EPA

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Comprehensive Assessment Information Rule

REPORTING FORM

90-930000007

EPA-OTS
000787021P

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

CAIR REPORTING FORM CHECKLIST

THIS CHECKLIST IS NOT REQUIRED TO BE SUBMITTED, IT IS FOR RESPONDENT'S INTERNAL USE ONLY

This form is intended to gather information on a specific listed substance that is manufactured, imported, or processed at one facility. Respondents must answer only those sections or specific questions required in the CAIR rule.

Respondents may use the same form each time they must report. The original copy of the form received by respondents should be kept on file and used to make copies of the questions required to be answered. These copies may then be circulated to those employees who will complete the form. Respondents must submit only one copy of each question rather than compiling parts of each question from various employees and submitting them together as one question.

Respondents need only supply information on the form that is "known to or reasonably ascertainable by" the respondent. Refer to the glossary for this definition. All reports with incomplete responses will be assessed as invalid and a Notice of Noncompliance Error Letter and a copy of the question will be sent to you for completion.

Before completing any portion of this form, please read the instruction booklet. The booklet contains general instructions on how to comply with the rule, supplemental instructions and sample answers for many questions, and a glossary containing definitions of key terms. Refer to the glossary whenever an unknown term appears to examine the definition provided.

If you cannot determine your reporting obligations, you should call the TSCA Assistance Office, U.S. EPA, at (202) 554-1404. To obtain additional forms, write to the TSCA Assistance Office (TS-779), ATTN: CAIR Form Request, Office of Toxic Substances, Environmental Protection Agency, Room E-543, 401 M St., SW, Washington, DC 20460, or call at (202) 554-1404.

BEFORE RETURNING YOUR COMPLETED CAIR FORM PLEASE CHECK THE FOLLOWING:

_____1. **Have you completed and included Section 1 for each form you are submitting?**

_____2. **Have you submitted a standard chemical name and Chemical Abstract Service Registry Number for each chemical you are reporting on?**

_____3. **Does your submitted form include the original certification signatures as required for questions 1.06, 1.07, and 1.08?**

_____4. Have you submitted a completed separate form for each substance you are required to report on?

_____5. Have you submitted a completed separate form for each site at which you manufacture, import, or process a listed substance?

_____6. For each listed substance you must report on, have you reported on all activities you engage in at each site using the listed substance on the same reporting form?

_____7. If you are claiming information as Confidential Business Information (CBI), have you completed the CBI substantiation form in Appendix II of the form for each category containing CBI? Failure to submit a completed CBI substantiation form with a reporting form containing CBI will result in the waiver of your claim of confidentiality.

_____8. For each question that you are required to answer, have you responded by either providing the data, stating not applicable ("N/A"), or, if the question permits, stating unknown ("UK")?

_____9. Have you right justified your responses to questions asked that require respondents to give a numeric response in a series of boxes (e.g., the answer "372" is entered as [0][0][3][7][2])?

_____10. Have your responses been given in alpha, numeric or alpha-numeric form such as 3 million or 3,000,000? Responses must not be given in scientific notation such as 3×10^6.

_____11. If you needed additional space to report the required data, have you checked the continuation sheet box at the bottom of each page that requires additional space; attached additional copies of the specific questions of this form that contain additional information; and listed the attachments in Appendix I of the reporting form?

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..... [0]6] [1]4] [8]9]
mo. day year

CBI

[ ] a. If a Chemical Abstracts Service Number (CAS No.) is provided in the Federal Register, list the CAS No. ..... [0]0]0]5]8]4]-[8]4]-[9]

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 ..... NA

(ii) Name of mixture as listed in the rule .... [illegible]

(iii) Trade name as listed in the rule ..... ~~Conastic AD-20 Part A~~ Stepanfoam BH610T

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 ..... NA

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

Name of chemical substance .....

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) .... NA

[ ] 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 ..... NA

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

Yes .....

No .....

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."

NAME	SIGNATURE	DATE SIGNED

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."

NA

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."

NA

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

AEROSPACE

CBI Name [G]e[n]e[r]a[l] [E]l[e]c[t]r[i]c [C]o.

[ ] Address [F]r[e]n[c]h [R]o[a]d [3]2[5]

Street

[U]t[i]c[a] [N]Y.

City

[N.Y.] State [1]3[5]0[3] Zip

Dun & Bradstreet Number .....[0]0-[1]3[6]-[7]9[6]0

EPA ID Number .....[0]0[0]5[2]1[9]7[1]

Employer ID Number .....[ ][N][K][ ][ ][ ][ ]

Primary Standard Industrial Classification (SIC) Code .....[3]6[6]2

Other SIC Code .....[N/A][ ][ ]

Other SIC Code .....[N/A][ ][ ]

1.10 Company Headquarters Identification

Dan

~~AEROSPACE~~

CBI Name [G]e[n]e[r]a[l] [E]l[e]c[t]r[i]c [C]o.

[ ] Address [3]1[3]5 [E]a[s]t [O]n[t] [P]k[e]

Street

[F]a[i]r[f]i[e]l[d]

City

[CT] State [0]6[8]3[1] Zip

Dun & Bradstreet Number .....[0]0-[1]3[6]-[7]9[6]0

Employer ID Number .....[N][K][ ][ ][ ][ ][ ]

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

1.11 Parent Company Identification

CBI Name [G]E]N]E]R]A]L]_]G]L]E]C]T]R]I]C]_]C]O]_]_]_]_]_]_]_]

[_] Address [3]1]3]5]_]E]A]S]T]O]N]_]T]P]K]E]_]_]_]_]_]_]_]_]
Street

[F]A]I]R]F]I]E]L]D]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
City

NA

[C]T] [0]6]4]3]1]--[_]_]_]_
State Zip

Dun & Bradstreet Number .....[0]0]-[1]3]6]-[4]9]6]0

1.12 Technical Contact

CBI Name [R]O]B]E]R]T]_]A]_]M]A]C]I]E]L]_]_]_]_]_]_]_]_]_]_]_]

[_] Title [S]E]N]I]O]R]_]E]N]U]I]R]O]N]M]E]N]T]A]L]_]E]N]G]R]_

Address ~~[8]3]1]_]B]R]O]A]D]_]S]T]~~ [_]_]_]_]_]_]_]_]_]_]_]_]
P O BOX 4840
Street

~~[U]T]I]C]A]~~ [_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]_]
SYRACUSE
City

[N]Y] [1]3]2]5]1]--[9]8]4]0
State Zip

Telephone Number .....[3]1]5]-[7]9]3]-~~[5]6]7]8~~
7460

1.13 This reporting year is from ..... [0]1] [8]8] to [0]1] [8]9]
Mo. Year Mo. Year
12 88

[_] 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 [ ]

[ ] Mailing Address [ ]
Street

NA

[ ]
City

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

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

Date of Sale .....[ ][ ] [ ][ ] [ ]
Mo. Day Yea

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 [ ]

[ ] Mailing Address [ ]
Street

NA

[ ]
City

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

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

Date of Purchase .....[ ][ ] [ ][ ] [ ]
Mo. Day Ye

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 tha was manufactured, imported, or processed at your facility during the reporting year.

CBI

[ ]

Classification	Quantity (kg/yr
Manufactured	NA
~~Imported~~	NA
Processed (include quantity repackaged)	~~1.95~~ 18.37
Of that quantity manufactured or imported, report that quantity:	
In storage at the beginning of the reporting year	NA
For on-site use or processing	NA
For direct commercial distribution (including export)	NA
In storage at the end of the reporting year	NA
Of that quantity processed, report that quantity:	
In storage at the beginning of the reporting year	("U.K.")
Processed as a reactant (chemical producer)	0
Processed as a formulation component (mixture producer)	0
Processed as an article component (article producer)	~~1.95~~ 18.37
Repackaged (including export)	0
In storage at the end of the reporting year	("U.K.")

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

PART C IDENTIFICATION OF MIXTURES

1.17 Mixture -- If the listed substance on which you are required to report is a mixture or a component of a mixture, provide the following information for each component chemical. (If the mixture composition is variable, report an average percentage of each component chemical for all formulations.)

