TSCA NON-CONFIDENTIAL BUSINESS INFORMATION

DOCUMENT DESCRIPTION	DOCUMENT CONTROL NUMBER	DATE RECEIVED
CAIR	90890000237	6-15-89

COMMENTS:

DOES NOT CONTAIN CBI

CONTAINS NO CBI

EPA

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90-890000237

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Comprehensive Assessment Information Rule

REPORTING FORM

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

EPA Form 7710-52

SECTION 1 GENERAL MANUFACTURER, IMPORTER, AND PROCESSOR INFORMATION

PART A GENERAL REPORTING INFORMATION

1.01 This Comprehensive Assessment Information Rule (CAIR) Reporting Form has been completed in response to the Federal Register Notice of..... [1][2] [2][2] [8][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][2][6][4][7][1]-[6][2]-[5]

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

(i) Chemical name as listed in the rule ..... NA

(ii) Name of mixture as listed in the rule .... _____

(iii) Trade name as listed in the rule ..... _____

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) .... _____

_____

[ ] 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 ..... Wingfil Part A

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

Yes ..... (1)

No 2

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

CBI

[ ]

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

ALEC NAUBOFF	[signature]	6/9/89
NAME	SIGNATURE	DATE SIGNED
CENTER MANAGER	(209) 485 - 2940	
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

CBI Name [T][H][E][ ][G][O][O][D][Y][E][A][R][ ][T][I][R][E][&][R][U][B][B][E][R][C][O]

[ ] Address [3][7][0][B][ ][S][.][B][A][G][L][E][Y][ ][A][V][E][N][U][E][ ][ ][ ][ ][ ]
Street

[F][R][E][S][N][O][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
City

[C][A] [9][3][7][2][5]--[ ][ ][ ][ ]
State Zip

Dun & Bradstreet Number .....[0][0]-[4][4][6]-[7][9][2][4]

EPA ID Number .....[ ][ ][ ][ ][ ][ ][ ][ ][ ]

Employer ID Number .....[3][4][0][2][5][3][2][4]0

Primary Standard Industrial Classification (SIC) Code .....[5][0][1][4]

Other SIC Code .....[ ][ ][ ][ ]

Other SIC Code .....[ ][ ][ ][ ]

1.10 Company Headquarters Identification

CBI Name [T][h][e][ ][G][o][o][d][y][e][a][r][ ][T][i][r][e][&][R][u][b][b][e][r][ ][C]c

[ ] Address [1][1][4][4][ ][E][a][s][t][ ][M][a][r][k][e][t][ ][S][t][r][e][e][t][ ][ ]
Street

[A][k][r][o][n][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
City

[O][H] [4][4][3][1][6]--[0][0][0][1]
State Zip

Dun & Bradstreet Number .....[0][0]-[4][4][6]-[7][9][2][4]

Employer ID Number .....[3][4][0][2][5][3][2][4]0

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

1.11 Parent Company Identification

CBI Name [T]h[e]_[G]o[o]d[y]e[a]r[_]T[i]r[e]&[R]u[b]b[e]r[_]C[o

[_] Address [1]1[4]4[_]E[a]s[t]_[M]a[r]k[e]t[_]S[t]r[e]e[t]_[_]
Street

[A]k[r]o[n]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]
City

[O]H] [4]4[3]1[6]--[0]0[0]1]
State Zip

Dun & Bradstreet Number .....[0]0]-[4]4[6]-[7]9[2]4]

1.12 Technical Contact

CBI Name [A]L[E]C[_]N[A]L[I]B[O]E[E]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]

[_] Title [C]E[N]T[E]R[_]M[A]N[A]G[E]R[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]

Address [3]7[0]8[_]S[_]B[A]G[L]E[V]_[A]V[E]N[U]E[_]_[_]_[_]_[_]
Street

[F]R[E]S[N]O[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]_[_]
City

[C]A] [9]3[7]2[5]--[_]_[_]_[_]
State Zip

Telephone Number .....[2]0[9]-[4]8[5]-[7]9[4]0]

1.13 This reporting year is from ..... [0]1] [8]8] to [1]2] [8]8]
Mo. Year Mo. Year

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

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

NA

CBI Name of Seller [_]

[_] Mailing Address [_]
Street

[_]
City

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

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

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

Contact Person [_]

Telephone Number ....[_][_][_]-[_][_][_]-[_][_][_][_]

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

NA

CBI Name of Buyer [_]

[_] Mailing Address [_]
Street

[_]
City

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

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

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

Contact Person [_]

