Screen For PO.HISTORY Show Purchase History for a Part

Resin Stripper

Part Number 400141 Desc [illegible]

Accounting Value 38.840
Last Actual Cost 38.840
Avg Actual Cost . 38.840

gallons

Vendor		PO Nbr		Unit Cost	Quantity	PO Date	Deliveries -- First	Last
*202	MINI-CRAFT FLORIDA	904396		38.840/	5	12-14-90	12-17-90	
*284	PROGRESS SALES COR	902508	1	35.000/	10	06-29-90	07-18-90	
*284	PROGRESS SALES COR	902508		35.000/	5	06-29-90	07-18-90	
*284	PROGRESS SALES COR	902199		35.000/	10	06-08-90	06-15-90	
*284	PROGRESS SALES COR	901465		35.000/	5	04-17-90	04-30-90	
*284	PROGRESS SALES COR	900871	1	35.000/	10	03-06-90	03-09-90	
*284	PROGRESS SALES COR	900871		35.000/	5	03-06-90	03-09-90	
*284	PROGRESS SALES COR	893163		32.000/	5	12-06-89	12-08-89	
*284	PROGRESS SALES COR	892864		32.000/	5	11-10-89	11-13-89	
*284	PROGRESS SALES COR	892212		32.000/	10	08-25-89	08-29-89	

4-90

Part Number 400141 Desc [illegible] STRIPPER UM GL

Accounting Value 38.840
Last Actual Cost 38.840
Avg Actual Cost 38.840

Vendor		PO Nbr		Unit Cost	Quantity	PO Date	Deliveries -- First	Last
	[illegible]	[illegible]		[illegible]	5	[illegible]	[illegible]	
*284	PROGRESS SALES COR	891495		[illegible]	5	[illegible]	[illegible]	
*284	PROGRESS SALES COR	891436		26.000/	10	[illegible]	[illegible]	
*284	PROGRESS SALES COR	890861		26.000/	15	04-[illegible]	[illegible]	
*284	PROGRESS SALES COR	890231		26.000/	5	02-06-89	02-13-89	
*284	PROGRESS SALES COR	65769		20.500/	30	12-12-88	12-15-88	
*284	PROGRESS SALES COR	65490		26.000/	10	10-28-88	11-03-88	
*284	PROGRESS SALES COR	65200		26.000/	10	09-23-88	09-27-88	
*284	PROGRESS SALES COR	64925		30.000/	10	08-12-88	08-16-88	
*284	PROGRESS SALES COR	64350		26.000/	10	05-18-88	05-19-88	

5-89
4-89
5-88

50 @ [illegible] 10.8 lb/gal

150 gal /2 yrs
x 10.8 lb/gal
x 1/2000
x 1/2
= 0.40 tpy

Screen For PO.HISTORY Show Purchase History for a Part

Foam Gun Cleaner

Accounting Value 9.730
Last Actual Cost 9.730
Avg Actual Cost 9.730

gallons

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	
*348	FCI INC.	901151	9.730/	25		5/90
*348	FCI INC.	64777	5.730/	55		
*348	FCI INC.	64711	/gal	10		
*348	FCI INC.	64351	/gal	10		5/89

100 gal/yr
× 8.5 lb/gal
= 850 lb/yr
× 1/2000
= 0.42 tn/y

Screen For PO.HISTORY Show Purchase History for a Part

Part Number 400186 Desc LACQUER THINNER UM CT

Accounting Value 149.000
Last Actual Cost 149.000
Avg Actual Cost 149.000

gallons

Vendor	PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last	
*125	HORIZON CHEMICALS, 903400	149.000/	2	08-30-90	08-30-90		8/90
*125	HORIZON CHEMICALS, 903401	149.000/	55	08-30-90	08-30-90		
*125	HORIZON CHEMICALS, 903100	8.430/	2	08-30-90	08-30-90		
*125	HORIZON CHEMICALS, 902583	19.950/	2	07-05-90	07-05-90		
	HORIZON CHEMICALS, 902[illegible]	19.950/	2	06-13-90	06-13-90		
	[illegible]	[illegible]	1	[illegible]	[illegible]		
*125	HORIZON CHEMICALS, [illegible]	[illegible]	1	[illegible]	[illegible]		
*125	HORIZON CHEMICALS, 909020	[illegible]	1	[illegible]	[illegible]		
*125	HORIZON CHEMICALS, 901498	19.950/	2	05[illegible]			
*125	HORIZON CHEMICALS, 901092	19.950/	2	03-28-90	[illegible]		

Part Number 400186 Desc LACQUER THINNER UM CT

Accounting Value 149.000
Last Actual Cost 149.000
Avg Actual Cost 149.000

Vendor	PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last	
*125	HORIZON CHEMICALS, 900821	[illegible]	2	[illegible]			
*125	HORIZON CHEMICALS, 900601	[illegible]	2	[illegible]			
[illegible]	[illegible]	[illegible]	1	01-16-90	01-17-90		1/90

75 gal / 8 mo
= 112.5 gal/yr
× 6.9 lb/gal
= 776 lb/yr
× 1/2000
= 0.39 tpy

Screen For PO.HISTORY Show Purchase History for a Part

Part Number 400142 Desc WAX, GOLDEN LIQUID

Accounting Value 13.500
Last Actual Cost 13.500
Avg Actual Cost 13.377

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
*359	GLS CHEMICAL FIBER	904252	13.500/	55	11-30-90	12-03-90	
*844	GLASSCOAT, INC.	903759	13.350/	61	10-04-90	10-09-90	
*358	GLS CHEMICAL FIBER	903269	13.500/	55	09-29-90	08-31-90	
*358	GLS CHEMICAL FIBER	902208	13.500/	55	08-[illegible]	08-[illegible]	
*358	GLS CHEMICAL FIBER	901509	13.500/	55	[illegible]	04-27-90	
*358	GLS CHEMICAL FIBER	1509	13.500/	55	[illegible]	04-20-90	
*384	SPECIALTY PRODUCTS	890909	9.270/	55	03-[illegible]	03-12-90	
	SPECIALTY PRODUCTS	890386	17.180/	55	01-26-90	02-02-90	
	SPECIALTY PRODUCTS	892976	17.180/	55	11-13-89	11-20-89	
	SPECIALTY PRODUCTS	892351	17.180/	55	10-03-89	10-10-89	

4-90

Part Number 400142 Desc WAX, GOLDEN LIQUID UM GL

Accounting Value 13.500
Last Actual Cost 13.500
Avg Actual Cost 13.377

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
*384	SPECIALTY PRODUCTS	892047	17.180/	55	09-22-89	09-06-89	
*384	SPECIALTY PRODUCTS	891625	17.180/	55	06-27-89	07-25-89	
*384	SPECIALTY PRODUCTS	891074	17.180/	55	05-02-89	05-16-89	
*384	SPECIALTY PRODUCTS	890468	17.180/	55	03-27-89	03-02-89	
*384	SPECIALTY PRODUCTS	890083	17.180/	55	01-12-89	02-01-89	
*384	SPECIALTY PRODUCTS	65725	17.200/	57	12-01-88	12-15-88	
*384	SPECIALTY PRODUCTS	65211	17.200/	55	09-26-88	10-10-88	
*384	SPECIALTY PRODUCTS	64968	17.200/	55	08-22-88	09-05-88	
*384	SPECIALTY PRODUCTS	64522	22.490/	45	06-16-88	06-24-88	
*384	SPECIALTY PRODUCTS	64345	22.490/	30	05-17-88	05-20-88	