CBI

[ ]

	Component Name	Supplier Name	Average % Composition by Weight (specify precision, e.g., 45% ± 0.5%)
#1	2,4-Toluene Diisocyanate	Stepan Co	94 %
	("U.K.")	Stepan Co	6 %
		Total	100%

100 %

Data from MSDS.

Plus or Minus UK

[X] 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 liste 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	NA	
Processed	50	8
Process Type #2 (The process type involving the 2nd largest quantity of the listed substance.)		
Manufactured	NA	
Processed	NA	
Process Type #3 (The process type involving the 3rd largest quantity of the listed substance.)		
Manufactured	NA	
Processed	NA	

~~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

[ ]

omit 2.10

Maximum daily inventory ..... ~~0~~ ("U.K.") k

Average monthly inventory ..... ("U.K.") k

[ ] **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 ..... [1 2] [8 7] Mo. Year

Quantity manufactured ..... NA kg

Quantity imported ..... NA kg

Quantity processed ..... 1.95 kg

Year ending ..... [1 2] [8 6] Mo. Year

Quantity manufactured ..... NA kg

Quantity imported ..... NA kg

Quantity processed ..... ("U.K.") kg

Year ending ..... [1 2] [8 5] Mo. Year

Quantity manufactured ..... N.A. kg

Quantity imported ..... NA kg

Quantity processed ..... ("U.K.") kg

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

CBI

N.A.

[ ]

Continuous process 1

Semicontinuous process 2

Batch process 3

[ ] **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 .....

Semicontinuous process .....

Batch process .....

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/y

Processing capacity ..... _____ kg/y

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	NA	NA	NA
Amount of decrease	NA	NA	0.136 kg

[ ] **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

[ ]

NA

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

[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 th 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]
K	100%	~~[illegible]~~ 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 additive
M = Plasticizer
N = Dye/Pigment/Colorant/Ink and additive
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) US Federal Defense

[ ] 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 substanc 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]
~~J~~ K	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 additive
M = Plasticizer
N = Dye/Pigment/Colorant/Ink and additive
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) US Federal Defense

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

2.14 CBI [ ] Final Product -- Complete the following table for each type of final product 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]
NA			

[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 additive
M = Plasticizer
N = Dye/Pigment/Colorant/Ink and additive
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 CBI Circle all applicable modes of transportation used to deliver bulk shipments of the listed substance to off-site customers.

[ ] Truck .....

Railcar ..... NA

Barge, Vessel ..... NA

Pipeline .....

Plane .....

Other (specify) _____ .....

2.16 CBI 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).

[ ] NA

omit

Category of End Use

i. Industrial Products

Chemical or mixture ..... _____ kg/y

Article ..... _____ kg/y

ii. Commercial Products

Chemical or mixture ..... _____ kg/y

Article ..... _____ kg/y

iii. Consumer Products

Chemical or mixture ..... _____ kg/y

Article ..... _____ kg/y

iv. Other

Distribution (excluding export) ..... _____ kg/

Export ..... _____ kg/

Quantity of substance consumed as reactant ..... _____ kg/

Unknown customer uses ..... _____ kg/

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

2.17 State the quantity of the listed substance that you exported during the reporting year.
CBI

[ ]

In bulk ..... _____ kg

As a mixture ..... _____ kg

In articles ..... _____ kg

NA

[ ] **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. The average price is the market value of the product that was traded for the listed substance.

CBI

[ ]

Source of Supply	Quantity (kg)	Average Pric (S/kg)
The listed substance was manufactured on-site.		
The listed substance was transferred from a different company site.		
The listed substance was purchased directly from a manufacturer or importer.		
The listed substance was purchased from a distributor or repackager.	18.37 ~~1.95~~	~~$ 285.90~~ ~~294.99~~ ~~511.81~~ 285.90
The listed substance was purchased from a mixture producer.		

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

CBI

[ ]

Truck 1

Railcar .....

Barge, Vessel .....

Pipeline .....

Plane .....

Other (specify) _____ .....

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

p21

stepanfoam STEPAN - MANUFACTURER

$\$162.80/gal \cdot 4\,gal \cdot \frac{4.53\,kg}{10\,gal} = \$294.99\ \cancel{/gal}\ /kg$

CONAP - MANUFACTURER

(Conastic - $31.35/kit)

$\$\frac{31.35}{kit} \cdot \frac{1\,kit}{2\,parts} \cdot \frac{1\,part}{1\,pt} \cdot \frac{8\,pts}{gal} \cdot \frac{10\,gal}{4.53\,kg} =$

~~$105~~

276.82 / kg

$\$294.99 + \$276.82 = \$\cancel{285.90}$

~~581~~. $571.81

AVERAGE $= \frac{\$571.81}{2} = 285.90$

21A

4.06 For each physical state of the listed substance, specify the corresponding flashpoint, and the test method used to derive the flashpoint value.

Solid

Flashpoint ..... See MSDS ..... _____ °

Test method ..... _____

Liquid

Flashpoint ..... _____ °

Test method ..... _____

Gas/Vapor

Flashpoint ..... _____ °

Test method ..... _____

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes .....

No .....

4.07 Indicate the temperature at which the listed substance undergoes autopolymerization or autodecomposition.

Autopolymerizes at ..... _____ °

Autodecomposes at ..... _____ °

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes .....

No .....

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

STEPANFOAM BH-610-T

GENERAL ELECTRIC CO
831 BOARD STREET
UTICA NY 13503

04405 00

MATERIAL SAFETY DATA SHEET

DATE: 11/04/88 CUST # 26750-710 P.O.# F12P4419011524 PAGE: 1
PRODUCT NUMBER: 188478 PRODUCT NAME: STEPANFOAM BH-610-T

STEPAN COMPANY
NORTHFIELD, IL. 60093
(312) 446-7500

EMERGENCY INFORMATION
MEDICAL: 1-800-228-5635
CHEMTREC: 1-800-424-9300

SECTION I: GENERAL INFORMATION

PRODUCT NUMBER: 188478 PRODUCT NAME: STEPANFOAM BH-610-T
PRODUCT CLASS: TOLUENE DIISOCYANATE.
PRECAUTIONS: POISON.
REFER TO BILL OF LADING OR CONTAINER LABEL FOR DOT OR OTHER TRANSPORTATION HAZARD CLASSIFICATION, IF ANY.

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT (CAS #)	OSHA PEL (PPM)	ACGIH TLV (PPM)	OTHER
TOLUENE-2,4-DIISOCYANATE (TDI) (C) (584-84-9) 94%	0.02	0.005	

NE = NOT ESTABLISHED.
NL = NOT LISTED.
(C) = IDENTIFIED AS A CARCINOGEN BY OSHA, IARC, OR NTP.

SECTION III: PHYSICAL/CHEMICAL DATA

(CONTINUED)

STEPANFOAM BH-610-1

BOILING POINT:
OVER 200 DEG F. (93 DEG C.).
% VOLATILE BY WEIGHT:
NIL
EVAPORATION RATE: ESTIMATED SLOWER THAN ETHYL ETHER.

VAPOR DENSITY: ESTIMATED HEAVIER THAN AIR.
WEIGHT PER GALLON:
10.0 LBS.

SECTION IV: FIRE AND EXPLOSION DATA

FLASH POINT (SETA FLASH CLOSED CUP):
OVER 200 DEG F. (93 DEG C.).
EXPLOSIVE LIMITS:
LOWER:
1%
EXTINGUISHING MEDIA: DRY CHEMICAL, CARBON DIOXIDE, FOAM, OR WATER FOG. CLASS BC, ABC FIRE EXTINGUISHER.
SPECIAL FIRE FIGHTING PROCEDURES: SELF-CONTAINED POSITIVE PRESSURE BREATHING APPARATUS AND PROTECTIVE CLOTHING SHOULD BE WORN IN FIGHTING FIRES INVOLVING CHEMICALS.
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE KNOWN.