Telephone Number ....[_][_][_]-[_][_][_]-[_][_][_][_]

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

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

CBI

[__]

Classification	Quantity (kg/yr)
Manufactured	Ø
Imported	Ø
Processed (include quantity repackaged)	103.04 ; (14) DRUMS
Of that quantity manufactured or imported, report that quantity:	
In storage at the beginning of the reporting year	N/A
For on-site use or processing	N/A
For direct commercial distribution (including export)	N/A
In storage at the end of the reporting year	N/A
Of that quantity processed, report that quantity:	
In storage at the beginning of the reporting year	2.36 ; (1) DRUM
Processed as a reactant (chemical producer)	Ø
Processed as a formulation component (mixture producer)	Ø
Processed as an article component (article producer)	103.04 ; (14) DRUMS
Repackaged (including export)	Ø
In storage at the end of the reporting year	2.36 ; (1) DRUM

[__] 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%)
TDI Prepolymer	ARNCO	40 ± 5.0
Petroleum Hydrocarbon	ARNCO	55 ± 5.0
Toluene Diisocyanate	ARNCO	4.0 ± 0.5
		Total 100%

[ ] 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 ..... Ø kg

Quantity imported ..... Ø kg

Quantity processed ..... 139.84 (19. drums) kg

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

Quantity manufactured ..... Ø kg

Quantity imported ..... Ø kg

Quantity processed ..... 22.08 (3. drums) kg

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

Quantity manufactured ..... Ø kg

Quantity imported ..... Ø kg

Quantity processed ..... Ø (Ø. drums) kg

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

CBI

[ ] NA

Continuous process 1

Semicontinuous process 2

Batch process 3

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

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

[__]

Continuous process 1

Semicontinuous process 2

Batch process ..... (3)

2.07 CBI 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.)

[__]

NA

Manufacturing capacity ..... _____ kg/yr

Processing capacity ..... _____ kg/yr

2.08 CBI 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.

[__]

	Manufacturing Quantity (kg)	Importing Quantity (kg)	Processing Quantity (kg)
Amount of increase			Ø
Amount of decrease			Ø

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

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

CBI

[ ]

	Days/Year	Average Hours/Day
Process Type #1 (The process type involving the largest quantity of the listed substance.)		
Manufactured		
Processed	48	4
Process Type #2 (The process type involving the 2nd largest quantity of the listed substance.)		
Manufactured		
Processed	N/A	N/A
Process Type #3 (The process type involving the 3rd largest quantity of the listed substance.)		
Manufactured		
Processed	N/A	N/A

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

CBI

[ ]

Maximum daily inventory ..... _____ kg

Average monthly inventory ..... _____ kg

[ ] 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 the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI
[ ]

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

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

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

[2]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.

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

CBI
[ ]

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

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

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

[2]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.

2.14 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]
X	H	< 0.01	I, CM

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

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

[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) Article

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

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

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

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

CBI

[__] Truck ..... (1)

Railcar ..... (2)

Barge, Vessel 3

Pipeline 4

Plane 5

Other (specify) _____ 6

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

CBI

[__]

Category of End Use

i. Industrial Products

Chemical or mixture ..... _____ kg/yr

Article ..... 92.74 kg/yr

ii. Commercial Products

Chemical or mixture ..... _____ kg/yr

Article ..... 10.3 kg/yr

iii. Consumer Products

Chemical or mixture ..... _____ kg/yr

Article ..... _____ kg/yr

iv. Other

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

Export ..... _____ kg/yr

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

Unknown customer uses ..... _____ kg/yr

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

SECTION 3 PROCESSOR RAW MATERIAL IDENTIFICATION

PART A GENERAL DATA

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

CBI

[ ]

Source of Supply	Quantity (kg)	Average Price ($/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.		
The listed substance was purchased from a mixture producer.	103.04	$8-; TOTAL MIXTURE

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

CBI

[ ]

Truck ..... (1)

Railcar 2

Barge, Vessel 3

Pipeline 4

Plane 5

Other (specify) _____ 6

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

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

[ ]

Bags 1

Boxes 2

Free standing tank cylinders 3

Tank rail cars 4

Hopper cars 5

Tank trucks 6

Hopper trucks 7

Drums 8

Pipeline 9

Other (specify) _____ 10

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

Tank cylinders ..... _____ mmHg

Tank rail cars ..... _____ mmHg

Tank trucks ..... _____ mmHg

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

PART B · RAW MATERIAL IN THE FORM OF A MIXTURE

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

CBI

[ ]