5-89
4-89
5-88

847 gal @ 7.2 lb/gal

PRO-LINE BOATS:

10/15/90 Apx; Saw, Sanding, & Router/shaper Dust

From our woodshop and (*) cabinet shop. (only in operation fully for 6 months) we generate (±) 2½ 55 gal drums per day. We have small dust collectors (55 gal Vac. type) connected to all but one of our machines

S M Kennedy

0170029 0170029 AC09-180615

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DER Form #
Form Title
Effective Date
DER Application No.
(Filled in by DER)
D. E. R.

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

MAY 14 1990

SOUTHWEST DISTRICT TAMPA

SOURCE TYPE: Boat Manufacturing Facility [ ] New[1] [X] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: Pro-Line Boats **COUNTY:** Citrus

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Building #6 - Boat Fabrication

SOURCE LOCATION: Street 1520 South Suncoast Boulevard City Homosassa

UTM: East North

Latitude 28 ° 50 ' 30 "N Longitude 82 ° 34 ' 20 "W

APPLICANT NAME AND TITLE: Mr. Ken Hall, President and CEO, Pro-Line Boats

APPLICANT ADDRESS: P.O. Box 1348, Crystal River, Florida 32629

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Pro-Line Boats

I certify that the statements made in this application for a Construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Ken Hall

Ken Hall, President and CEO
Name and Title (Please Type)

Date: 5/11/90 Telephone No. (904)795-4111

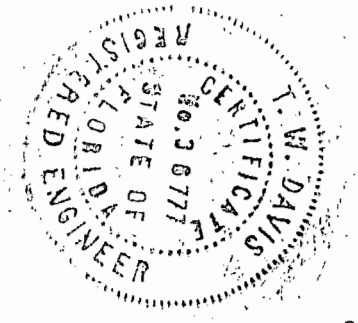
B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

Northwest District 160 Governmental Center Pensacola, Florida 32501-5794 904-436-8300
Northeast District 3426 Bills Rd. Jacksonville, Florida 32207 904-798-4200
Central District 3319 Maguire Blvd. Suite 232 Orlando, Florida 32803-3767 407-894-7555
Southwest District 4520 Oak Fair Blvd. Tampa, Florida 33610-7347 813-623-5561
South District 2269 Bay St. Fort Myers, Florida 33901-2896 813-332-2687
Southeast District 1900 S. Congress Ave., Suite A West Palm Beach, Florida 33406 407-964-9668

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Thomas W. Davis

Thomas W. Davis
Name (Please Type)

Environmental Science and Engineering
Company Name (Please Type)

P.O. Box 1703, Gainesville, Florida 32602
Mailing Address (Please Type)

Florida Registration No. 36777 Date: 5/7/90 Telephone No. (904) 332-3318

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

See Attachment A

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction --- Completion of Construction November 1971

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

None

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Warning Notice WN90-0004AP09SWD

E. Requested permitted equipment operating time: hrs/day 16 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr_____; if seasonal, describe:_____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

See Attachment B

1. Is this source in a non-attainment area for a particular pollutant? No

   a. If yes, has "offset" been applied?

   b. If yes, has "Lowest Achievable Emission Rate" been applied?

   c. If yes, list non-attainment pollutants.

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? No

   a. If yes, for what pollutants?_____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Polylite Resin	VOC	45%	340 lb/hr*	Building No. 6, Fans
Gel Coat	VOC	34.4%	62 lb/hr*	Building No. 6, Fans
	*Assumes 16 hr/day, 7 day/week, 52 week/year operation			
	MSDS's are included as Attachment C			

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not Applicable

2. Product Weight (lbs/hr): Not Applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
VOC	174.3	507.6	N/A	N/A	1,015,200	507.6	Building No. 6, Fans

[1]See Section V, Item 2. See Attachment D for calculations

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
None				

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur:_____ Percent Ash:_____

Density: _____ lbs/gal Typical Percent Nitrogen:_____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution):_____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not Applicable Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Hazardous waste is handled through Pro-Line Boats' FDER approved processing procedures.

Non-hazardous solid waste is handled in compliance with the applicable state and local regulations.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

Stacks are not present. Fan data is provided in Attachment D.

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

_____

_____

_____

_____

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

Not Applicable

A. Are *standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60* applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of conatruction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Not Applicable

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^2* _____ Wind spd/dir

Period of Monitoring _____/____/_____ to _____/____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____/_____/_____ to _____/_____/_____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

Attachment A

Nature and Extent of Project

Pro-Line Boats has been manufacturing pleasure boats at the company's Homosassa, Florida, facility since November, 1971. A map giving the plant location is provided as Figure 1. As part of the manufacturing operation, Pro-Line builds boats and boat components utilizing fiberglass and polyester resin. Pro-Line coats the manufactured components with acrylic paint. These operations, which release volatile organic compounds (VOC), are conducted in Building No. 6 at Pro-Line's Homosassa plant. The location of Building No. 6 may be seen on the facility plot plan provided as Figure 2.

Building No. 6 consists principally of two large open rooms that contain the fabricating and coating operations. Fabricating is conducted during the day shift, while coating is performed during the second shift. Building ventilation to meet applicable industrial hygiene standards is accomplished by using seven large exhaust fans to draw air from the building (see Figure 3). Building doors are left open to allow replacement air to flow into the building. The building also has 11 large roof vents to aid building ventilation, but the effectiveness of these openings to maintain adequate indoor VOC levels without assistance from the fans is questionable.