SECTION V: REACTIVITY DATA

STABILITY: STABLE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
INCOMPATABILITY (MATERIALS TO AVOID):
STRONG OXIDIZING AGENTS
WATER, ALCOHOLS, AMINES, ALKALIES, METAL COMPOUNDS (CATALYSTS).
HAZARDOUS DECOMPOSITION PRODUCTS:
CYANIDES AND AMMONIA MAY BE FORMED.

SECTION VI: HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE/EMERGENCY AND FIRST AID PROCEDURES

EYES: CONTACT WITH EYES IS PAINFUL AND IRRITATING.
FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

(CONTINUED)

SKIN: PROLONGED OR REPEATED CONTACT WITH SKIN CAUSES IRRITATION. WASH OFF SKIN WITH WATER. REMOVE CONTAMINATED CLOTHING AND CLEAN BEFORE REUSE.

INHALATION: MIST CAUSED BY MANUFACTURING OPERATIONS IRRITATES NASAL PASSAGES.
IF VAPORS OR MIST CAUSE IRRITATION OR DISTRESS, REMOVE TO FRESH AIR.
GIVE OXYGEN OR APPLY ARTIFICIAL RESPIRATION, IF NEEDED.

INGESTION: IF SWALLOWED, CONSULT A PHYSICIAN IMMEDIATELY.

CHRONIC EFFECTS AND MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
CHRONIC EFFECTS AND MEDICAL CONDITIONS AGGRAVATED BY OVER-EXPOSURE TO THIS PRODUCT HAVE NOT BEEN ESTABLISHED.
UNNECESSARY EXPOSURE TO THIS PRODUCT OR ANY CHEMICAL SHOULD BE AVOIDED.

IF ANY SYMPTOMS PERSIST, CONSULT A PHYSICIAN.
IN A NATIONAL TOXICOLOGY PROGRAM (NTP) STUDY, TDI WAS CARCINOGENIC WHEN GIVEN ORALLY TO RATS AND MICE AT MAXIMUM TOLERATED DOSES. TDI WAS NOT CARCINOGENIC TO RATS IN A TWO-YEAR INHALATION STUDY.
SEE SECTION II FOR HAZARDOUS INGREDIENTS PRESENT IN THIS PRODUCT AND THEIR CORRESPONDING THRESHOLD LIMIT VALUES.

****
FOR ADDITIONAL MEDICAL INFORMATION, CALL 1-800-228-5635
****

SECTION VII: SPILL, LEAK, AND DISPOSAL PROCEDURES

CONTAIN ALL SPILLS AND LEAKS TO PREVENT DISCHARGE INTO THE ENVIRONMENT.
VENTILATE AREA.

SMALL SPILLS: SOAK UP WITH ABSORBANT, SHOVEL INTO WASTE CONTAINER, FLUSH AREA WITH WATER.

LARGE SPILLS: RECOVER LIQUID FOR REPROCESSING OR DISPOSAL.

WASTE DISPOSAL: RECOVER MATERIAL OR DISPOSE (INCINERATION IS PREFERRED) IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. MATERIAL COLLECTED WITH ABSORBANT MAY BE DISPOSED IN A PERMITTED LANDFILL IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. EMPTY CONTAINER MAY RETAIN VAPOR OR PRODUCT RESIDUE. OBSERVE ALL LABELED SAFEGUARDS UNTIL CONTAINER IS CLEANED, RECONDITIONED, OR DESTROYED.

(CONTINUED)

SECTION VIII: PROTECTIVE MEASURES

EYE PROTECTION: WEAR FULL FACE SHIELD OR GOGGLES WHEN HANDLING.
PROTECTIVE GLOVES: USE IMPERVIOUS GLOVES.
RESPIRATORY PROTECTION:
IF VAPORS ARE PRESENT, USE NIOSH OR MSHA APPROVED RESPIRATOR FOR ORGANIC VAPORS, AIR-LINE RESPIRATOR, OR A SELF-CONTAINED BREATHING APPARATUS.
VENTILATION:
USE VENTILATION ADEQUATE TO KEEP HAZARDOUS INGREDIENTS BELOW THEIR TLV (SEE SECTION II).
OTHER PROTECTIVE EQUIPMENT:
WEAR PROTECTIVE CLOTHING TO PREVENT REPEATED OR PROLONGED CONTACT.
EYE WASH STATION AND SAFETY SHOWER SHOULD BE NEAR WORK AREA.

SECTION IX: SPECIAL PRECAUTIONS

HANDLING AND STORAGE:
AVOID OVERHEATING OR FREEZING.
AVOID OPEN FIRE OR FLAME.
OTHER PRECAUTIONS:
SPILLED MATERIAL IS SLIPPERY. WASH THOROUGHLY AFTER HANDLING. IF INGESTED, CALL A PHYSICIAN.

DO NOT POUR INTO DRAINS, AS SOLIDS THAT FORM WILL PLUG SEWERS.
1% AMMONIA MAY BE USED TO NEUTRALIZE SPILLS.

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(R) REGISTERED TRADEMARK OR APPLICATION PENDING.

C O N A P I N C .
1405 Buffalo St.
Olean, New York 14760
716/372-9650

========== MATERIAL SAFETY DATA SHEET ==========

Note: This form is to be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Blank spaces are not permitted.

========== I. IDENTIFICATION ==========

Trade Name Conastic AD-20 Part A Date:5/25/89

Chemical Name, common name: Complex Mixture; Polyurethane Prepolymer

========== II. HAZARDOUS INGREDIENTS ==========

Chemical Names	CAS No.	%	ACGIH(TLV)	OSHA(PEL)	Other
Toluene 2,4 Diisocyanate	584-84-9	<15%	.005ppmTWA .005ppm TWA	.02ppmSTEL	ND

Material may present a dust hazard if cut, ground or machined after curing.

========== III. PHYSICAL DATA ==========

Boiling Point ND !Specific Gravity (H2O=1) 1.06
Vapor Pressure,mm Hg ND !Vapor Density (air=1) ND
Melting Pt./Range ND !Evaporation rate (Ether=1) ND
Solubility in Water: REACTS!Physical State: LIQUID
Percent volatile by volume:Negligible
Appearance and Odor: Liquid; For TDI Sharp pungent (odor threshold greater than TLV)

========== IV. FIRE AND EXPLOSION DATA ==========

Flash Point,F (Method): > 260 F PMCC
Flammable Limits ND LEL ND UEL ND
Extinguishing Materials:
-XX-Water Spray -XX-Dry Chemical -XX-Carbon Dioxide
-XX-Foam -ND-Other:
Special Firefighting Procedures/Unusual Fire or Explosion Hazards:
Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by fire fighters. No skin surface should be exposed. During a fire TDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. At temperatures greater than 350 F TDI forms carbodiimides with the release of CO2 which can cause pressure build-up in closed containers. Explosive rupture is possible. Therefore, use cold water to cool fire-exposed containers.

========== V. HEALTH HAZARD INFORMATION ==========

ACUTE TOXICITY (Routes of entry)
Inhalation:
LC50.(4 hr.): Range 16-50ppm for 1-4 hr (Rat) on TDI. TDI

Inhalation:
Inhalation of TDI vapors at concentrations above allowable limits can produce irritation of the mucous membranes in the respiratory tract resulting in running nose, sore throat, productive cough and a reduction in lung function (breathing obstruction). As a result of previous repeated overexposures or a single large dose, certain individuals may develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. Another type of response is hyperreactivity or hypersensitivity, in which persons, (as a result of a previous repeated overexposure or large single dose),can respond to small TDI concentrations at levels well below the .02ppm. Symptoms could be immediate or delayed and include chest tightness, wheezing, cough, shortness of breath or asthmatic attack. Hypersensitivity pneumonitis (with similar respiratory symptoms and fever which has been delayed) has also been reported. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Chronic overexposure to isocyanate has also been reported to cause lung damage (including decrease in lung function) which may be permanent. Sensitization can either be temporary or permanent.
Eyes:
Liquid, vapors or aerosols are severely irritating to the eyes and can cause tears. Prolonged vapor contact may cause conjunctivitis. Corneal injury can occur which can be slow to heal; however damage is usually reversible.
Skin:
TDI reacts with skin protein and tissue moisture and can cause localized irritation as well as discoloration. Prolonged contact could produce reddening, swelling, or blistering and, in some individuals, skin sensitization resulting in dermatitis. Once sensitized a individual can develop recurring symptoms as a result of exposure to vapor.
Ingestion:
Ingestion could result in irritation and some corrosive action in the mouth, stomach tissue and digestive tract. Symptoms can include sore throat, abdominal pain, nausea, vomiting and diarrhea.