Trade Name	Supplier or Manufacturer	Average % Composition by Weight (specify ± % precision)	Amount Processed (kg/yr)
Wingfil Part A	ARNCO	4.0 ± 0.5	2576

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

PART C RAW MATERIAL VOLUME

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

	Quantity Used (kg/yr)	% Composition by Weight of Listed Substance in Raw Material (specify ± % precision)
Class I chemical	103.04	4.0 ± 0.5
Class II chemical		
Polymer		

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

SECTION 4 PHYSICAL/CHEMICAL PROPERTIES

General Instructions:

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

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

PART A PHYSICAL/CHEMICAL DATA SUMMARY

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

CBI

[ ]

	Manufacture	Import	Process
Technical grade #1	_____% purity	_____% purity	NA-mixture % purity
Technical grade #2	_____% purity	_____% purity	_____% purity
Technical grade #3	_____% purity	_____% purity	_____% purity

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

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

Yes ..... (1)

No 2

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

Your company 1

Another source ..... (2)

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

arnco

MATERIAL SAFETY DATA SHEET

REVISION DATE June 4, 1986

I. GENERAL INFORMATION

PRODUCT NAME : WING-FIL COMPONENT "A"
CHEMICAL NAME : TDI Prepolymer plus Petroleum Hydrocarbon
CHEMICAL FAMILY : Isocyanate Prepolymer and Petroleum Hydrocarbon
FORMULA : Proprietary
DOT HAZARD CLASS : UN2078 (TDI)
MANUFACTURER : ARNCO, 5141 Firestone Place, South Gate, CA 90280-3570
Phone No: (213)567-1378
CHEMTREC Phone No: (800)424-9300 District of Columbia: (202)483-7616

II. INGREDIENTS

Components	TLV	Flash Point °F	Boiling Point °F	Vapor Press. mm Hg	Vapor Dens. (Air=1)	Flammable Limit LEL UEL
TDI Prepolymer	0.02ppm 0.2mg/m^3	Not Estab.	Not Estab.	0.02 @77°F.	6.0	Not Estab.
Petroleum Hydrocarbon	0.2mg/m^3 TWA-ACGIH	>300	>550	<1.0 @68°F.	<0.1	No Data Available

III. PHYSICAL DATA

BOILING POINT (°F) : 464
VAPOR PRESSURE (mm Hg) : SEE SECTION II
VAPOR DENSITY (Air=1) : SEE SECTION II
SOLUBILITY IN WATER, % : Insoluble. Reacts with water to liberate CO_2 gas.
APPEARANCE & ODOR : Dark brown liquid. Sharp pungent odor.
SPECIFIC GRAVITY (H_2O=1) : 1.01
% VOLATILE BY VOLUME : Negligible
EVAPORATION RATE (Ether=1) : Not Established

5141 FIRESTONE PLACE • P.O. BOX 1983 • SOUTH GATE, CALIFORNIA 90280 • (213) 567-1378 • (800) 762-7620
TWX 910-321-4156

IV. FIRE & EXPLOSION HAZARD DATA

FLASH POINT (°F) : 320
FLAMMABLE LIMITS : Not Established
EXTINGUISHING MEDIA : Dry chemical, chemical foam, carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURES: Fire fighters should wear full emergency equipment with self-contained pressure-demand breathing apparatus. Use water to cool fire-exposed containers. Eliminate all sources of ignition.

UNUSUAL FIRE & EXPLOSION HAZARDS: During a fire, toxic gases are genererated. Closed containers may explode from extreme heat or from water contamination. DO NOT reseal water-contaminated containers, as pressure buildup up may cause violent rupture of the container.

V. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: 0.02 ppm; 0.2 mg/m^3

SYMPTOMS OF EXPOSURE:

INHALATION: May cause dizziness and nausea. Irritation of the upper and lower respiratory tract. Some individuals may develop isocyante hypersensitization and must avoid further exposure to even low isocyanate levels. Inhalation of mists may present a cancer hazard. Sinusitis, brochitis, asthma, and impaired ventilatory capacity can occur in some individuals.

INGESTION: Irritation and corrosive action in the mouth, stomach and digestive tract. Possibly liver toxicity. Aspiration into the lungs can cause chemical pneumonitis which can be fatal.

EYES: Liquid, vapors, or mist can cause sever irritation, redness, tearing, blurred vision and possibly irreversible damage to the eye.