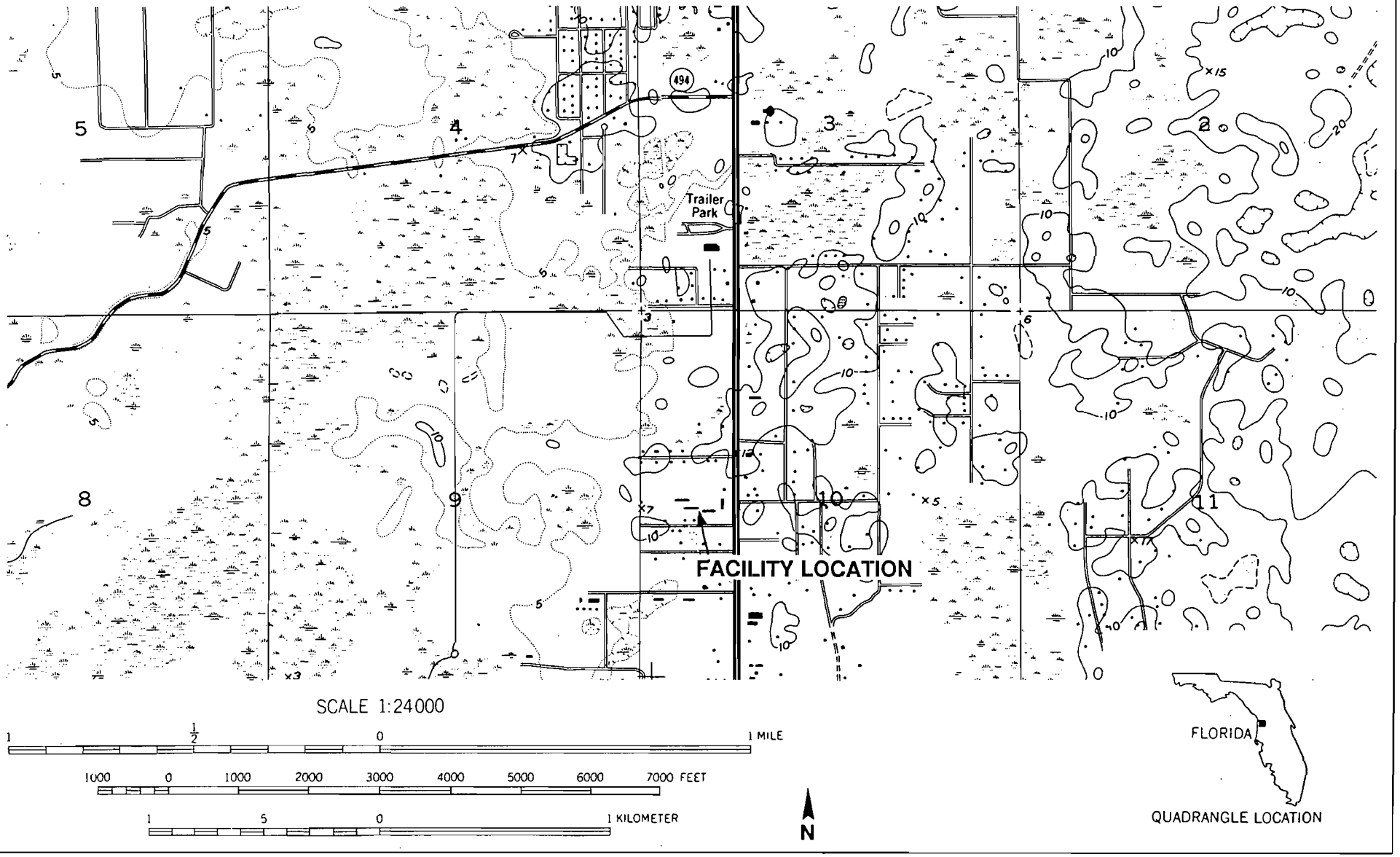
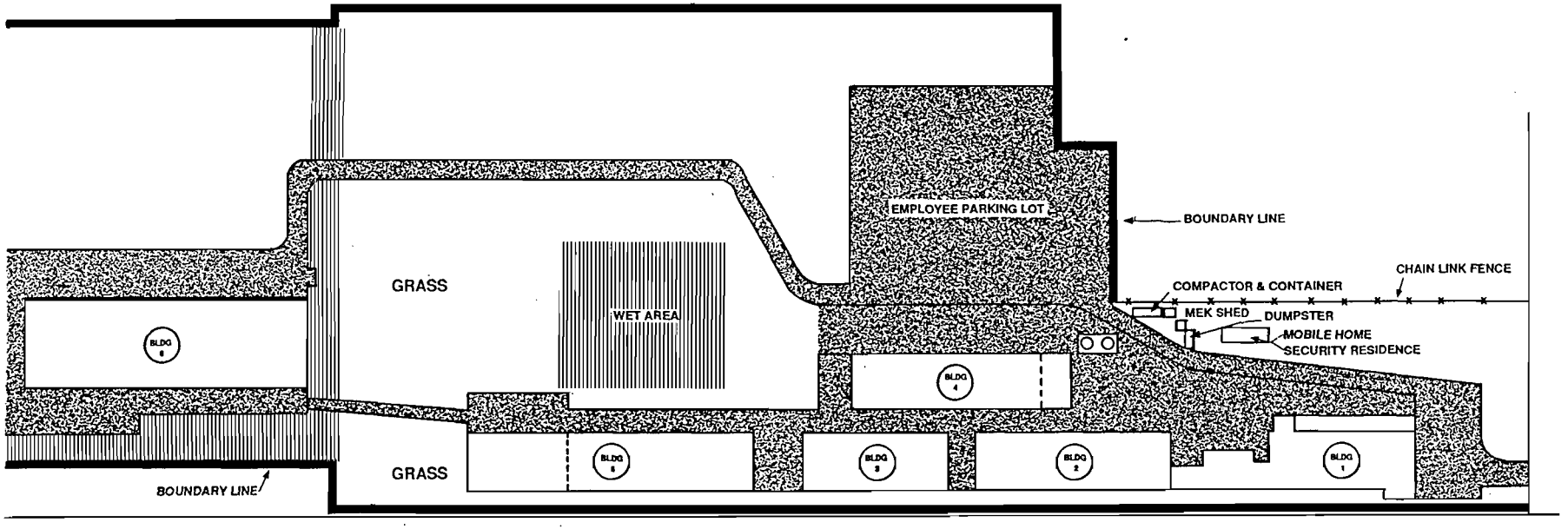


Figure 1
LOCATION OF PRO-LINE BOATS MANUFACTURING FACILITY

SOURCE: USGS, 1988.

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

PRO-LINE 4/90 mk



NO SCALE

N

KEY

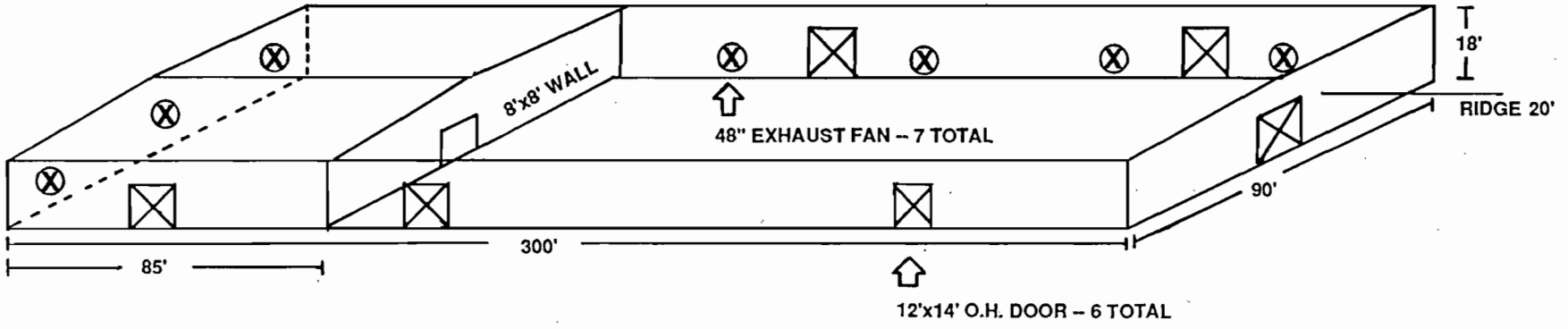
PAVED

WET AREA

Figure 2
PRO-LINE BOAT MANUFACTURING
FACILITIES PLOT PLAN

SOURCE: PRO-LINE BOATS, 1990.

