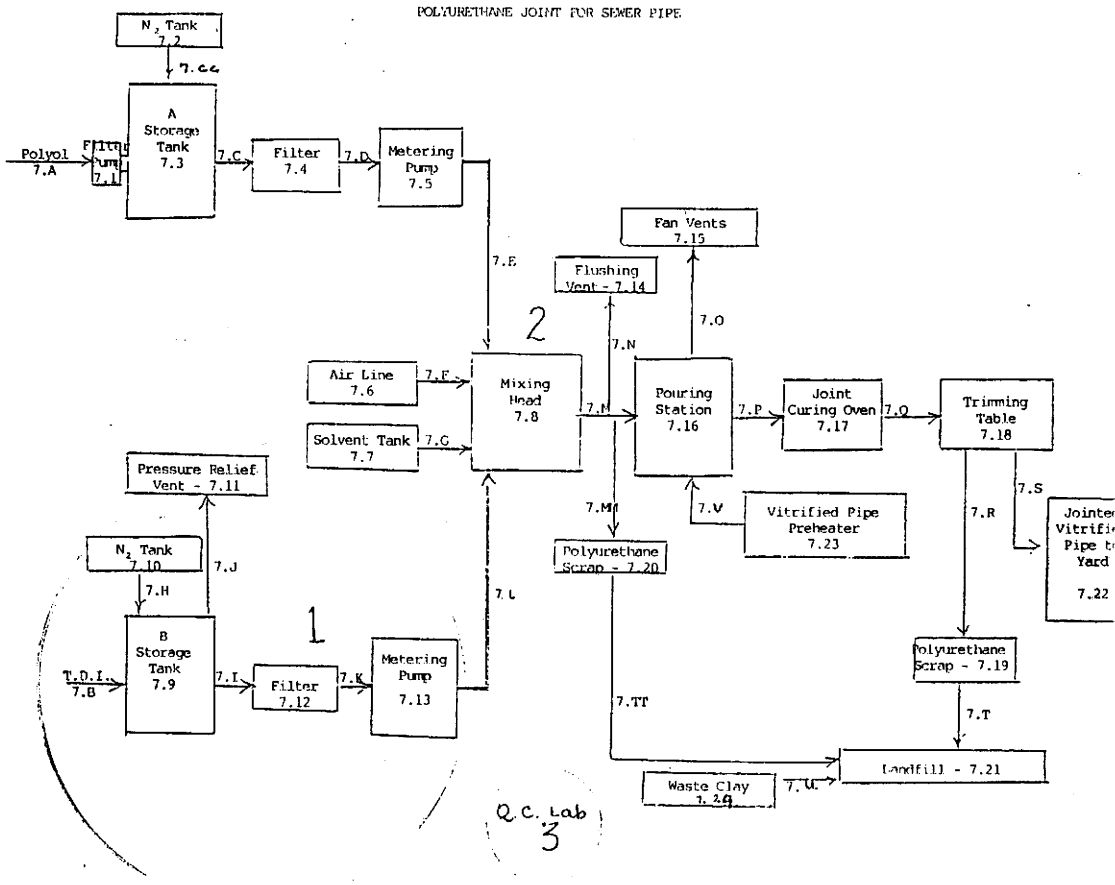


[ ] **Mark (X) this box if you attach a continuation sheet.**

9.04 **In accordance with the instructions, provide your process block flow diagram(s) and indicate associated work areas.**

CBI

[ ] **Process type .....** Polyurethane Joint Sealant



[ ] **Mark (X) this box if you attach a continuation sheet.**

9.05 Describe the various work area(s) shown in question 9.04 that encompass workers who may potentially come in contact with or be exposed to the listed substance. Add any additional areas not shown in the process block flow diagram in question 7.01 or 7.02. Photocopy this question and complete it separately for each process type.

CBI

[ ] Process type ..... Polyurethane Joint Sealant

Work Area ID	Description of Work Areas and Worker Activities
1	Filter & Metering Pump - Workers clean and replace parts.
2	Metering Head & Pouring Station - Workers pour polyurethane & flash the line.
3	
4	Quality Control Lab - Workers test material prior to use.
5	
6	
7	
8	
9	
10	

[ ] Mark (X) this box if you attach a continuation sheet.