SKIN: Irritation and allergic sensitivity may occur for some individuals, producing reddening, swelling or blistering, and skin sensitization, possibly resulting in dermatitis. This product contains petroleum oils similar to those catogarized by the International Agency for Research on Cancer (IARC) as causing skin cancer in mice after prolonged and repeated contact. Any potential hazard can be minimized by using recommended protectiv equipment to avoid skin contact and by washing thoroughly after handling.

V. HEALTH HAZARD DATA (continued)

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing unspecific bronchial hypersensitivity and, potentially, any allergies.

PRIMARY ROUTES OF ENTRY: Inhalation and skin contact.

EMERGENCY FIRST AID:

INHALATION: Remove victim to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, apply artificial respiration, and get medical attention immediately. NOTE TO PHYSICIAN: Treat symptomatically: bronchodilators; oxygen.

INGESTION: DO NOT INDUCE VOMITING. Aspiration can be fatal. Give a glass of milk or water, keep patient quiet and warm, and get prompt medical attention.

EYES: Flush immediately with water for at least 15 minutes, occasionally lifting the eyelid, and get prompt medical attention.

SKIN: Remove contaminated clothing and launder before reuse. Wash affected skin with soap and water. Consult a physician if swelling or reddening occurs.

VI. REACTIVITY DATA

STABILITY: Stable under normal, recommended storage conditions.

CONDITIONS TO AVOID: Open flame and storage temperatures above 120°F.

INCOMPATIBILITY: Materials to avoid are water. alcohols, ammonia, amines, and alkalis. Contaminated containers should be left vented and be moved to a safe area for neutralization and proper disposal.

HAZARDOUS POLYMERIZATION: May occur.

CONDITIONS TO AVOID: Exposure to high temperature, or resealing of containers contaminated with materials listed under INCOMPATIBILITY (materials to avoid).

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and dioxide, nitrogen oxides, sulfur oxides, unidentified organic compounds, and traces of hydrogen cyanide (HCN).

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VII. ENVIRONMENTAL PROTECTION PROCEDURES

SPILL RESPONSE: Evacuate and ventilate the area. Eliminate all sources of ignition. Respiratory protection must be worn during cleanup. Cover the spill with sawdust, vermiculite, or other absorbent material. Scoop and place in open container and remove to well ventilated area to be treated with a decontamination solution made up of 20% Tergitol TMN-10 (Union Carbide) and 80% water; or 5% concentrated ammonia, 2% detergent, and 93% water. Leave the container open for 24-48 hours. Wash down the spill area with decontamination solution. For major spills call CHEMTREC: (800) 424-9300.

WASTE DISPOSAL METHOD Decontaminated waste must be disposed of in accordance with Federal, State, and local environmental control regulations. It is your duty to comply with the Clean Air Act, Clean Water Act, and Resources Conservation and Recovery Act.

VIII. SPECIAL PROTECTION INFORMATION

EYE PROTECTION: Chemical workers goggles or full-face shield. Contact lenses should not be worn in or near work area.

RESPIRATORY PROTECTION: MSHA/NIOSH approved positive-pressure air-supplied respirator with full-face shield. Organic vapor filters are not effective against TDI vapor. The vapor pressure of TDI is such that at normal temperatures, vapor concentration in the air will exceed the TLV of 0.02 ppm.

SKIN PROTECTION: Impervious, chemical resistant (natural rubber) gloves, arm covers, aprons or coveralls, boots and caps.

VENTILATION RECOMMENDED: General mechanical ventilation and local exhaust, to maintain vapor concentration below the TLV.

OTHER PROTECTION: Safety showers and eye wash stations must be easily accessible. Provide a dry nitrogen blanket in bulk storage tanks.

IX. SPECIAL PRECAUTIONS

HYGIENIC PRACTICES IN HANDLING & STORAGE: Store below 100°F, preferably below 90°F, in tightly-closed containers to prevent atmospheric moisture contamination. DO NOT reseal if contamination is suspected. DO NOT store near open flame or high heat.

Wear protective equipment to prevent eye and skin contact. DO NOT breath vapors. Wash hands before eating or smoking.

Since emptied containers retain product residues (vapor or liquid), all hazard precautions given in this MSDS must be observed. For proper container disposal, fill with water and allow to stand unsealed for at least 48 hours then dospose of in accordance with Federal, State and local environmental control regulations.