ENVIRONMENTAL SCIENCE
& ENGINEERING, INC.



SCALE

0 5' FEET

Figure 3
BUILDING NO. 6
VENTILATION ARRANGEMENT

SOURCE: PRO-LINE BOATS, 1990.

ENVIRONMENTAL SCIENCE
& ENGINEERING, INC.

Attachment B

Explanation of Section II, Item F.3

The Pro-Line Boat facility at Homosassa began operations in November, 1971, prior to January 18, 1972. Therefore, the facility is defined as an existing source under Chapter 17-2.100 (68) and Prevention of Significant Deterioration requirements do not apply.

Attachment C

Material Safety Data Sheets

MATERIAL SAFETY DATA SHEET

CO-PLAS INCORPORATED
5106 WHEELER AVE.
FORT SMITH, AR 72901

INFORMATION & EMERGENCY TELEPHONE NO.: 501-646-7865
CHEMTREC : 800-424-9300

PREPARATION DATE: 02/13/90 REPLACES DATE: NEW MSDS PREPARER: MGG

SECTION I - PRODUCT IDENTIFICATION

WHITE GEL COAT

WG-30497

SECTION II - HAZARDOUS INGREDIENTS

CHEMICAL NAME	CAS NUMBER	WT. PERCENT IS LESS THAN	OCCUPATIONAL EXPOSURE LIMITS (TLV-TWA)	(TLV-STEL)	(PEL)	VAPOR PRESSURE mmHg 20C	KNOWN OR SUSPECTED CARCINOGEN	SEC 313
METHYL METHACRYLATE MONOMER	80-62-6	5%	100 PPM	75 PPM	NO INFO	29.0	NO	NO
STYRENE	100-42-5	30%	50 PPM	100 PPM	100 PPM	4.5	YES	YES
PIGMENT WHITE 6	13463-67-7	15%	10 MG/M3	NO INFO	15 MG/M3	0.0	NO	NO
SILICON DIOXIDE	7631-86-9	5%	10 MG/M3	NO INFO	20 MPPCF	0.0	NO	NO

THIS PRODUCT CONTAINS ONE OR MORE MATERIALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND THE COMMUNITY RIGHT-TO-KNOW ACTS OF 1986 AND OF 40 CFR 372.

N.A. - NOT APPLICABLE

SECTION III - PHYSICAL DATA

BOILING RANGE : 214-295 F
ODOR : AROMATIC
APPEARANCE : WHITE LIQUID
VOLATILE BY WEIGHT: 34.4%
VOLATILE BY VOLUME: 51.0%

VAPOR DENSITY : IS HEAVIER THAN AIR
EVAPORATION RATE: IS SLOWER THAN ETHER

SOLUBILITY : INSOLUBLE
PRODUCT DENSITY : 10.8 LBS./GAL. (U.S.)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION:

OSHA - FLAMMABLE LIQUID - CLASS IC
DOT - FLAMMABLE LIQUID OR SOLID

FLASH POINT: 82 F (SETAFLASH CLOSED CUP)

LEL: 1.1 %
UEL: 12.5 %

EXTINGUISHING MEDIA: CARBON DIOXIDE DRY CHEMICAL FOAM

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

UNUSUAL FIRE AND EXPLOSION HAZARDS: KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, SPARKS, AND OPEN FLAME. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT.

SPECIAL FIREFIGHTING PROCEDURES: WATER MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. USE SELF-CONTAINED BREATHING APPARATUS.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVER EXPOSURE: INHALATION: IRRITATION TO RESPIRATORY TRACT, HEADACHE, DIZZINESS AND NAUSEA. SKIN CONTACT: PRIMARY IRRITATION. EYE CONTACT: PRIMARY IRRITATION. PROLONGED OR REPEATED EXPOSURE CAN CAUSE LIVER AND KIDNEY DAMAGE AND ALLERGIC SKIN REACTION. SOME REPORTS INDICATE THAT STYRENE AND A POTENTIAL METABOLITE OF STYRENE, STYRENE OXIDE, ARE MUTAGENIC. THERE IS ALSO EVIDENCE THAT STYRENE AND ITS OXIDE CAN DAMAGE CHROMOSOMES.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: PRE-EXISTING SENSITIVITY TO SOLVENTS CAN CAUSE A HEIGHTENED REACTION TO EXPOSURE TO THIS PRODUCT.

PRIMARY ROUTE(S) OF ENTRY: INHALATION DERMAL

EMERGENCY AND FIRST AID PROCEDURES: INHALATION: REMOVE TO FRESH AIR, RESTORE BREATHING. CONSULT A PHYSICIAN. SKIN CONTACT: FLUSH WITH WATER. EYE CONTACT: FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER. CONSULT A PHYSICIAN. IF SWALLOWED, DILUTE BY GIVING 2 GLASSES OF WATER, CONSULT PHYSICIAN. DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS VICTIM.

SECTION VI - REACTIVITY DATA

STABILITY: THIS PRODUCT IS STABLE UNDER NORMAL STORAGE CONDITIONS.

HAZARDOUS POLYMERIZATION: COULD OCCUR UNDER NORMAL CONDITIONS. CARE MUST BE EXERCISED.

HAZARDOUS DECOMPOSTION PRODUCTS: ON BURNING, EMITS ACRID FUMES, CARBON DIOXIDE AND CARBON MONOXIDE.

CONDITIONS TO AVOID: HEAT AND DIRECT SUNLIGHT

INCOMPATABILITY: STRONG ACIDS, PEROXIDES AND OTHER OXIDIZING AGENTS, ORGANIC METAL SOAP.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: KEEP SPECTATORS AWAY. ELIMINATE IGNITION SOURCES. USE SELF-CONTAINED BREATHING APPARATUS (PRESSURE DEMAND, OSHA/NIOSH-APPROVED), IMPERVIOUS CLOTHING AND BOOTS. DIKE AND CONTAIN SPILL WITH SAND OR EARTH. TRANSFER LIQUID TO CONTAINERS FOR RECOVERY OR DISPOSAL AND SOLID DIKING MATERIAL TO SEPERATE CONTAINERS FOR DISPOSAL.