9.06 Complete the following table for each work area identified in question 9.05, and for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

[ ] Process type ..... Polyurethane Joint Sealant

Work area ..... 1 and 2

Labor Category	Number of Workers Exposed	Mode of Exposure (e.g., direct skin contact)	Physical State of Listed Substance[1]	Average Length of Exposure Per Day[2]	Number of Days per Year Exposed
556.130-010	3	Direct Contact	OL	A	260
556.686-018	2	Inhalation	GU	E	260
556.687-026	4	Inhalation	GU	E	260
556.678-014	2	Inhalation	GU	E	260

[1] Use the following codes to designate the physical state of the listed substance at the point of exposure:

GC = Gas (condensible at ambient temperature and pressure)
GU = Gas (uncondensible at ambient temperature and pressure; includes fumes, vapors, etc.)
SO = Solid
SY = Sludge or slurry
AL = Aqueous liquid
OL = Organic liquid
IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

[2] Use the following codes to designate average length of exposure per day:

A = 15 minutes or less
B = Greater than 15 minutes, but not exceeding 1 hour
C = Greater than one hour, but not exceeding 2 hours
D = Greater than 2 hours, but not exceeding 4 hours
E = Greater than 4 hours, but not exceeding 8 hours
F = Greater than 8 hours

[ ] Mark (X) this box if you attach a continuation sheet.

9.07 For each labor category represented in question 9.06, indicate the 8-hour Time Weighted Average (TWA) exposure levels and the 15-minute peak exposure levels. Photocopy this question and complete it separately for each process type and work area.

CBI

[ ] Process type ..... Polyurethane Joint Sealant

Work area ..... Speedseal/Large Diameter

Labor Category	8-hour TWA Exposure Level (ppm, mg/m^3, other-specify)	15-Minute Peak Exposure Level (ppm, mg/m^3, other-specify)
556.130-010	U K	U K
556.686-018	U K	U K
556.687-026	U K	U K
556.687-014	U K	U K

[ ] Mark (X) this box if you attach a continuation sheet.

PART B WORK PLACE MONITORING PROGRAM

9.08 If you monitor worker exposure to the listed substance, complete the following table.

CBI

[ ]

Sample/Test	Work Area ID	Testing Frequency (per year)	Number of Samples (per test)	Who Samples[1]	Analyzed In-House (Y/N)	Number of Years Records Maintained
Personal breathing zone	NOTE NO. 1			A		
General work area (air)						
Wipe samples	N/A	N/A	N/A	N/A	N/A	N/A
Adhesive patches	N/A	N/A	N/A	N/A	N/A	N/A
Blood samples	N/A	N/A	N/A	N/A	N/A	N/A
Urine samples	N/A	N/A	N/A	N/A	N/A	N/A
Respiratory samples	NOTE NO. 2					
Allergy tests	N/A	N/A	N/A	N/A	N/A	N/A
Other (specify)						
Other (specify)						

NOTE NO. 2 - Program will start July 1989, using Drager Tube sampling and GMD Sure-Spot TDI Badges.

NOTE NO. 2 - Medical Testing program will start July, 1989.

---

[1] Use the following codes to designate who takes the monitoring samples:

A = Plant industrial hygienist
B = Insurance carrier
C = OSHA consultant
D = Other (specify) Company' assigned physicians and laboratory.

[ ] Mark (X) this box if you attach a continuation sheet.

9.09 For each sample type identified in question 9.08, describe the type of sampling and analytical methodology used for each type of sample.
CBI

[ ] Sample Type — Sampling and Analytical Methodology

*Personal Breathing Zone - Workers wear TDI Badge.

*Working Area - Air sampling using TDI Drager Tube.

*Program will start July 1989.

9.10 If you conduct personal and/or ambient air monitoring for the listed substance, specify the following information for each equipment type used.

CBI

[ ] Equipment Type[1]	Detection Limit[2]	Manufacturer	Averaging Time (hr)	Model Number
H	A	Drager	.6 hr.	6724501
D	A	GMD	8 hr.	550 Sure-Spot

[1]Use the following codes to designate personal air monitoring equipment types:

A = Passive dosimeter
B = Detector tube
C = Charcoal filtration tube with pump
D = Other (specify) TDI Badges

Use the following codes to designate ambient air monitoring equipment types:

E = Stationary monitors located within work area
F = Stationary monitors located within facility
G = Stationary monitors located at plant boundary
H = Mobile monitoring equipment (specify) _____
I = Other (specify) _____

[2]Use the following codes to designate detection limit units:

A = ppm
B = Fibers/cubic centimeter (f/cc)
C = Micrograms/cubic meter (μ/m^3)

[ ] Mark (X) this box if you attach a continuation sheet.