Medical Conditions Aggravated By Exposure
Asthma, other respiratory disorders (bronchitis, emphysema, bronchial hyperreactivity), skin allergies, eczema.

Cover the spill with sawdust, vermiculite, Fuller's earth or other absorbent material. Pour decontamination solution over the spill area and allow to react for at least 10 minutes. Collect the material in open top containers and add additional amounts of decontamination solution. Remove containers to a safe place, cover loosely, and allow to stand for 24 to 48 hours. Wash down spill area with decontamination solutions. Decontamination solutions: non-ionic surfactant Union Carbide's Tergitol TMN-10(20%) and water (80%); or concentrated ammonia (3-8%), detergent (2%), and water (90%). During spill clean-up, a self contained breathing apparatus or air line respirator and protective clothing must be worn. (See section VIII).
Reportable Quantity CERCLA: 100lbs
Waste Disposal Method:
Dispose according to any Local, State and Federal Regulations.

========== VIII. SPECIAL HANDLING INFORMATION ==========

Respiratory Protection:
A positive pressure air-supplied respirator is required whenever TDI concentrations exceed the Short-Term Exposure or Ceiling Limit of .02ppm or exceed the 8 hour Time Weighted Average TLV of 0.005 ppm. An air supplied respirator must also be worn during spray application, even if exhaust ventilation is used. For non-spray , short-term(less than 1 hour) situations where concentrations are near the TLV, a full face, air-purifying respirator equipped with organic cartridges or canisters can be used. However, TDI has poor warning properties since the odor at which TDI can be smelled is substantially higher than the 0.02 ppm. Therefore, proper fit and timely replacement of filter elements must be ensured. Observe OSHA regulations for respirator use. (29CFR 1910.134).
Ventilation:
Local exhaust should be used to maintain levels below the TLV whenever TDI containing material is handled, processed, or spray-applied. At normal room temperatures (70 F) TDI levels quickly exceed the TLV unless properly ventilated. Standard reference sources regarding industrial ventilation (e.g.,ACGIH INDUSTRIAL VENTILATION) should be consulted for guidance about adequate ventilation.
Protective Gloves:Chemical resistant gloves (butyl rubber, nitrile rubber, polyvinyl alcohol). However, please note that PVA degrades in water.
Eye Protection:
Liquid chemical goggles or full face shield should be worn. Contact lenses should not be worn.
Other Protective Clothing or Equipment:Safety showers and eyewash stations should be available. Cover as much of exposed skin as possible with appropriate clothing.

Work Practices, hygienic practices
Educate and train employees in safe use of product. Follow all label instructions.

========== IX SPECIAL PRECAUTIONS ==========

Handling and Storage:
Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspect.

Other Precautions:
Avoid contact with eyes and skin. Do not breathe the vapors.

========== X ADDITIONAL INFORMATION ==========

SARA Title III Requirements:
TDI is on the Extremely Hazardous Substance.

Chemical Name	Section: 302	CERCLA	313
Toluene 2,4 Diisocyanate	TPQ-500 LBS	RQ-100 LBS	YES

T.S.C.A. Status: On Inventory

Name(print): George C. Karpin
Signature: George C. Karpin
Title: Toxicological Coordinator
Date of last revision 5/25/89

This formulation is subject to change without notice. In case of accident use the phone number provided.

To the best of our knowledge, the information contained herein is accurate and meets all state and federal guidelines. However, CONAP INC. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of the suitability of any material is the sole responsibility of the user.

Date approved 5/25/89 Approved:

ND=Not Determined
NA=Not Applicable

5/25/89 Approved:

34 H

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) .... (UK) (1/M cm) at _____ nm

Reaction quantum yield, ϕ ..... (UK) at _____ nm

Direct photolysis rate constant, k_p, at ... (UK) 1/hr _____ latitud

b. Oxidation constants at 25°C:

For $^1O_2$ (singlet oxygen), k_{ox} ..... (UK) 1/M

For RO_2 (peroxy radical), k_{ox} ..... (UK) 1/M

c. Five-day biochemical oxygen demand, BOD_5 .. (UK) mg/l

d. Biotransformation rate constant:

For bacterial transformation in water, k_b... UK 1/hr

Specify culture ..... UK

e. Hydrolysis rate constants:

For base-promoted process, k_B ..... UK 1/M

For acid-promoted process, k_A ..... UK 1/M

For neutral process, k_N ..... UK 1/hr

f. Chemical reduction rate (specify conditions) UK

g. Other (such as spontaneous degradation) ... UK

Note: All Environmental Fate data is UK according to manufacturers Stepan & Conap.

[ ] 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	(UK)
Atmosphere	
Surface water	
Soil	

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
(UK)			in	
			in	
			in	
			in	

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

Method of calculation or determination ..... (UK)

5.04 Specify the soil-water partition coefficient, K_d ..... (UK) at 25°C

Soil type ..... (UK)

5.05 Specify the organic carbon-water partition coefficient, K_{oc} ..... (UK) at 25°C

5.06 Specify the Henry's Law Constant, H ..... (UK) atm-m^3/mole

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

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

Bioconcentration Factor	Species	Test[1]
(UK)		

[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.

SECTION 6 ECONOMIC AND FINANCIAL INFORMATION

6.01 Company Type -- Circle the number which most appropriately describes your company.

CBI

[ ] Corporation 1

Sole proprietorship 2

Partnership 3

Other (specify) _____ 4

6.02 At the end of the reporting year, were you constructing additional facilities at this site that were not yet in operation at the end of the reporting year, but which are now being used or will be used in the future for manufacturing, importing, or processing the listed substance? Circle the appropriate response.

CBI

[ ] Yes 1

No 2

6.03 List all of the product types that you manufacture that contain the listed substance as a raw material, and the percentage of the name-plate capacity dedicated to the listed substance that each product type represents. The total of all capacity percentiles should equal 100 percent. State the total name-plate capacity of the process type(s) used to manufacture all product types that contain the listed substance.

CBI

[ ]

NA Product Type	% Total Capacity

State the total name-plate capacity of the process type(s) used to manufacture all product types that contain the listed substance: _____ kg/yr

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

6.04 For each market listed below, state the quantity sold and the total sales value of the listed substance sold or transferred in bulk during the reporting year.

CBI

[ ]

NA

Market	Quantity Sold or Transferred (kg/yr)	Total Sales Value ($/yr)
Retail sales		
Distribution -- Wholesalers		
Distribution -- Retailers		
Intra-company transfer		
Repackagers		
Mixture producers		
Article producers		
Other chemical manufacturers or processors		
Exporters		
Other (specify)		

6.05 Substitutes -- List all known commercially feasible substitutes that you know exist for the listed substance and state the cost of each substitute. A commercially feasible substitute is one which is economically and technologically feasible to us in your current operation, and which results in a final product with comparable performance in its end uses.

CBI

[ ]

NA

Substitute	Cost ($/kg)
None	

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

6.06 CBI [ ] State your average total and variable costs of manufacturing, importing, and processing the listed substance during the reporting year. (For an explanation of these costs, refer to the instructions.)

Average Total Costs

Manufacturing ..... _____ $/k

Importing ..... _____ $/k

Processing ..... (UK) $/k

Average Variable Costs

Manufacturing ..... _____ $/k

Importing ..... _____ $/k

Processing ..... (UK) $/k

6.07 CBI [ ] State your average purchase price of the listed substance, if purchased as a raw material during the reporting year.

Average purchase price ..... $285.90 $/k

6.08 CBI [ ] State your company's total sales and sales of the listed substance sold in bulk for the reporting year.

Year ending ..... [ ][ ] Mo. [ ][ ] Year

Company's total sales ($) ..... _____

Sales of listed substance ($) ..... NA

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

6.09 CBI [ ]

State your company's total sales and sales of the listed substance sold in bulk for the corporate fiscal year preceding the reporting year. (Refer to the instructions for question 6.08 for the methodology used to answer this question.)