WASTE DISPOSAL METHOD: INCINERATE LIQUID AND CONTAMINATED DIKING MATERIAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: NONE NEEDED IF GOOD VENTILATION IS MAINTAINED. OTHERWISE WEAR SELF-CONTAINED BREATHING APPARATUS (PRESSURE DEMAND, OSHA/NIOSH APPROVED OR EQUIVALENT).

VENTILATION: SUFFICIENT VENTILATION, IN VOLUME AND PATTERN, SHOULD BE PROVIDED TO KEEP AIR CONTAMINATION BELOW CURRENT APPLICABLE OSHA PERMISSIBLE EXPOSURE LIMIT OR ACGIH'S TLV LIMIT.

PROTECTIVE GLOVES: RECOMMENDED FOR PROLONGED OR REPEATED CONTACT.

EYE PROTECTION: CHEMICAL GOGGLES WITH SIDE SHIELDS OR FACE SHIELD RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT: USE PROTECTIVE CREAMS WHERE SKIN CONTACT IS LIKELY. REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE. EYEWASH FACILITY, SAFETY SHOWER, IMPERVIOUS CLOTHING

HYGIENIC PRACTICES: WASH HANDS BEFORE EATING OR SMOKING. SMOKE IN DESIGNATED AREAS ONLY.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: STORE IN A COOL DRY AREA WITH VENTILATION SUITABLE FOR STORING MATERIALS SHOWN IN SECTION II.

OTHER PRECAUTIONS: PROVIDE RESPIRATORY PROTECTION AGAINST FUMES GENERATED DURING BURNING. PROVIDE RESPIRATORY PROTECTION AGAINST DUST CREATED BY SANDING AND/OR GRINDING OF FINISHED PARTS.

SECTION X - HMIS RATINGS

HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 2

REICHHOLD

MATERIAL SAFETY DATA SHEET

REICHHOLD CHEMICALS, INC.
Reactive Polymers Division
800 Capitola Drive
Research Triangle Park
Durham, NC 27713

Information Telephone No. 919-544-9225

ALL CHEMICAL EMERGENCIES
1-800-424-9300

Feb 19 1990

Safety/Environmental Manager
PRO-LINE BOATS, INC
5300 SOUTH SUNCOAST BLVD

HOMOSASSA, FL 32646

Dear Customer:

To ensure safe use of our products and to comply with OSHA Hazard Communication Standards, we are pleased to send you the latest Material Safety Data Sheet(s) for the following Reichhold product code(s):

33-236

This information is being forwarded to you through our computer-assisted program, which automatically generates and mails a revised or updated MSDS to all purchasers of the product at the time of the first shipment.

To be sure that the enclosed MSDS(s) serves its purpose, please pass it along to all personnel who handle or use the product and to the appropriate product safety personnel.

Sincerely,

Customer Service

REICHHOLD

MATERIAL SAFETY DATA SHEET

REICHHOLD CHEMICALS, INC.
Reactive Polymers Division
800 Capitola Drive
Research Triangle Park
Durham, NC 27713

Information Telephone No. 919-544-9225

ALL CHEMICAL EMERGENCIES
1-800-424-9300

SECTION I - PRODUCT IDENTIFICATION

Product Code: 33-236-00
Trade Name: Polylite® 33-236-00
Product Class: Unsaturated Polyester
C.A.S. Number: Mixture

SECTION II - INGREDIENTS

Ingredients	CAS #	Weight max. %	Exposure Limits
Polyester resin	Proprietary	65.0	None assigned
Styrene Monomer	100-42-5	45.0	50.0 ppm

SECTION III - PHYSICAL DATA

Boiling Point: 295 Deg. F.
Volatile %: 35 - 45
Evap. Rate: Slower than n-Butyl Acetate.
Appearance: Purple opaque liquid. Pungent odor.
Vapor Density: Heavier than Air.
Specific Grav: 1.10

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class: IC Flash Point: 89 Deg. F. LEL: 1.1

-EXTINGUISHING MEDIA:
Water spray, foam, dry chemical, carbon dioxide or any Class B extinguishing agent.

-SPECIAL FIREFIGHTING PROCEDURES:
Firefighters and others exposed to vapors or products of combustion should wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

-UNUSUAL FIRE & EXPLOSION HAZARDS:
At elevated temperatures, such as in a fire, polymerization may take place. If polymerization takes place in a closed container, there is the possibility of violent rupture of the container. Product vapors may form an explosive mixture in air.

SECTION V - HEALTH HAZARD DATA

-PERMISSIBLE EXPOSURE LEVEL
OSHA PEL and ACGIH TLV for styrene are both 50 ppm for an 8-hour Time Weighted Average (TWA). The OSHA and ACGIH Short Term Exposure Level (STEL) are 100 ppm for a 15-minute period. Exposure to styrene may exceed the STEL during a 15-minute period (no ceiling for brief exposures), however the average for [illegible]

REICHHOLD

MATERIAL SAFETY DATA SHEET

Information Telephone No. 919-544-9225

REICHHOLD CHEMICALS, INC.
Reactive Polymers Division
800 Capitola Drive
Research Triangle Park
Durham, NC 27713

ALL CHEMICAL EMERGENCIES
1-800-424-9300

SECTION V - HEALTH HAZARD DATA (cont.)

-PERMISSIBLE EXPOSURE LEVEL: (cont.)
a single STEL period must not exceed 100 ppm.

-EFFECTS OF OVEREXPOSURE:
SKIN: Prolonged or frequent contact may cause defatting and dryness of the skin with resultant irritation and possible dermatitis. Styrene may be absorbed through the skin in toxic amounts.
EYES: May cause irritation. Liquid splashes may result in more serious injuries. May cause lachrymation (tears).
INHALATION: Vapors may cause mucous membrane irritation and upper respiratory tract discomfort. High concentrations may result in headache, nausea, insensibility and other central nervous system effects. Repeated exposure to high concentrations may cause liver and kidney damage.
INGESTION: May cause gastrointestinal disturbances, pain and discomfort.

-FIRST AID:
SKIN: Wash with soap and water.
EYES: Flush with copious amounts of water for 15 minutes. Seek immediate medical aid.
INHALATION: Remove victim from exposure. If victim is unconscious, administer artificial respiration and/or oxygen as needed. Seek medical aid
INGESTION: DO NOT INDUCE VOMITING (aspiration hazard). Seek immediate medical aid.

-PRIMARY ROUTE(S) OF ENTRY:
Inhalation and Skin Absorption

-CARCINOGENICITY:
The International Agency for Research on Cancer (IARC) has classified styrene as possibly carcinogenic to humans (class 2B). The IARC 2B classification is not based on significant new evidence that styrene might be a carcinogen, but on a revised IARC classification scheme and new data on styrene oxide.

SECTION VI - REACTIVITY DATA

STABILITY: [ ] Unstable [x] Stable
HAZARDOUS POLYMERIZATION [x] May occur [ ] Will not occur

-INCOMPATIBILITY:
Strong acids and oxidizing agents.