9.11 If you conduct routine medical tests for monitoring the health effects of exposure to the listed substance, specify the type and frequency of the tests.

CBI

[ ] Test Description	Frequency (weekly, monthly, yearly, etc.)
Respiratory Test	Yearly

[ ] Mark (X) this box if you attach a continuation sheet.

PART C ENGINEERING CONTROLS

9.12 Describe the engineering controls that you use to reduce or eliminate worker exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

[__] Process type ..... Polyurethane Joint Sealant

Work area ..... 1. & 2

Engineering Controls	Used (Y/N)	Year Installed	Upgraded (Y/N)	Year Upgraded
Ventilation:				
Local exhaust	Y	1963	Y	1987
General dilution	N/A	N/A	N/A	N/A
Other (specify)				
Installation of Fans	Y	1963	Y	1988
Vessel emission controls	Y	1963	Y	1989
Mechanical loading or packaging equipment	N/A	N/A	N/A	N/A
Other (specify)				

[__] Mark (X) this box if you attach a continuation sheet.

9.13 Describe all equipment or process modifications you have made within the 3 years prior to the reporting year that have resulted in a reduction of worker exposure to the listed substance. For each equipment or process modification described, state the percentage reduction in exposure that resulted. Photocopy this question and complete it separately for each process type and work area.

CBI

[ ] Process type ..... Polyurethane Joint Sealant

Work area ..... 1 and 2

Equipment or Process Modification	Reduction in Worker Exposure Per Year (%)
Installation of two more exhaust fans.	50%
Added Portable Oscillating Fans.	50%

[ ] Mark (X) this box if you attach a continuation sheet.

PART D PERSONAL PROTECTIVE AND SAFETY EQUIPMENT

9.14 Describe the personal protective and safety equipment that your workers wear or use in each work area in order to reduce or eliminate their exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

[__] Process type ..... Polyurethane Joint Sealant

Work area ..... 1 and 2

Equipment Types	Wear or Use (Y/N)
Respirators	N
Safety goggles/glasses	Y
Face shields	N
Coveralls	Y
Bib aprons	N
Chemical-resistant gloves	Y
Other (specify)	

[__] Mark (X) this box if you attach a continuation sheet.

9.15 If workers use respirators when working with the listed substance, specify for each process type, the work areas where the respirators are used, the type of respirators used, the average usage, whether or not the respirators were fit tested, and the type and frequency of the fit tests. Photocopy this question and complete it separately for each process type.

CBI

[ ] Process type ..... Polyurethane Joints Sealant

Work Area	Respirator Type	Average Usage[1]	Fit Tested (Y/N)	Type of Fit Test[2]	Frequency of Fit Tests (per year)
	NONE USED				

[1]Use the following codes to designate average usage:

A = Daily
B = Weekly
C = Monthly
D = Once a year
E = Other (specify) _____

[2]Use the following codes to designate the type of fit test:

QL = Qualitative
QT = Quantitative

[ ] Mark (X) this box if you attach a continuation sheet.

9.16 Respirator Maintenance Program -- For each type of respirator used when working with the listed substance, specify the frequency of the maintenance activity, and the person who performs the maintenance activity. Photocopy this question and complete it separately for each respirator type.

Respirator type ..... _____

Respirator Maintenance Activity	Frequency[1]	Person Performing Activity[2]
Cleaning	N/A	N/A
Inspection		
Replacement		
Cartridge/Canister		
Respirator unit		

[1]Use the following codes to designate the frequency of maintenance activity:

A = After each use
B = Weekly
C = Other (specify) _____

[2]Use the following codes to designate who performs the maintenance activity:

A = Plant industrial hygienist
B = Supervisor
C = Foreman
D = Other (specify) _____

[ ] Mark (X) this box if you attach a continuation sheet.

9.17 Respirator Training Program -- Describe your respirator training and re-training programs for each type of respirator used when working with the listed substance. Photocopy this question and complete it separately for each respirator type.

a.