NA

Year ending ..... [ ][ ] Mo. [ ][ ] Year

Company's total sales ($) ..... _____

Sales of listed substance ($) ..... NA

6.10 CBI [ ]

State your company's total sales and sales of the listed substance sold in bulk for the 2 corporate fiscal years preceding the reporting year in descending order. (Refer to the instructions for question 6.08 for the methodology used to answer this question.)

NA

Year ending ..... [ ][ ] Mo. [ ][ ] Year

Company's total sales ($) ..... _____

Sales of listed substance ($) ..... _____

Year ending ..... [ ][ ] Mo. [ ][ ] Year

Company's total sales ($) ..... _____

Sales of listed substance ($) ..... _____

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

SECTION 7 MANUFACTURING AND PROCESSING INFORMATION

General Instructions:

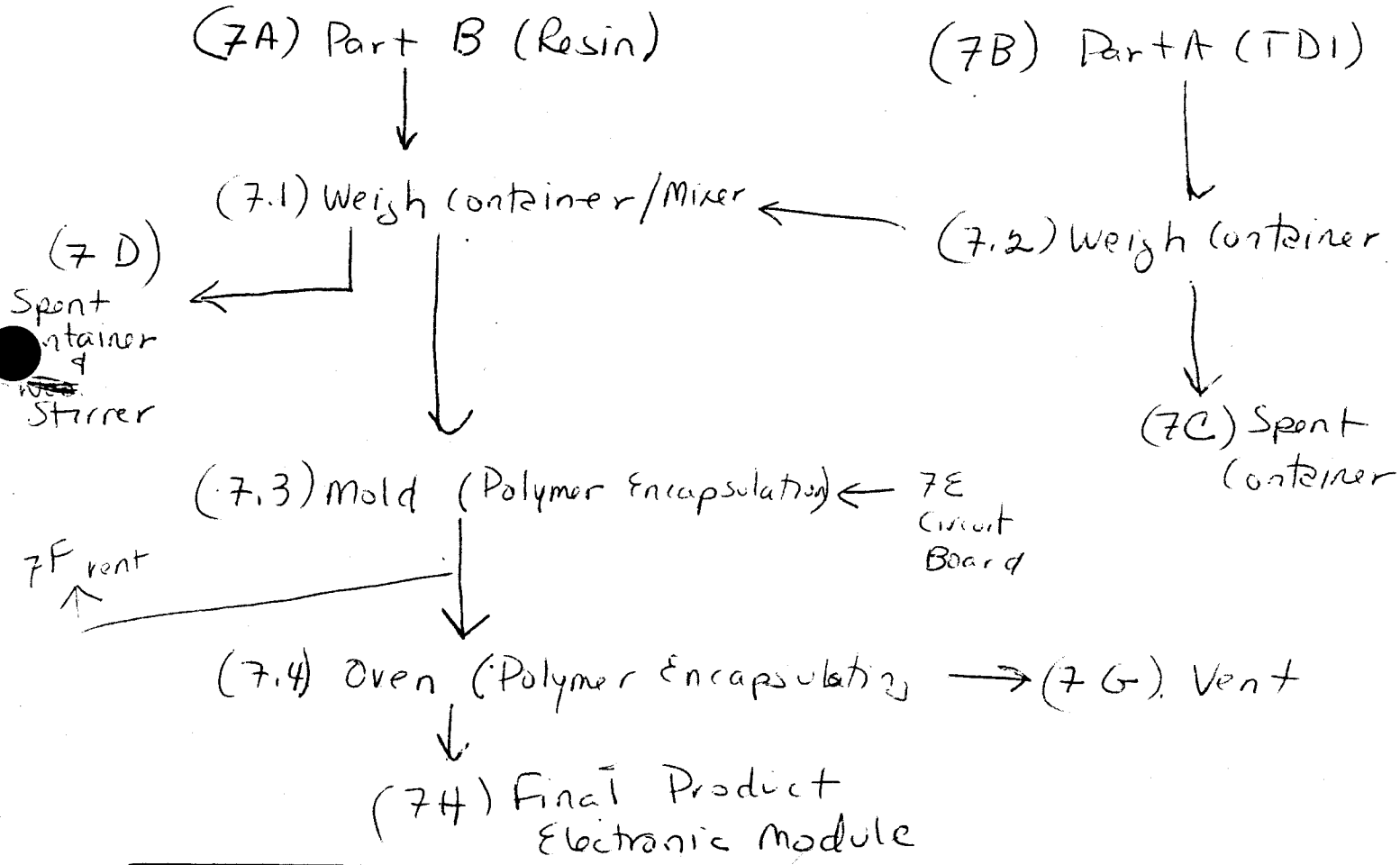
For questions 7.04-7.06, provide a separate response for each process block flow diagram provided in questions 7.01, 7.02, and 7.03. Identify the process type from which the information is extracted.

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 ..... Encapsulation



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

7.03 In accordance with the instructions, provide a process block flow diagram showing a. 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 ..... ~~Encapsulating~~

~~(7B, 7.2) → (7C) Spent Container (TD)~~

N/A

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

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 ..... Encapsulating

Unit Operation ID Number	Typical Equipment Type	Operating Temperature Range (°C)	Operating Pressure Range (mm Hg)	Vessel Compositic
7.1	Cup	Ambient	Atmospheric	Paper
7.2	"	"	"	"
7.3(a)	Mold	"	"	aluminum
(b)	Mold	"	"	rubber
7.4	Oven	60°C	"	Steel

[ ] 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 ..... Encapsulating

Process Stream ID Code	Process Stream Description	Physical State[1]	Stream Flow (kg/yr)
7A	Raw Mat'l - Resin	OL	(UK)
7B ~~7A~~	Raw Mat'l - AO-20 BH-610-T	OL	18.37
7C	~~Residual in Cup - BH-610-T~~ Spent Container	SO ~~OL~~	(UK)
7D	Spent Container + Stirrer	SO	(UK)
7E	Circuit Board	SO	NA
7F	Vent - Worker Area	GU	(UK)
7G	Oven Vent	GU	(UK)
7H	Electronic Module	SO	NA

[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, photocop this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

CBI

[ ] Process type ..... Encapsulating

a. Process Stream ID Code	b. Known Compounds[1]	c. Concentrations[2,3] (% or ppm)	d. Other Expected Compounds	e. Estimated Concentrations (% or ppm)
7A	(Resin) (UK)	E UK		
7B	Reactent 2,4-TDI	E 94% (E)	CO_2	UK
7C	Residual 2,4-TDI	E 94% (E)		
7D	Residual encapsulation product	E NA		
7E	NA - Circuit Board	E		
7E	* CO_2	E UK		
	* Cyanides			
	Ammonia			
7G	CO_2	E UK		
	** Stoddard Solvent	E 10% (E)		
7H	Final Product	E		

7.06 continued below

* Decomposition byproducts

** Stoddard Solvent Part of Process

*** FT. note 3 - NA

[ ] 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		
2		
3		
4		
5		

NA

[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.

SECTION 8 RESIDUAL TREATMENT GENERATION, CHARACTERIZATION, TRANSPORTATION, AND MANAGEMENT

General Instructions:

For questions 8.04-8.06, provide a separate response for each residual treatment block flo diagram provided in question 8.01, 8.02 or 8.03. Identify the process type from which the information is extracted.

For questions 8.05-8.33, the Stream Identification Codes are those process streams listed in either the Section 7 or Section 8 block flow diagrams which contain residuals for each applicable waste management method.

For questions 8.07-8.33, if residuals are combined before they are handled, list those Stream Identification Codes on the same line.

Questions 8.09-8.33 refer to the waste management activities involving the residuals identified in either the Section 7 or Section 8 block flow diagrams. Not all Stream Identification Codes used in the sample answers (e.g., for the incinerator questions) have corresponding process streams identified in the block flow diagram(s). These Stream Identification codes are for illustrative purposes only.