-CONDITIONS TO AVOID:
Heat and direct sunlight

REICHHOLD

MATERIAL SAFETY DATA SHEET

REICHHOLD CHEMICALS, INC.
Reactive Polymers Division
800 Capitola Drive
Research Triangle Park
Durham, NC 27713

Information Telephone No. 919-544-9225

ALL CHEMICAL EMERGENCIES
1-800-424-9300

Product Code: 33-236-00

SECTION VI - REACTIVITY DATA (cont.)

-HAZARDOUS DECOMPOSITION PRODUCTS:
Heating of this material to decomposition may cause the emission of irritating, acrid fumes.

SECTION VII - SPILL OR LEAK PROCEDURES

-STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Remove all sources of ignition. Ventilate area. Absorb spill with an absorbent material such as sawdust, vermiculite or sand and place in a closed container. If large spill, dike the area to prevent this material from entering water systems or sewers.

-WASTE DISPOSAL METHOD:
This material has been tested and found to have a flash point below 140 F. If discarded, this material and containers should be treated as hazardous wastes based on the characteristic of ignitability as defined under the federal RCRA regulations (40 CFR 261). Disposal of this material and its container, requires compliance with applicable labeling, packaging, and record keeping standards. Extreme care should be taken to ensure that it is disposed of only in a facility permitted for disposal of hazardous wastes.

For further information, contact your state or local solid waste agency or the United States Environmental Protection Agency's RCRA hotline (1-800-424-9346 or 202-382-3000).

SECTION VIII - SPECIAL PROTECTION INFORMATION

-RESPIRATORY PROTECTION:
A canister-type respirator must be worn to prevent the inhalation of vapors or spray mists when the TLV or PEL is exceeded.

-VENTILATION:
General ventilation is required during normal use. Local ventilation may be required during certain operations to keep exposure levels below the TLV listed in Section II of this data sheet.

-PROTECTIVE GLOVES:
Wear appropriate impervious gloves to prevent skin contact.

-EYE PROTECTION:
Wear face shield or chemical goggles.

REICHHOLD

MATERIAL SAFETY DATA SHEET

REICHHOLD CHEMICALS, INC.
Reactive Polymers Division
800 Capitola Drive
Research Triangle Park
Durham, NC 27713

Information Telephone No. 919-544-9225

ALL CHEMICAL EMERGENCIES
1-800-424-9300

Product Code: 33-836-00

SECTION VIII - SPECIAL PROTECTION INFORMATION (cont.)

-OTHER PROTECTIVE EQUIPMENT:
Wear protective clothing to prevent skin contact.
Eye wash station and safety shower should be available.

SECTION IX - SPECIAL PRECAUTIONS

-PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
Avoid storage above 100 Deg. F. Avoid prolonged or repeated skin contact. Avoid inhalation of heated vapors or spray mists.
-OTHER PRECAUTIONS:
Avoid improper addition of promoter and/or catalyst. A promoter and catalyst used with this product should always be mixed separately with the product and must never be mixed together.

SECTION X - SUPPLEMENTAL INFORMATION

-REGULATORY INFORMATION:
SCAQMD Rule 1162 establishes specific process, control, housekeeping, and recordkeeping requirements for fabrication operations using polyester resin materials. It is the responsibility of the fabricator to ensure compliance with these requirements.
-SARA STATUS:
One or more of the chemical substances listed in section II of this MSDS is subject to the reporting requirements of section 313 of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR 372

This material has been categorized as having the following hazard(s) as defined by SARA Title III regulations (40 CFR 370): acute, chronic, fire, reactive.
-DOT PROPER SHIPPING NAME:
Resin Solution
-UN NUMBER:
UN1866
-DOT HAZARD CLASS:
Flammable liquid

Attachment D

VOC Emission Calculations

(1) Basic Equation For VOC Emission Calculation

$$E = \sum_{1}^{n=i} U_i \times V_i \times 112 \text{ hrs/week} \times 52 \text{ weeks/year}$$

Where: U_i = Utilization rate of material i
V_i = Percent VOC of material by weight
N = The number of different materials

(2) Calculations

Substance i = 1, Polylite Resin

E_i = 340 lb/hr x 0.45 x 112 hrs/week x 52 weeks/year

= 891,072 lb/year

= 445.5 tons/year

Substance i = 2, Gel Coat

E_2 = 62 lb/hr x 0.344 x 112 hrs/week x 52 weeks/year

= 124,214 lb/year

= 62.1 tons/year

$E = E_1 + E_2$

= 445.5 tons/year + 62.1 tons/year

= 507.6 tons/year

= 1,015,200 lb/year

= 174.3 lb/operating hour

Attachment E

Building No. 6, Fan Data

Number of fans - 7

Fan diameter - 4 feet

Height of fan discharge above grade - 2 feet

Volume of air moved per fan - 21,925 ft^3/min

Total volume of air moved - 153,475 ft^3/min

Temperature of air moved - Ambient

Velocity of air through fan - 29 ft/sec

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 ▪ FAX 377-7158

KA 412-91-01

October 4, 1991

Mr. C.H. Fancy
Florida Department of
Environmental Regulation
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Subject: Revision of Permit Application
Air Construction Permit AC09-180615

Dear Mr. Fancy:

Enclosed is a copy of Air Construction Permit Application AC09-180615, revised on October 4, 1991 and submitted on behalf of Pro-Line Boats, Inc. This application was originally submitted to the Department in May 1990 and amended and resubmitted in June 1991.

Four copies of this application are being sent to Mr. John Reynolds of your staff.

If you have any questions concerning the enclosed application, please do not hesitate to give me a call.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D., P.E.

JBK:mab

cc: Mr. John Reynolds, FDER, Tallahassee
Mr. Bill Thomas, FDER, Tampa
Mr. Cecil Davis, Pro-Line Boats, Inc.
Mr. Ralph DeMeo, Huey, Gilday, Kuersteiner et al.

A CONSTRUCTION PERMIT APPLICATION AND SUPPORTING DOCUMENTATION FOR A BOAT MANUFACTURING FACILITY

Prepared for:

PRO-LINE BOATS, INC
CRYSTAL RIVER, FLORIDA

Prepared by:

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
GAINESVILLE, FLORIDA

May 1990

Revised by:

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 N.W. 13TH STREET
GAINESVILLE, FL 32609

October 1991

Revised 10/4/91

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Revised 10/4/91

LIST OF TABLES

LIST OF FIGURES

Revised 10/4/91

1.0 INTRODUCTION

1.1 Background

Pro-Line Boats, Inc., a boat manufacturing facility located in Homosassa, Florida, has been in operation since November 1971. A map showing the location of the plant is provided as Figure 1-1.

Pro-Line Boats submitted an air pollution construction permit application to the Florida Department of Environmental Regulation (FDER) in May 1990 and amended the application in June 1991. Attached is a second amendment incorporation more reliable and updated emission factors (from AP-42) and a more representative materials use estimate (a two year summary - 5/88-4/90).