Respirator type ..... NONE USED FOR THE YEAR REPORTED

Type of Training[1]	Number of Workers Trained	Location of Training[2]	Length of Training (hrs)	Person Performing Training[3]	Frequency[4]

b.

Respirator type ..... NONE USED FOR THE YEAR REPORTED.

Type of Re-training[1]	Number of Workers Re-trained	Location of Re-Training[2]	Length of Re-Training (hrs)	Person Performing Re-Training[3]	Frequency[4]

---

[1]Use the following codes to designate the type of training or re-training:

E = Emergency
R = Routine

[2]Use the following codes to designate the location of training or re-training:

A = Outside plant instruction
B = In-house classroom instruction
C = On-the-job
D = Other (specify) _____

[3]Use the following codes to designate the person who performs the training or re-training:

A = Plant industrial hygienist
B = Supervisor
C = Foreman
D = Other (specify) _____

[4]Use the following codes to designate the frequency of respirator training or re-training:

A = Monthly
B = Fixed monthly
C = Other (specify) _____

[ ] Mark (X) this box if you attach a continuation sheet.

9.18 For each type of personal protective clothing and safety equipment used when working with the listed substance, indicate whether you have conducted a permeation test on the clothing or equipment for the listed substance.

Clothing and Equipment	Permeation Tests Conducted (Y/N)
Coveralls	N
Bib apron	N/A
Gloves	Y
Other (specify)	

[ ] Mark (X) this box if you attach a continuation sheet.

PART E WORK PRACTICES

9.19 Describe all of the work practices and administrative controls used to reduce or eliminate worker exposure to the listed substance (e.g., restrict entrance only to authorized workers, mark areas with warning signs, insure worker detection and monitoring practices, provide worker training programs, etc.). Photocopy this question and complete it separately for each process type and work area.

CBI

[ ]

Process type ..... Polyurethane Joints for Sewer Pipe

Work area ..... 1 and 2

1. Yearly medical testing: a. Respiratory Test

2. Only authorized trained personnel handles TDI.

3. Warning signs with procedures are attached to the tank.

4. All employees working at the pouring station or pit wear TDI Badges.

5. Extra exhaust fans and oscillating fans were installed.

9.20 Indicate (X) how often you perform each housekeeping task used to clean up routine leaks or spills of the listed substance. Photocopy this question and complete it separately for each process type and work area.

Process type .....

Work area .....

Housekeeping Tasks	Less Than Once Per Day	1-2 Times Per Day	3-4 Times Per Day	More Than 4 Times Per Day
Sweeping		X		
Vacuuming	N/A			
Water flushing of floors	N/A			
Other (specify)				

[ ] Mark (X) this box if you attach a continuation sheet.

9.21 Do you have a written medical action plan for responding to routine or emergency exposure to the listed substance?

Routine exposure

Yes ..... RESPONSE NOT REQUIRED 1

No 2

Emergency exposure

Yes 1

No 2

If yes, where are copies of the plan maintained?

Routine exposure: _____

Emergency exposure: _____

9.22 Do you have a written leak and spill cleanup plan that addresses the listed substance? Circle the appropriate response.

Yes ..... (1)

No 2

If yes, where are copies of the plan maintained? On file at site

Has this plan been coordinated with state or local government response organizations? Circle the appropriate response.

Yes ..... (1)

No 2

9.23 Who is responsible for monitoring worker safety at your facility? Circle the appropriate response.

Plant safety specialist ..... (1)

Insurance carrier 2

OSHA consultant 3

Other (specify) _____ 4

[ ] Mark (X) this box if you attach a continuation sheet.

9.24 Who is responsible for safety and health training at your facility? Circle the appropriate response.

Plant safety specialist 1

Insurance carrier 2

OSHA consultant 3

Other (specify) _____ 4

9.25 Who is responsible for the medical program at your facility? Circle the appropriate response.

Plant physician 1

Consulting physician 2

Plant nurse 3

Consulting nurse 4

Other (specify) _____ 5

[ ] Mark (X) this box if you attach a continuation sheet.