For questions 8.11-8.33, if you have provided the information requested on one of the EPA Office of Solid Waste surveys listed below within the three years prior to your reporting year, you may submit a copy or reasonable facsimile in lieu of answering those questions which the survey addresses. The applicable surveys are: (1) Hazardous Waste Treatment, Storage, Disposal, and Recycling Survey; (2) Hazardous Waste Generator Survey; or (3) Subtitle D Industrial Facility Mail Survey.

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

PART A RESIDUAL TREATMENT PROCESS DESCRIPTION

8.01 In accordance with the instructions, provide a residual treatment block flow diagram which describes the treatment process used for residuals identified in question 7.01

CBI

[ ] Process type ..... Encapsulating

(7C) Spent container → Lab Pak
(Residual BH-610-T)
↓
Transport to TSDF

(7D) Spent container → Lab Pak
(~~Residual~~ Reaction product)
↓
Transport to TSDF

[X] 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 ..... Encapsulating

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)
7C	H, R, E, T	OL	2,4-TDI	E 94%	(UK)	(UK)
7D	H R E T	SO	Polyurethane	E UK	UK	UK
			2,4-TDI	E UK	UK	UK

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.)

NA

Additive Package Number	Components of Additive Package	Concentrations (% or ppm)
1		
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.

NA

Code	Method	Detection Lim. (± ug/l)
1		
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 .....

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. Management of Residual (%) Off-Site	f. Costs for Off-Site Management (per kg)	g. Changes in Management Methods
7C	B67/B69		UK		100%	UK	UK
		1D or 11I					
		Note: Residuals are lab packed with other hazardous materials, picked up by a certified haz waste hauler & transported to a TSD facility.					
7D	B82		UK	100%	—	UK	UK
		1D or 11I					

[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.

EXHIBIT 8-1.
(Refers to question 8.06(b))

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 "Facility Notes")
A13 Other untreated waste (specify in "Facility Notes")

*"Exactly as described" means that the waste matches the description of the RCRA 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 "Facility Notes")

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 "Facility Notes")

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 "Facility Notes")

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 "Facility Notes")

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 "Facility Notes")

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
B90 Other nonhalogenated organic solid

ORGANIC GASES—Waste that is primarily organic with low-to-moderate inorganic content and is a gas at atmospheric pressure.

B91 Organic gases

EXHIBIT 8-2.
(Refers to question 8.06(c))

MANAGEMENT METHODS

M1 = Discharge to publicly owned wastewater treatment works
M2 = Discharge to surface water under NPDES
M3 = Discharge to off-site, privately owned wastewater treatment works
M4 = Scrubber: a) caustic; b) water; c) other
M5 = Vent to: a) atmosphere; b) flare; c) other (specify)_____
M6 = Other (specify)_____

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 Infrared
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

Recovery of metals
1MR Activated carbon (for metals recovery)
2MR Electrodialysis (for metals recovery)
3MR Electrolytic metal recovery
4MR Ion exchange (for metals recovery)
5MR Reverse osmosis (for metals recovery)
6MR Solvent extraction (for metals recovery)
7MR Ultrafiltration (for metals recovery)
8MR Other metals recovery

Wastewater Treatment
After each wastewater treatment type listed below (1WT - 66WT) specify a) tank; or b) surface impoundment (i.e., 63WTa)

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[1]
10WT Lime
11WT Sodium hydroxide
12WT Soda ash
13WT Sulfide
14WT Other chemical precipitation

Chromium reduction
15WT Sodium bisulfite
16WT Sulfur dioxide

8.22 Describe the combustion chamber design parameters for each of the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

[ ]

NA

omit

Incinerator	Combustion Chamber Temperature (°C) Primary	Combustion Chamber Temperature (°C) Secondary	Location of Temperature Monitor Primary	Location of Temperature Monitor Secondary	Residence Time In Combustion Chamber (seconds) Primary	Residence Time In Combustion Chamber (seconds) Secondary
1						
2						
3						

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

8.23 Complete the following table for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

[ ]

NA

Incinerator	Air Pollution Control Device[1]	Types of Emissions Data Available
1		
2		
3		

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

---

[1] Use the following codes to designate the air pollution control device:

S = Scrubber (include type of scrubber in parenthesis)
E = Electrostatic precipitator
O = Other (specify) _____

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

EXHIBIT 8-2. (continued)

MANAGEMENT METHODS

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 WASTE TREATMENT

1TR Other treatment
2TR Other recovery for reuse

ACCUMULATION

1A Containers
2A Tanks

STORAGE

1ST Container (i.e., barrel, drum)
2ST Tank
3ST Waste pile
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

---

[1] Chemical precipitation is a treatment operation whereby the pH of a waste is adjusted to the range necessary for removal (precipitation) of contaminants. However, if the pH is adjusted solely to achieve a neutral pH, THE OPERATION SHOULD BE CONSIDERED NEUTRALIZATION (60WT).

SECTION 9 WORKER EXPOSURE

General Instructions:

Questions 9.03-9.25 apply only to those processes and workers involved in manufacturing or processing the listed substance. Do not include workers involved in residual waste treatment unless they are involved in this treatment process on a regular basis (i.e., exclude maintenance workers, construction workers, etc.).

[ ] **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	1952	~~30 years after employee leaves the company~~
Age at hire	X	X	1952 *	
Work history of individual before employment at your facility	X	X	UK	*
Sex	X	X	1952	*
Race	X	X	1952	*
Job titles	X	X	1952	*
Start date for each job title	X	X	1952	*
End date for each job title	X	X	1952	*
Work area industrial hygiene monitoring data	X	X	1982	UNK
Personal employee monitoring data	X	X	1982	UNK
Employee medical history	X	X	1952	UNK
Employee smoking history	X	X	"UK"	UNK
Accident history	X	X	"UK"	UNK
Retirement date	X	X	1952	UNK
Termination date	X	X	1952	UNK
Vital status of retirees	X	X	NA	UNK
Cause of death data	X	X	"NA"	UNK

[ ] 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	NA		
	Controlled Release	NA		
	Open	NA		
On-site use as reactant	Enclosed	NA		
	Controlled Release	NA		
	Open	NA		
On-site use as nonreactant	Enclosed	NA		
	Controlled Release	NA		
	Open	NA		
On-site preparation of products	Enclosed	NA		
	Controlled Release	NA		
	Open	NA		

[ ] 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

[ ]

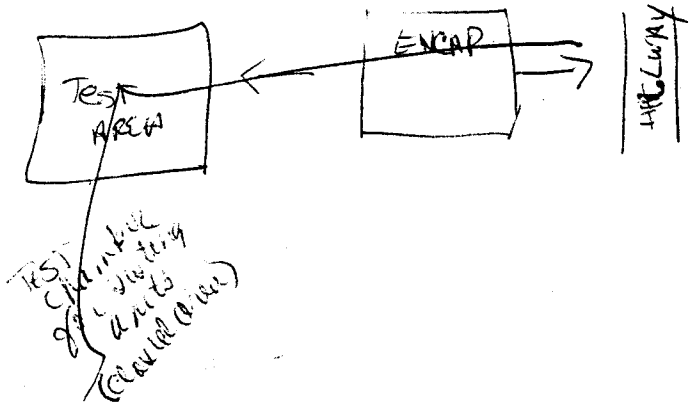
Labor Category	Descriptive Job Title
A	STAKER
B	STENCILER
C	BONDERS
D	SUPERVISOR
E	ELECTRICIAN
F	~~[illegible]~~
G	PLUMBERS
H	
I	
J	

[ ] **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 ..... NA



[ ] 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 ..... _____

Work Area ID	Description of Work Areas and Worker Activities
1	
2	
3	
4	
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 ..... Encapsulating

Work area ....