1.2 Regulatory Requirements

FDER defines "major facility" as a facility which emits or has the potential to emit 100 tons per year or more of any regulated pollutant (except lead and acrylonitrile).

Rule 17-2.500(2)(d),FAC states that PSD review applies to new major facilities that have the potential to emit greater than or equal to 250 tons per year of a regulated pollutant or 100 tons per year or more for facilities which belong to any of the facility categories listed in Table 500-1, FAC. Modification of existing major facilities are subject to PSD review if (1) the existing facility would be subject to PSD review if it

were itself a proposed new facility, and (2) the modification would result in a significant net emission increase of any regulated pollutant.

Because Pro-Line Boats began operations in November 1971 (prior to January 18, 1972), it is an existing source as defined under Rule 17-2.100(73),FAC. Potential VOC emissions from Pro-Line Boats are less than 100 tons per year based on 1988 AP-42 emission factors. Therefore, the facility is classified as a minor existing facility.

The VOCs released from the Pro-Line polyester resin (fiberglass boat building) activity are styrene and acetone. Both have a low odor threshold and are photoreactive. Currently, there are no standards for styrene or acetone emissions from such processes in the state of Florida. However, there is a FDER policy for controlling toxic emissions from stationary sources. The ambient guidelines established by the Air Toxics Policy are referred to as No Threat Levels (NTLs). An ample margin of safety is incorporated in the NTLs, making them conservative enough to protect the public from simultaneous exposures to multiple air toxics, and from additional exposures to the same toxics through other environmental pathways.

Revised 10/4/91

Figure 1-1
LOCATION OF PRO-LINE BOATS MANUFACTURING FACILITY

SOURCE: USGS, 1988.

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

2.0 FACILITY DESCRIPTION

2.1 General Description and Layout

Pro-Line Boats builds pleasure boats and components using fiberglass and polyester resin. The manufactured boat components are then coated with gel coat and acrylic paint. Generally, fabrication is conducted during the day shift and coating during the evening shift.

These operations, which release volatile organic compounds (VOCs), are performed in Building No. 1 at the Homosassa plant. Wood and cabinet works, which emit small amounts of particulate matter (PM), are also conducted in Building No. 1. Figure 2-1 displays the facility plot plan showing locations of the buildings.

2.2 Emission Points

Building No. 1 is divided into two large rooms where the fabricating and coating operations take place. Proper ventilation to meet applicable industrial hygiene standards is accomplished by suing seven large exhaust fans which draw air from the building (see Figure 2-2). The doors are left open to allow replacement air to flow into the building. The building also has eleven roof vents to aid ventilation, but the effectiveness of these openings without assistance from the fans is questionable. Chemical usages are shown in Table 2-1, and specifications of the exhaust fans are as follows:

Revised 10/4/91

Number of fans - 7

Fan Diameter - 4 feet

Height of discharge above grade - 6 feet

Volume of air moved per fan - 21,925 cubic feet/min

Temperature of air - Ambient

Exit velocity - 29 feet/sec

Wood working (cabinet shop) takes place at the northeast corner, and molding repairs are done at the southeast corner of Building No. 1. There are two canister-type dust collectors pulling air from the wood working areas. These collectors use filters which are similar to the ones used in home vacuum cleaners and are cleaned or replaced as needed (typically three times a day).

TABLE 2-1

SUMMARY OF MATERIALS USAGE

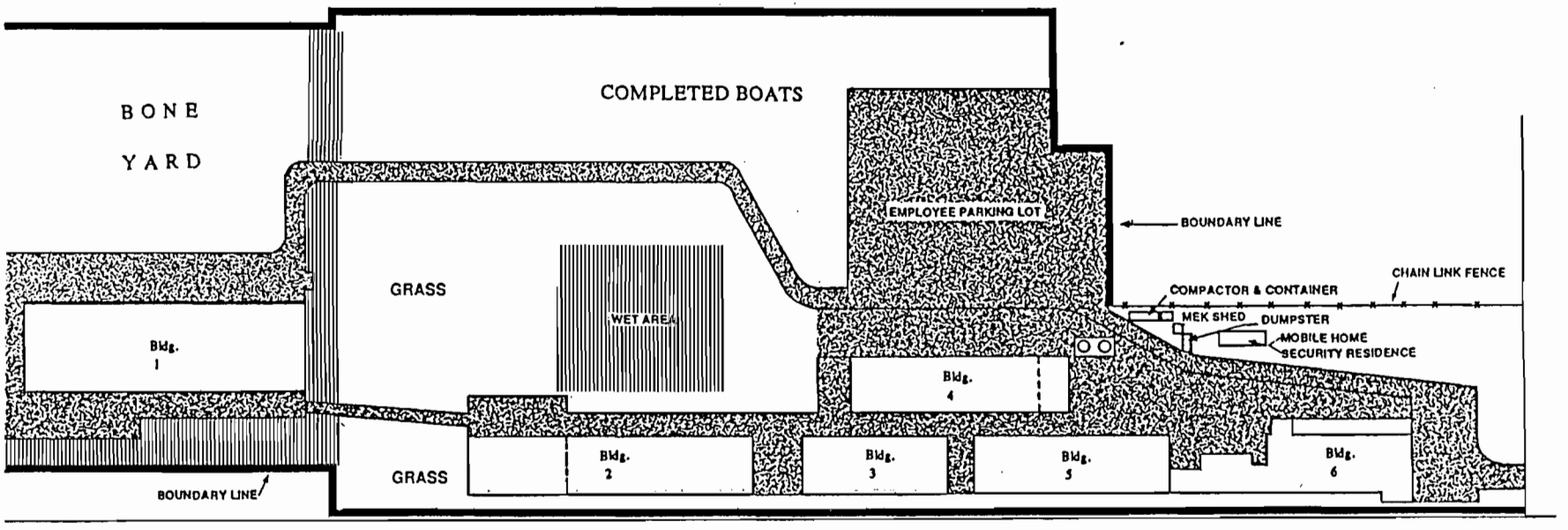
PRO-LINE BOATS, INC.
CRYSTAL RIVER, FLORIDA

Material	Reported Usage 5/88-4/89	Reported Usage 5/89-4/90	Density (lb/gal)	Avg. Annual Use(1) (tons/yr)	VOC Content (wt. fraction)
Polyester Resin	1,005,720	1,302,200 lb	9.2	577.0	0.40
Tooling Resin	13,500	12,500 lb	9.2	6.5	0.40
RESIN TOTAL				583.5	0.40
Gel-Coat	227,118	233,631 lb	10.8	115.2	0.34
Acetone	19,457	17,260 gal	6.5	59.7	1.00
Resin Stripper	100	60 gal	10.8	0.4	0.98
Foam Gun Cleaner	NR	100 gal	8.5	0.4	0.01
Lacquer Thinner	NR	75 gal(2)	6.9	0.4	1.00
Wax, Golden Liquid	352	495 gal	7.2	1.5	0.90

(1) Average over the two year period 5/88 - 4/90.

(2) Use during the 8 month period 1/90 - 8/90.