SECTION 10 ENVIRONMENTAL RELEASE

General Instructions:

Complete Part E (questions 10.23-10.35) for each non-routine release involving the listed substance that occurred during the reporting year. Report on all releases that are equal to or greater than the listed substance's reportable quantity value, RQ, unless the release is federally permitted as defined in 42 U.S.C. 9601, or is specifically excluded under the definition of release as defined in 40 CFR 302.3(22). Reportable quantities are codified in 40 CFR Part 302. If the listed substance is not a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and, thus, does not have an RQ, then report releases that exceed 2,270 kg. If such a substance however, is designated as a CERCLA hazardous substance, then report those releases that are equal to or greater than the RQ. The facility may have answered these questions or similar questions under the Agency's Accidental Release Information Program and may already have this information readily available. Assign a number to each release and use this number throughout this part to identify the release. Releases over more than a 24-hour period are not single releases, i.e., the release of a chemical substance equal to or greater than an RQ must be reported as a separate release for each 24-hour period the release exceeds the RQ.

For questions 10.25-10.35, answer the questions for each release identified in question 10.23. Photocopy these questions and complete them separately for each release.

PART A GENERAL INFORMATION

10.01 Where is your facility located? Circle all appropriate responses.

CBI

[__] Industrial area 1

Urban area 2

Residential area 3

Agricultural area 4

Rural area 5

Adjacent to a park or a recreational area 6

Within 1 mile of a navigable waterway 7

Within 1 mile of a school, university, hospital, or nursing home facility 8

Within 1 mile of a non-navigable waterway 9

Other (specify) _____ 10

[__] Mark (X) this box if you attach a continuation sheet.

10.02 Specify the exact location of your facility (from central point where process unit is located) in terms of latitude and longitude or Universal Transverse Mercader (UTM) coordinates.

Latitude ..... 38 ° 32 ' 24 "

Longitude ..... 121 ° 10 ' 12 "

UTM coordinates ..... Zone Township 12 , Northing Range 6 , Easting M.D.B. & M.

10.03 If you monitor meteorological conditions in the vicinity of your facility, provide the following information.

Average annual precipitation ..... _____ inches/year

Predominant wind direction ..... _____

RESPONSE NOT REQUIRED FOR TDI

10.04 Indicate the depth to groundwater below your facility.

Depth to groundwater ..... _____ meters

RESPONSE NOT REQUIRED FOR TDI

10.05 For each on-site activity listed, indicate (Y/N/NA) all routine releases of the listed substance to the environment. (Refer to the instructions for a definition of Y, N, and NA.)

CBI

[ ]

On-Site Activity	Environmental Release Air	Water	Land
Manufacturing	N/A	N/A	N/A
Importing	N/A	N/A	N/A
Processing	Y	N	N
Otherwise used	N/A	N/A	N/A
Product or residual storage	Y	N	N
Disposal	N/A	N/A	N/A
Transport	N/A	N/A	N/A

[ ] Mark (X) this box if you attach a continuation sheet.

10.06 Provide the following information for the listed substance and specify the level of precision for each item. (Refer to the instructions for further explanation and an example.)

CBI

[ ]

Quantity discharged to the air	U K	kg/yr ±	%
Quantity discharged in wastewaters	N/A	kg/yr ±	%
Quantity managed as other waste in on-site treatment, storage, or disposal units	N/A	kg/yr ±	%
Quantity managed as other waste in off-site treatment, storage, or disposal units	N/A	kg/yr ±	%

[ ] Mark (X) this box if you attach a continuation sheet.

10.08 Describe the control technologies used to minimize release of the listed substance for each process stream containing the listed substance as identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each process type.

CBI

[ ] Process type ..... Polyurethane Joint Sealant

Stream ID Code	Control Technology	Percent Efficiency
N/A	N/A	N/A

[ ] Mark (X) this box if you attach a continuation sheet.

PART B RELEASE TO AIR

10.09 Point Source Emissions -- Identify each emission point source containing the listed substance in terms of a Stream ID Code as identified in your process block or residual treatment block flow diagram(s), and provide a description of each point source. Do not include raw material and product storage vents, or fugitive emission sources (e.g., equipment leaks). Photocopy this question and complete it separately for each process type.

CBI

[ ]

Process type ..... Polyurethane Joints Sealant

Point Source ID Code	Description of Emission Point Source
7.J	Pressure Relief Vent
7.N	Flushing Vents
7.O	Fan Vent

[ ] Mark (X) this box if you attach a continuation sheet.

[ ] Mark (X) this box if you attach a continuation sheet.

10.10 Emission Characteristics - - Characterize the emissions for each Point Source ID Code identified in question 10.09 by completing the following table.