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
A	1	NOT "UK"/Skin	OL	"UK"E	50 ~~"UK"~~
B	1	NOT "UK"/Skin	OL	"UK"E	50 ~~"UK"~~
C	4	NOT "UK"/Skin	OL	"UK"E	50 ~~"UK"~~
D	1	NOT UK"/Skin	OL	"UKE	50 ~~"UK~~
E	1+	NOT UK"/Skin	OL	"UKE	50 ~~"UK"~~
F	1+	NOT UK"/Skin	OL	"UKE	50 ~~"UK"~~

[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 ..... ENCAPSULATION

Work area 1

Labor Category	8-hour TWA Exposure Level (ppm, mg/m^3, other-specify)	15-Minute Peak Exposure Level (ppm, mg/m^3, other-specify)
A	"UK"	"UK"
B	"UK"	"UK"
C	"UK"	"UK"
D	"UK"	"UK"
E	"UK"	"UK"
F	"UK"	"UK"

[ ] 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

[ ]

NA

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						
General work area (air)						
Wipe samples						
Adhesive patches						
Blood samples						
Urine samples						
Respiratory samples						
Allergy tests						
Other (specify) _____						
Other (specify) _____						
Other (specify) _____						

[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) _____

[ ] 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

NA

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

NA

[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) _____

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.)
NA	

[ ] 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 ..... Encapsulation

Work area 1

Engineering Controls	Used (Y/N)	Year Installed	Upgraded (Y/N)	Year Upgraded
Ventilation:				
Local exhaust	Y	1959	Y	1981
General dilution	N		N	
Other (specify)				
Vessel emission controls	N		N	
Mechanical loading or packaging equipment	N		N	
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 ..... _____

Work area ..... _____

Equipment or Process Modification	Reduction in Worker Exposure Per Year (%)

NA

[ ] 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 ..... Encapsulating

Work area 1

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

[ ] 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 ..... _____

Work Area	Respirator Type	Average Usage[1]	Fit Tested (Y/N)	Type of Fit Test[2]	Frequency of Fit Tests (per year)
	NA				

[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.

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 ..... Encapsulating

Work area 1

1. Employee training -
2. Local Exhaust - ventilated work area

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 ..... Encapsulating

Work area 1

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				
Water flushing of floors				
Other (specify)				
Minor wipe-ups	X			

GENERALLY DONE - NOT INTENDED SOLELY for listed SUBSTANCE

[ ] 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?

Omit

Routine exposure

Yes .....

No .....

Emergency exposure

Yes .....

No .....

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 .....M.S.D.S.....

No .....Medical.....

If yes, where are copies of the plan maintained? Plant Protection Health & Safety office work area

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

Yes .....

No .....

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

Plant safety specialist .....

Insurance carrier .....

OSHA consultant .....

Other (specify) _____ .....

[ ] 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 releas 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 ar equal to or greater than the RQ. The facility may have answered these questions or simila 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 ar 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 .....

Urban area .....

Residential area .....

Agricultural area .....

Rural area .....

Adjacent to a park or a recreational area .....

Within 1 mile of a navigable waterway .....

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

Within 1 mile of a non-navigable waterway .....

Other (specify) _____ .....

[ ] 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 ..... 043 ° 05 ' 13 "

Longitude ..... 075 ° 17 ' 11 "

UTM coordinates ..... Zone UK, Northing UK, Easting UK

omit

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

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

Predominant wind direction ..... _____

10.04 Indicate the depth to groundwater below your facility.

Depth to groundwater ..... 4 meters

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	NA		
Importing	NA		
Processing	Y	N	N
Otherwise used	NA		
Product or residual storage	N	N	N
Disposal	NA		
Transport	NA		

[ ] 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 .....

Stream ID Code	Control Technology	Percent Efficiency
7F	None	
7G	None	

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

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 emissio sources (e.g., equipment leaks). Photocopy this question and complete it separatel for each process type.

CBI
[ ]

Process type ..... Encapsulating

Point Source ID Code	Description of Emission Point Source
7F	Work Bench Ventlation System
7G	OVEN VENTILLATION

[X] 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)
7E	V	UK	UK ~~50~~	UK	UK	UK	UK	UK
7G	V	UK	UK	UK	UK	UK	UK	UK

[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)

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

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]
7F	6.4	0.457	Ambient	3.3	NA	NA	V
7G	6.4	0.457	Ambient	3.3	NA	NA	V

[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.**

10.12 If the listed substance is emitted in particulate form, indicate the particle size distribution for each Point Source ID Code identified in question 10.09. Photocopy this question and complete it separately for each emission point source.

CBI

[ ]

Point source ID code ..... NA

Size Range (microns)	Mass Fraction (% ± % precision)
< 1	
≥ 1 to < 10	
≥ 10 to < 30	
≥ 30 to < 50	
≥ 50 to < 100	
≥ 100 to < 500	
≥ 500	

Total = 100%

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

10.13 Equipment Leaks -- Complete the following table by providing the number of equipmen 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 separatel for each process type.

CBI

[__] Process type ..... _____

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

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						
Mechanical						
Double mechanical[2]						
Compressor seals[1]						
Flanges						
Valves						
Gas[3]						
Liquid						
Pressure relief devices[4] (Gas or vapor only)						
Sample connections						
Gas						
Liquid						
Open-ended lines[5] (e.g., purge, vent)						
Gas						
Liquid						

NA

[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, indicat 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]
NA			

[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 ..... _____

Equipment Type	Leak Detection Concentration (ppm or mg/m³) Measured at ____ Inches from Source	Detection Device[1]	Frequency of Leak Detection (per year)	Repairs Initiated (days after detection)	Repairs Completed (days afte initiated)
Pump seals					
Packed					
Mechanical					
Double mechanical					
Compressor seals					
Flanges					
Valves					
Gas					
Liquid					
Pressure relief devices (gas or vapor only)					
Sample connections					
Gas					
Liquid					
Open-ended lines					
Gas					
Liquid					

N/A

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

POVA = Portable organic vapor analyzer
FPM = Fixed point monitoring
O = Other (specify) _____

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

NA

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]

NA

[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.

PART E NON-ROUTINE RELEASES

10.23 Indicate the date and time when the release occurred and when the release ceased or was stopped. If there were more than six releases, attach a continuation sheet and list all releases.

Release	Date Started	Time (am/pm)	Date Stopped	Time (am/pm)
1				
2				
3				
4				
5				
6				

NA

10.24 Specify the weather conditions at the time of each release.

Release	Wind Speed (km/hr)	Wind Direction	Humidity (%)	Temperature (°C)	Precipitation (Y/N)
1					
2					
3					
4					
5					
6					

Omit

NA

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

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 ..... Encapsulation

Point Source ID Code	Description of Emission Point Source
~~7F~~	
7G	Oven ventillation

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

APPENDIX I: List of Continuation Sheets

Attach continuation sheets for sections of this form and optional information after this page. In column 1, clearly identify the continuation sheet by listing the question numbe to which it relates. In column 2, enter the inclusive page numbers of the continuation sheet for each question number.

Question Number (1)	Continuation Sheet Page Numbers (2)
1.16	9 + ~~9A~~
1.17	10 + ~~10A~~
3.01	21 + 21A
4.06 – 4.15	28 – 34H
7.03	44 + 44A
8.01	50 + 42
10.09	113 + ~~113A~~
Appendix	133 + 133A

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

APPENDIX II: Substantiation Form and Instructions to Accompany Claims of Confidentiality Under the Comprehensive Assessment Information Rule (CAIR)

If you assert one or more claims of confidentiality for information submitted on a Comprehensive Assessment Information Rule (CAIR) form, please answer, pursuant to 40 CFR 740.219, all the following questions in the space provided. Type all responses. If you need more space to answer a particular question, please use additional sheets. If you use additional sheets, be sure to include the section, number, and (if applicable) subpart of the question being answered, and write your facility's name and Dun & Bradstreet Number in the lower right-hand corner of each sheet. A completed copy of this form must accompany all submissions containing one or more claims of confidentiality. Failure to do so will result in the waiver of your claim of confidentiality.

EPA has identified six information categories as those which encompass all claims of confidentiality. These are: Submitter identity (h); Substance identity (i); Volume manufactured, imported, or processed (j); Use information (k); Process information (l); and Other information (m). Respondents who assert a CBI claim on the reporting form must mark the letter(s) (h through m) that represent(s) the appropriate category(ies) of confidentiality in the box adjacent to the question, and answer the questions in this form.