THE INFORMATION IN THIS MSDS IS FURNISHED WITHOUT WARRANTY, EXPRESSED OR IMPLIED, EXCEPT THAT IT IS ACCURATE TO THE BEST KNOWLEDGE OF ARNCO. THE DATA ON THIS MSDS RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN. ARNCO ASSUMES NO LEGAL RESPONSIBILITY FOR USE OR RELIANCE UPON THIS DATA.

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

Yes 1

No 2

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

CBI

[ ]

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

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

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

CBI
[ ]

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

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

SECTION 5 ENVIRONMENTAL FATE

PART A RATE CONSTANTS AND TRANSFORMATION PRODUCTS NA-Mixture

5.01 Indicate the rate constants for the following transformation processes.

a. Photolysis:

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

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

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

b. Oxidation constants at 25°C:

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

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

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

d. Biotransformation rate constant:

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

Specify culture ..... _____

e. Hydrolysis rate constants:

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

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

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

f. Chemical reduction rate (specify conditions) _____

_____

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

_____

[ ] 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.

NA-Mixture

Media	Half-life (specify units)
Groundwater	_____
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
_____	_____	_____	in	_____
_____	_____	_____	in	_____
_____	_____	_____	in	_____
_____	_____	_____	in	_____

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

Method of calculation or determination ..... _____

5.04 Specify the soil-water partition coefficient, K_d ..... NA-Mixture _____ at 25°C

Soil type ..... _____

5.05 Specify the organic carbon-water partition coefficient, K_{oc} ..... NA-Mixture _____ at 25°C

5.06 Specify the Henry's Law Constant, H ..... NA-Mixture _____ 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 which it was determined, and the type of test used in deriving the BCF.

Bioconcentration Factor	Species NA-Mixture	Test[1]

[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.

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

[__]

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 use in your current operation, and which results in a final product with comparable performance in its end uses.

CBI

[__]

Substitute	Cost ($/kg)
No substitutes currently known	

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

General Instructions:

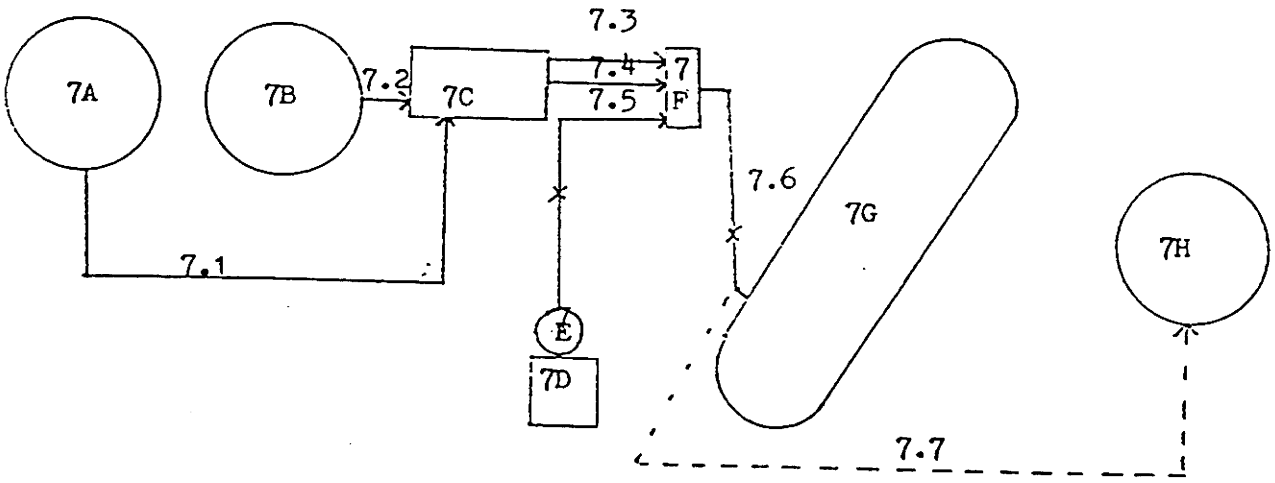
For questions 7.04-7.06, provide a separate response for each process block flow diagram provided in questions 7.01, 7.02, and 7.03. Identify the process type from which the information is extracted.