CBI

[ ]

Point Source ID Code	Physical State[1]	Average Emissions (kg/day)	Frequency[2] (days/yr)	Duration[3] (min/day)	Average Emission Factor[4]	Maximum Emission Rate (kg/min)	Maximum Emission Rate Frequency (events/yr)	Maximum Emission Rate Duration (min/event)
7.J	V	U K	U K	U K	U K	U K	U K	U K
7.N	G	"	"	"	"	"	"	"
7.O	G	"	"	"	"	"	"	"

[1]Use the following codes to designate physical state at the point of release:
G = Gas; V = Vapor; P = Particulate; A = Aerosol; O = Other (specify) _____

[2]Frequency of emission at any level of emission

[3]Duration of emission at any level of emission

[4]Average Emission Factor — Provide estimated (± 25 percent) emission factor (kg of emission per kg of production of listed substance)

10.11 Stack Parameters -- Identify the stack parameters for each Point Source ID Code identified in question 10.09 by completing the following table.

CBI

[ ]

Point Source ID Code	Stack Height(m)	Stack Inner Diameter (at outlet) (m)	Exhaust Temperature (°C)	Emission Exit Velocity (m/sec)	Building Height(m)[1]	Building Width(m)[2]	Vent Type[3]
7.J	7.3m	.02m	27°C	U K	6.5m	22.8m	V
7.N	7.3m	.21m	27°C	U K	6.5m	22.8m	V
7.O	7.3m	.28m	27°C	U K	6.5m	22.8m	V
7.O	5.1m	.28m	27°C	U K	6.5m	22.8m	H

[1]Height of attached or adjacent building

[2]Width of attached or adjacent building

[3]Use the following codes to designate vent type:

H = Horizontal
V = Vertical

[ ] Mark (X) this box if you attach a continuation sheet.

10.13 Equipment Leaks -- Complete the following table by providing the number of equipment types listed which are exposed to the listed substance and which are in service according to the specified weight percent of the listed substance passing through the component. Do this for each process type identified in your process block or residual treatment block flow diagram(s). Do not include equipment types that are not exposed to the listed substance. If this is a batch or intermittently operated process, give an overall percentage of time per year that the process type is exposed to the listed substance. Photocopy this question and complete it separately for each process type.

CBI

[__] Process type ..... Polyurethane Sewer Pipe Joints

Percentage of time per year that the listed substance is exposed to this process type ..... 100 %

Equipment Type	Number of Components in Service by Weight Percent of Listed Substance in Process Stream					
	Less than 5%	5-10%	11-25%	26-75%	76-99%	Greater than 99%
Pump seals[1]						
Packed	3	N/A	N/A	N/A	2	N/A
Mechanical	N/A	N/A	N/A	N/A	N/A	N/A
Double mechanical[2]	N/A	N/A	N/A	N/A	N/A	N/A
Compressor seals[1]	N/A	N/A	N/A	N/A	N/A	N/A
Flanges	N/A	N/A	N/A	N/A	N/A	N/A
Valves						
Gas[3]	N/A	N/A	N/A	N/A	N/A	N/A
Liquid	N/A	N/A	N/A	N/A	N/A	4
Pressure relief devices[4] (Gas or vapor only)	1	N/A	N/A	N/A	N/A	N/A
Sample connections						
Gas	N/A	N/A	N/A	N/A	N/A	N/A
Liquid	1	N/A	N/A	N/A	N/A	N/A
Open-ended lines[5] (e.g., purge, vent)						
Gas	N/A	N/A	N/A	N/A	N/A	N/A
Liquid	N/A	N/A	N/A	N/A	N/A	N/A

[1] List the number of pump and compressor seals, rather than the number of pumps or compressors

10.13 continued on next page

[__] Mark (X) this box if you attach a continuation sheet.

10.13 (continued)

[2]If double mechanical seals are operated with the barrier (B) fluid at a pressure greater than the pump stuffing box pressure and/or equipped with a sensor (S) that will detect failure of the seal system, the barrier fluid system, or both, indicate with a "B" and/or an "S", respectively

[3]Conditions existing in the valve during normal operation

[4]Report all pressure relief devices in service, including those equipped with control devices

[5]Lines closed during normal operation that would be used during maintenance operations

---

10.14 Pressure Relief Devices with Controls -- Complete the following table for those pressure relief devices identified in 10.13 to indicate which pressure relief devices in service are controlled. If a pressure relief device is not controlled, enter "None" under column c.