Respondents who assert a CBI claim for information submitted under CAIR must also provide EPA with sanitized and unsanitized versions of their submissions. The unsanitized version must be complete and contain all information being claimed as confidential. The sanitized copy must contain only information not claimed as confidential. EPA will place the second copy of the submission in the public file. Failure to submit the second copy of the form at the time the respondent submits the reporting form containing confidential information or after receipt of a notice from EPA thereafter will result in a waiver of the respondent's claim of confidentiality.

Please indicate the CAS Registry Number (if known) or chemical name (if the CAS Registry Number is not known) for the substance that is the subject of this form:

584-84-9

If you are reporting on a tradename, please provide the tradename for the substance that the subject of this form:

Stepanfoam BH-610-T

Does this form contain CBI? [ ] Yes [X] No

If the answer to this question is yes, you must bracket the text claimed as CBI. Any unbracketed information may be placed in the public file.

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

A. All Claims. Respondents who assert any CBI claims must answer the following questions in addition to the appropriate questions from sections B through G, below:

(1) For what period do you assert a claim of confidentiality? If a claim is to extend until a certain event or point in time, please indicate that event or time period. If the period indicated is longer than 2 calendar years, explain why. If different periods of protection are required for different categories of information, please so indicate.

NA

(2) Has the information that you are claiming as confidential been or will it be disclosed to individuals outside your company?

[ ] Yes [ ] No

If so, what, if any, restrictions apply to the use or further disclosure of the information?

NA

(3) Briefly describe the physical and procedural restrictions, if any, within your company on the use and storage of the information you are claiming as confidential. What other steps have you taken to prevent the undesired disclosure of the information by others?

NA

(4) Does the information you are claiming as confidential appear or is it referred to in advertising, promotional, or safety materials for the substance or an end-product containing the substance?

[ ] Yes [ ] No

Does it appear or is it referred to in professional or trade publications?

[ ] Yes [ ] No

If so, indicate why the information should nonetheless be considered confidential.

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

(5) If the information you wish to claim as confidential were to be disclosed to the public by EPA, how much difficulty would a new competitor have in entering the market for this substance, considering such constraints as capital and marketing costs, specialized marketing expertise, or unusual production processes?

NA

(6) Has EPA, another Federal agency, or a Federal Court made any pertinent confidentiality determinations for information regarding this substance?

[ ] Yes [ ] No

If so, please identify the entity and provide EPA with copies of such determinations.

B. Submitter Identity (code h). Respondents who assert CBI claims for submitter identity must also answer the following questions:

(1) Approximately how many competitors do you have in the market for this substance or the final product containing this substance?

(2) What harm, if any, would result from EPA's disclosure of the submitter identity? Provide detailed descriptions of both the probable harm from disclosure and the causal relationship between disclosure and harm.

(3) If you have also asserted a claim of confidentiality for substance identity, what harm to your company's competitive position would result from disclosure of your company's identity if the substance identity were to remain confidential?

NA

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

C. Substance Identity (code i). Specific substance identity can be claimed as confidential only if that substance identity is confidential for purposes of the TSCA Chemical Substance Inventory. Respondents who assert CBI claims for substance identity must also answer the following questions:

(1) (a) Has the substance been patented or disclosed in a patent in the U.S. or elsewhere?

[ ] Yes [ ] No

If so, indicate the relevant patent(s) and the reasons why the substance identity should nonetheless be considered confidential.

Patent Number: _____

(b) Exactly what information which does not appear in the patent would be disclosed to competitors by releasing the specific substance identity? Explain in detail how competitors could use this information.

(c) Since the patent provides protection for the substance, why are you asserting confidentiality?

(2) (a) In what form (i.e., product, effluent, emission, etc.) does this substance leave your site?

(b) What measures have you taken to guard against the discovery of the substance identity by others?

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

(c) If the substance is formulated with other chemicals, list them, and state the concentration of the claimed substance in the mixture.

(3) (a) If the substance leaves the site in a product that is available to the public or your competitors, can the substance be identified by analysis of the product?

[ ] Yes [ ] No

(b) Is it likely that a competitor has attempted or will attempt to chemically analyze the substance?

[ ] Yes [ ] No

(c) Would the cost and difficulty of such analysis be great or small? Why?

(4) What harm, if any, would result from EPA's public disclosure of the specific chemica identity? Provide detailed descriptions of both the probable harm to your company from disclosure and the causal relationship between release and harm.

(5) Would public disclosure of the specific chemical identity reveal to your competitors the use of the substance or the process by which this substance is manufactured?

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

D. Volume Manufactured, Imported, or Processed (code j). Respondents who assert CBI claims for volume manufactured, imported, or processed must also answer the following questions:

(1) If you have also claimed submitter's name as confidential and EPA keeps confidential the link between your company identity and the volume manufactured, imported, or processed your identity will not be associated in any way with that volume. In this case, what harm to your company's competitive position would result from disclosing that volume? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

(2) If you have also claimed substance identity as confidential and EPA keeps confidential the link between the substance identity and the volume manufactured, imported, or processed, the substance identity will not be associated in any way with that volume. In this case, what harm to your company's competitive position would result from disclosing that volume? How could a competitor use that information? What is the causal relationship between the disclosure and the harm?

(3) If you have claimed neither submitter nor substance identity as confidential, what harm, if any, would result from release of your volume manufactured, imported, or processed? Provide a detailed description of both the harm and the causal relationship between disclosure and harm.

E. Use Information (code k). Respondents who assert CBI claims for use information must also answer the following questions:

(1) If you have also claimed submitter identity as confidential and EPA keeps confidential the link between your company identity and the use data, your identity will not be associated in any way with the use data. In this case, what harm to your competitive position would result from disclosing the use data? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

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

(2) If you have also claimed substance identity as confidential and EPA keeps confidenti the link between the substance identity and the use data, the substance identity will not be associated in any way with the use data. In this case, what harm to your company's competitive position would result from disclosing the use data? How could a competitor u this information? What is the causal relationship between the disclosure and the harm?

(3) If you have claimed neither submitter nor substance identity as confidential, what harm, if any, would result from release of your use information? Provide a detailed description of both the harm and the causal relationship between disclosure and harm.

F. Process information (code 1). Respondents who assert CBI claims for process information must also answer the following questions:

(1) If you have also claimed submitter identity as confidential and EPA keeps confidenti the link between your company identity and process information, your identity will not be associated in any way with this information. In this case, what harm to your competitive position would result from disclosing the process information? How could a competitor us this information? What is the causal relationship between the disclosure and the harm?

(2) If you have also claimed substance identity as confidential and EPA keeps confidenti the link between the substance identity and the process information, the substance identi will not be associated in any way with the process information. In this case, what harm your company's competitive position would result from disclosing the process information? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

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

(3) If you claimed neither submitter nor substance identity as confidential, what harm, any, would result from release of your process information? Provide a detailed descripti of both the harm and the causal relationship between the disclosure and the harm.

G. Other information (code m). Respondents who assert CBI claims using the "other information" category, must also answer the following questions:

(1) Is the item confidential in and of itself, or is it confidential because it will reveal some other confidential information, whether or not that other information is reported on this form? If the latter, what is the information that will be revealed, and how would disclosure of the item in turn lead to disclosure of the other information?

(2) Describe with specificity the harm to your company's competitive position which woul result from disclosing the information.

(3) If you have also claimed submitter identity as confidential and EPA keeps confidenti the link between your company identity and this information, your identity will not be associated in any way with the item claimed. In this case, what harm to your competitive position would result from disclosing the item? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

(4) If you have also claimed substance identity as confidential and EPA keeps confidenti the link between the substance identity and the item, the substance identity (other than category name) will not be associated in any way with the item claimed. In this case, wh harm to your company's competitive position would result from disclosing the item? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

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

certify [redacted] examined and am familiar with the information submitted i
CBI S[redacted] form and all attached documents. Based on my inquiry of those
viduals immediately responsible for obtaining the information, I believe that the
mation is true, accurate, and complete.

ROBERT A. MACIEL		4 DEC 92
NAME	SIGNATURE	DATE SIGNED
Principal EHS Specialist	(315) 456 - 1714	
TITLE	TELEPHONE NO.	

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