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 ..... Batch - Polyurethane Polymerization



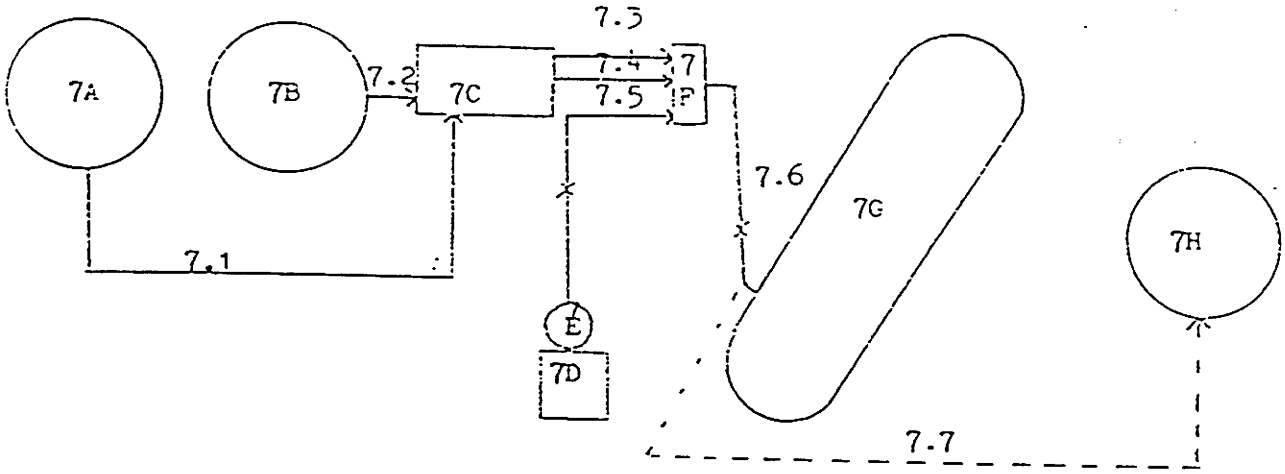
7A = TDI Prepolymer
7B = Amine Solution
7C = Metering Pump
7D = Isopropyl Alcohol Cleaning Solution
7E = Cleaning Solution Pump
7F = Components Mixing Head
7G = Tire Being Filled Through Valve Stem
7H = Clean-out Solution Drum

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

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

CBI

[ ] Process type ..... Batch - Polyurethane Polymerization



7A = TDI Prepolymer
7B = Amine Solution
7C = Metering Pump
7D = Isopropyl Alcohol Cleaning Solution
7E = Cleaning Solution Pump
7F = Components Mixing Head
7G = Tire Being Filled Through Valve Stem
7H = Clean-out Solution Drum

[ ] 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 ..... Batch- Polyurethane Polymerization

Unit Operation ID Number	Typical Equipment Type	Operating Temperature Range (°C)	Operating Pressure Range (mm Hg)	Vessel Composition
7A	Drum	Ambient	Atmospheric	Steel
7B	Drum	Ambient	Atmospheric	Steel
7C	Metering Pump	Ambient	Atmospheric	Stainless Steel
7D	5 Gallon Can	Ambient	Atmospheric	Steel
7E	Pump	Ambient	Atmospheric	Steel
7F	Mixing Head	Ambient	Atmospheric	Stainless Steel
7G	Tire	Ambient	Atmospheric	Vul. Rubber
7H	Drum	Ambient	Atmospheric	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 ..... Batch - Polyurethane Polymerization

Process Stream ID Code	Process Stream Description	Physical State[1]	Stream Flow (kg/yr)
7.1	TDI Prepolymer	OL	2576
7.3	TDI Prepolymer	OL	2576
7.6	Polymerizing Polyurethane	OL	5152

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

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

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

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

CBI

[ ] Process type ..... Batch - Polyurethane Polymerization

a. Process Stream ID Code	b. Known Compounds[1]	c. Concentrations[2,3] (% or ppm)	d. Other Expected Compounds	e. Estimated Concentrations (% or ppm)
7.1	TDI Prepolymer	40 ± 5.0 (E) (W)	NA	NA
	Petroleum Hydrocarbon	55 ± 5.0 (E) (W)	NA	NA
	Toluene Diisocyanate	4.0 ± 0.5 (E) (W)	NA	NA
7.3	TDI Prepolymer	40 ± 5.0 (E) (W)	NA	NA
	Petroleum Hydrocarbon	55 ± 5.0 (E) (W)	NA	NA
	Toluene Diisocyanate	4.0 ± 0.5 (E) (W)	NA	NA
7.6	Polyurethane	98 (E) - 99 (W)	NA	NA
	Toluene Diisocyanate	0.5 (E) 1 (W)	NA	NA
	Amine	0.5 (E) 1 (W)	NA	NA

7.06 continued below

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

7.06 (continued)

NA

[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		

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

A = Analytical result
E = Engineering judgement/calculation

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

V = Volume
W = Weight

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

PART 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 ..... Batch - Polyurethane Polymerization

NA

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

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 ..... Batch - Polyurethane Polymerization

NA

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)

8.05 continued below

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

8.05 (continued)

NA

[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)

NA

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

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

NA

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

V = Volume
W = Weight

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

Code	Method	Detection Limit (± ug/l)
1		
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 ..... Batch - Polyurethane Polymerization

NA

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

[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

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).