CBI

[ ]

a. Number of Pressure Relief Devices	b. Percent Chemical in Vessel[1]	c. Control Device	d. Estimated Control Efficiency[2]
1	<5%	None	U K

[1]Refer to the table in question 10.13 and record the percent range given under the heading entitled "Number of Components in Service by Weight Percent of Listed Substance" (e.g., <5%, 5-10%, 11-25%, etc.)

[2]The EPA assigns a control efficiency of 100 percent for equipment leaks controlled with rupture discs under normal operating conditions. The EPA assigns a control efficiency of 98 percent for emissions routed to a flare under normal operating conditions

---

[ ] Mark (X) this box if you attach a continuation sheet.

10.15 Equipment Leak Detection -- If a formal leak detection and repair program is in place, complete the following table regarding those leak detection and repair procedures. Photocopy this question and complete it separately for each process type.

CBI

[__] Process type ..... Polyurethane Joint for Sewer Pipe

Equipment Type	Leak Detection Concentration (ppm or mg/m^3) Measured at ___ Inches from Source	Detection Device[1]	Frequency of Leak Detection (per year)	Repairs Initiated (days after detection)	Repairs Completed (days after initiated)
Pump seals					
Packed	U K	O	U K	Same Day	Same Day
Mechanical	N/A	N/A	N/A	N/A	N/A
Double mechanical	N/A	N/A	N/A	N/A	N/A
Compressor seals	N/A	N/A	N/A	N/A	N/A
Flanges	N/A	N/A	N/A	N/A	N/A
Valves					
Gas	N/A	N/A	N/A	N/A	N/A
Liquid	N/A	N/A	N/A	N/A	N/A
Pressure relief devices (gas or vapor only)	U K	O	U K	Same Day	Same Day
Sample connections					
Gas	N/A	N/A	N/A	N/A	N/A
Liquid	N/A	N/A	N/A	N/A	N/A
Open-ended lines					
Gas	N/A	N/A	N/A	N/A	N/A
Liquid	N/A	N/A	N/A	N/A	N/A

[1]Use the following codes to designate detection device:

POVA = Portable organic vapor analyzer
FPM = Fixed point monitoring
O = Other (specify) Immediately change to a new one.

[__] Mark (X) this box if you attach a continuation sheet.

10.16 Raw Material, Intermediate and Product Storage Emissions - - Complete the following table by providing the information on each liquid raw material, intermediate, and product storage vessel containing the listed substance as identified in your process block or residual treatment block flow diagram(s).

CBI

[ ]

Vessel Type[1]	Floating Roof Seals[2]	Composition of Stored Materials[3]	Throughput (liters per year)	Vessel Filling Rate (gpm)	Vessel Filling Duration (min)	Vessel Inner Diameter (m)	Vessel Height (m)	Operating Vessel Volume (l)	Vessel Emission Controls[4]	Design Flow Rate[5]	Vent Diameter (cm)	Control Efficiency (%)	Basis for Estimate[6]
H	UK	100%	UK	23	30	1.06	1.23	1699	Press. Rel.	UK	1.76	UK	C
H	UK	100%	UK	23	90	1.22	3.96	4163.5	Press. Rel.	UK	1.76	UK	C

[1]Use the following codes to designate vessel type:

F = Fixed roof
CIF = Contact internal floating roof
NCIF = Noncontact internal floating roof
EFR = External floating roof
P = Pressure vessel (indicate pressure rating)
H = Horizontal
U = Underground

[2]Use the following codes to designate floating roof seals:

MS1 = Mechanical shoe, primary
MS2 = Shoe-mounted secondary
MS2R = Rim-mounted, secondary
LM1 = Liquid-mounted resilient filled seal, primary
LM2 = Rim-mounted shield
LMW = Weather shield
VM1 = Vapor mounted resilient filled seal, primary
VM2 = Rim-mounted secondary
VMW = Weather shield

[3]Indicate weight percent of the listed substance. Include the total volatile organic content in parenthesis

[4]Other than floating roofs

[5]Gas/vapor flow rate the emission control device was designed to handle (specify flow rate units)

[6]Use the following codes to designate basis for estimate of control efficiency:

C = Calculations
S = Sampling

[ ] Mark (X) this box if you attach a continuation sheet.