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

[__]

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

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	✓	✓	'1985'	INDEFINITE
Age at hire				
Work history of individual before employment at your facility	✓	✓		
Sex	✓	✓		
Race	✓	✓		
Job titles	✓	✓		
Start date for each job title	✓	✓		
End date for each job title	✓	✓		
Work area industrial hygiene monitoring data	'N/A'	'N/A'		
Personal employee monitoring data	✓	✓		
Employee medical history	✓	✓		
Employee smoking history	'N/A'	'N/A'		
Accident history	✓	✓		
Retirement date	✓	✓		
Termination date	✓	✓		
Vital status of retirees	'N/A'	'N/A'		
Cause of death data	'N/A'	'N/A'		

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

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

CBI

[ ]

a. Activity	b. Process Category	c. Yearly Quantity (kg)	d. Total Workers	e. Total Worker-Hours
Manufacture of the listed substance	Enclosed			
	Controlled Release			
	Open			
On-site use as reactant	Enclosed	103.04	1	192
	Controlled Release			
	Open			
On-site use as nonreactant	Enclosed			
	Controlled Release			
	Open			
On-site preparation of products	Enclosed			
	Controlled Release			
	Open			

[ ] 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

[ ]

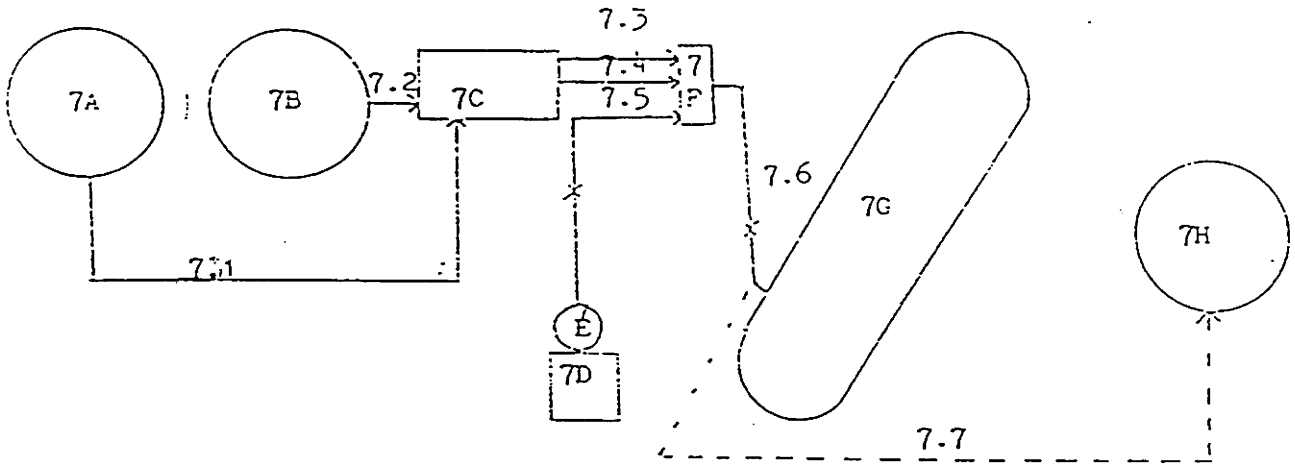
Labor Category	Descriptive Job Title
A	GENERAL SERVICE
B	FLEET SERVICE
C	SERVICE MGR.
D	OFFICE MGR.
E	
F	
G	
H	
I	
J	

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

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

CBI

[ ] Process type ..... Batch - Polyurethane Polymerization



7A = TDI Prepolymer
7B = Amine Solution
7C = Metering Pump
7D = Isopropyl Alcohol Cleaning Solution
7E = Cleaning Solution Pump
7F = Components Mixing Head
7G = Tire Being Filled Through Valve Stem
7H = Clean-out Solution Drum

Note: All above is considered one work area

[ ] 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 ..... Batch - Polyurethane Polymerization

Work Area ID	Description of Work Areas and Worker Activities
1	Pumping TDI/Amine solutions to mixer, filling tires through valve stem with polyurethane, and cleaning hosing with alcohol
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 ..... Batch - Polyurethane Polymerization

Work area 1

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
B	1	DIRECT SKIN, INHALATION	OL	4	48

[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 ..... Batch - Polyurethane Polymerization

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)
*	*	*

*No tests have been conducted

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

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

CBI

[__]

No monitor worker exposure available

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

Do not conduct

[__] Equipment Type[1]	Detection Limit[2]	Manufacturer	Averaging Time (hr)	Model Number

[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

[ ] **No tests conducted**

Test Description	Frequency (weekly, monthly, yearly, etc.)

[ ] 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

None *

[ ] Process type ..... Batch - Polyurethane Polymerization

Work area 1

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

*Not aware that any engineering controls are needed

[ ] 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 ..... Batch - Polyurethane Polymerization

Work area 1

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

No Modifications

[ ] 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 ..... Batch - Polyurethane Polymerization

Work area 1

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

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

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

CBI

[__] Process type ..... Batch - Polyurethane Polymerization

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

[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 ..... Batch - Polyurethane Polymerization

Work area 1

Area is not restricted

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 ..... Batch - Polyurethane Polymerization

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				
Vacuuming				
Water flushing of floors				

Other (specify)

HOUSEKEEPING TASKS ARE PERFORMED AFTER USING EQUIPMENT, SUBSTANCE EACH OCCURRANCE; R/E, SWEEPING, REFUSE DISPOSAL, FLUSHING OF EQUIPMENT, SYSTEM, WORK AREA.

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

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

Routine exposure

Yes 1

No 2

Emergency exposure

Yes 1

No 2

If yes, where are copies of the plan maintained?

Routine exposure: _____

Emergency exposure: _____

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

Yes 1

No 2

If yes, where are copies of the plan maintained? _____

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

Yes 1

No 2

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

Plant safety specialist 1

Insurance carrier 2

OSHA consultant 3

Other (specify) _____ 4

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

SECTION 10 ENVIRONMENTAL RELEASE

General Instructions:

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

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

PART A GENERAL INFORMATION

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

CBI

[ ] Industrial area ..... (1)

Urban area 2

Residential area 3

Agricultural area 4

Rural area ..... (5)

Adjacent to a park or a recreational area 6

Within 1 mile of a navigable waterway 7

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

Within 1 mile of a non-navigable waterway ..... (9)

Other (specify) WITHIN 1 MILE OF AN AGRICULTURAL AREA ..... (10)

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

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

Latitude ..... 36 ° 43 ' 09 "

Longitude ..... 119 ° 44 ' 00 "

UTM coordinates ..... Zone —, Northing —, Easting —

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

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

Predominant wind direction ..... _____

10.04 Indicate the depth to groundwater below your facility.

Depth to groundwater ..... _____ 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	NA	NA
Importing	NA	NA	NA
Processing	N	N	N
Otherwise used	NA	NA	NA
Product or residual storage	N	N	N
Disposal	N	N	N
Transport	N	N	N

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

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

CBI

[ ]

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

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

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

CBI

[ ] Process type ..... Batch - Polyurethane Polymerization

NA - Essential a closed system

Stream ID Code	Control Technology	Percent Efficiency

[ ] 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 ..... Batch - Polyurethane Polymerization

Point Source ID Code	Description of Emission Point Source
	NA

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

NA

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)

[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

[__]

NA

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]

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

CBI

[ ] Process type ..... Batch - Polyurethane Polymerization

Percentage of time per year that the listed substance is exposed to this process type ..... 13 %

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			✓			

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

10.13 continued on next page

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

10.13 (continued)

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

[3]Conditions existing in the valve during normal operation

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

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

---

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

CBI

[ ]

NA

a. Number of Pressure Relief Devices	b. Percent Chemical in Vessel[1]	c. Control Device	d. Estimated Control Efficiency[2]

[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. 'N/A'

CBI

[ ] Process type ..... Batch - Polyurethane Polymerization

Equipment Type	Leak Detection Concentration (ppm or mg/m^3) Measured at ___ Inches from Source	Detection Device[1]	Frequency of Leak Detection (per year)	Repairs Initiated (days after detection)	Repairs Completed (days after initiated)
Pump seals					
Packed					
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					

[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]

[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.

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. N/A

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

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					

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

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A DIVISION OF
THE GOODYEAR TIRE & RUBBER COMPANY
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