Revised 10/4/91



NO SCALE

N

KEY

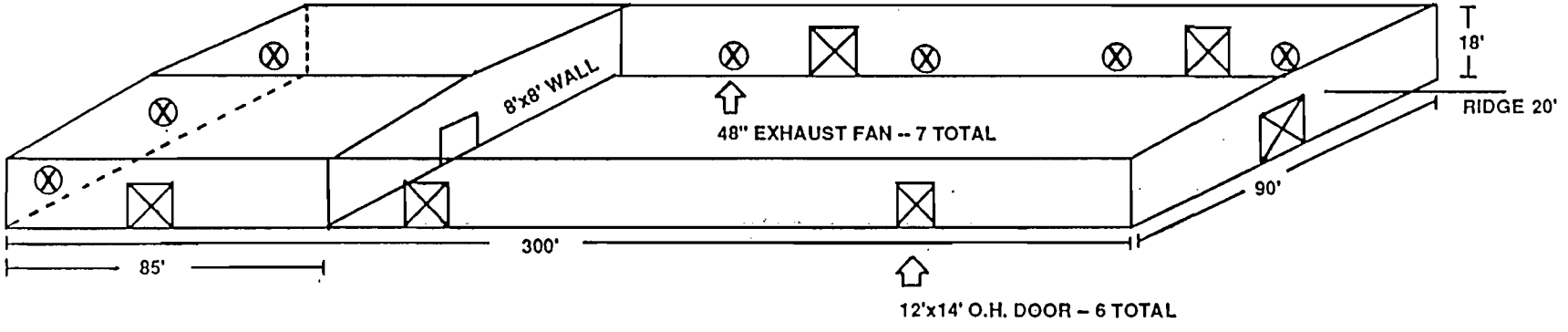
PAVED

WET AREA

Figure 2-1
PRO-LINE BOAT MANUFACTURING
FACILITIES PLOT PLAN

SOURCE: PRO-LINE BOATS, 1990.

ENVIRONMENTAL SCIENCE
& ENGINEERING, INC.



SCALE

0 5' FEET

Figure 2-2
BUILDING NO. 1
VENTILATION ARRANGEMENT

SOURCE: PRO-LINE BOATS, 1990.

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

3.0 TECHNICAL APPROACH

In 1988, VOC emission factors for fiberglass impregnation and fabrication processes were published by EPA as Section 4.12 of publication AP-42. A copy of this section is attached.

A source impact analysis was also performed to demonstrate that ambient air quality guidelines (NTLs) will not be exceeded. Dispersion modeling was performed using the latest available Industrial Source Complex (ISC) model (EPA, 1987. Section 6.0 discusses model inputs and results in detail.

Revised 10/4/91

4.12 POLYESTER RESIN PLASTICS PRODUCT FABRICATION

4.12.1 General Description[1-2]

A growing number of products are fabricated from liquid polyester resin reinforced with glass fibers and extended with various inorganic filler materials such as calcium carbonate, talc, mica or small glass spheres. These composite materials are often referred to as fiberglass reinforced plastic (FRP), or simply "fiberglass". The Society Of The Plastics Industry designates these materials as "reinforced plastics/composites" (RP/C). Also, advanced reinforced plastics products are now formulated with fibers other than glass, such as carbon, aramid and aramid/carbon hybrids. In some processes, resin products are fabricated without fibers. One major product using resins with fillers but no reinforcing fibers is the synthetic marble used in manufacturing bathroom countertops, sinks and related items. Other applications of nonreinforced resin plastics include automobile body filler, bowling balls and coatings.

Fiber reinforced plastics products have a wide range of application in industry, transportation, home and recreation. Industrial uses include storage tanks, skylights, electrical equipment, ducting, pipes, machine components, and corrosion resistant structural and process equipment. In transportation, automobile and aircraft applications are increasing rapidly. Home and recreational items include bathroom tubs and showers, boats (building and repair), surfboards and skis, helmets, swimming pools and hot tubs, and a variety of sporting goods.

The thermosetting polyester resins considered here are complex polymers resulting from the cross-linking reaction of a liquid unsaturated polyester with a vinyl type monomer, most often styrene. The unsaturated polyester is formed from the condensation reaction of an unsaturated dibasic acid or anhydride, a saturated dibasic acid or anhydride, and a polyfunctional alcohol. Table 4.12-1 lists the most common compounds used for each component of the polyester "backbone", as well as the principal cross-linking monomers. The chemical reactions that form both the unsaturated polyester and the cross-linked polyester resin are shown in Figure 4.12-1. The emission factors presented here apply to fabrication processes that use the finished liquid resins (as received by fabricators from chemical manufacturers), and not to the chemical processes used to produce these resins. (See Chapter 5, Chemical Process Industry.)

In order to be used in the fabrication of products, the liquid resin must be mixed with a catalyst to initiate polymerization into a solid thermoset. Catalyst concentrations generally range from 1 to 2 percent by original weight of resin; within certain limits, the higher the catalyst concentration, the faster the cross-linking reaction proceeds. Common catalysts are organic peroxides, typically methyl ethyl ketone peroxide or benzoyl peroxide. Resins may contain inhibitors, to avoid self curing during resin storage, and promoters, to allow polymerization to occur at lower temperatures.

TABLE 4.12-1. TYPICAL COMPONENTS OF RESINS

To Form the Unsaturated Polyester

Unsaturated Acids	Saturated Acids	Polyfunctional Alcohols
Maleic anhydride	Phthalic anhydride	Propylene glycol
Fumaric acid	Isophthalic acid	Ethylene glycol
	Adipic acid	Diethylene glycol
		Dipropylene glycol
		Neopentyl glycol
		Pentaerythritol

Cross-linking Agents (Monomers)

Styrene
Methyl methacrylate
Vinyl toluene
Vinyl acetate
Diallyl phthalate
Acrylamide
2-ethyl hexylacrylate

The polyester resin/fiberglass industry consists of many small facilities (such as boat repair and small contract firms) and relatively few large firms that consume the major fraction of the total resin. Resin usage at these operations ranges from less than 5,000 kilograms per year to over 3 million kilograms per year.

Reinforced plastics products are fabricated using any of several processes, depending on their size, shape and other desired physical characteristics. The principal processes include hand layup, spray layup (sprayup), continuous lamination, pultrusion, filament winding and various closed molding operations.

Hand layup, using primarily manual techniques combined with open molds, is the simplest of the fabrication processes. Here, the reinforcement is manually fitted to a mold wetted with catalyzed resin mix, after which it is saturated with more resin. The reinforcement is in the form of either a chopped strand mat, a woven fabric or often both. Layers of reinforcement and resin are added to build the desired laminate thickness. Squeegees, brushes and rollers are used to smooth and compact each layer as it is applied. A release agent is usually first applied to the mold to facilitate removal of the composite. This is often a wax, which can be treated with a water soluble barrier coat such as polyvinyl alcohol to promote paint adhesion on parts that are to be painted. In many operations,

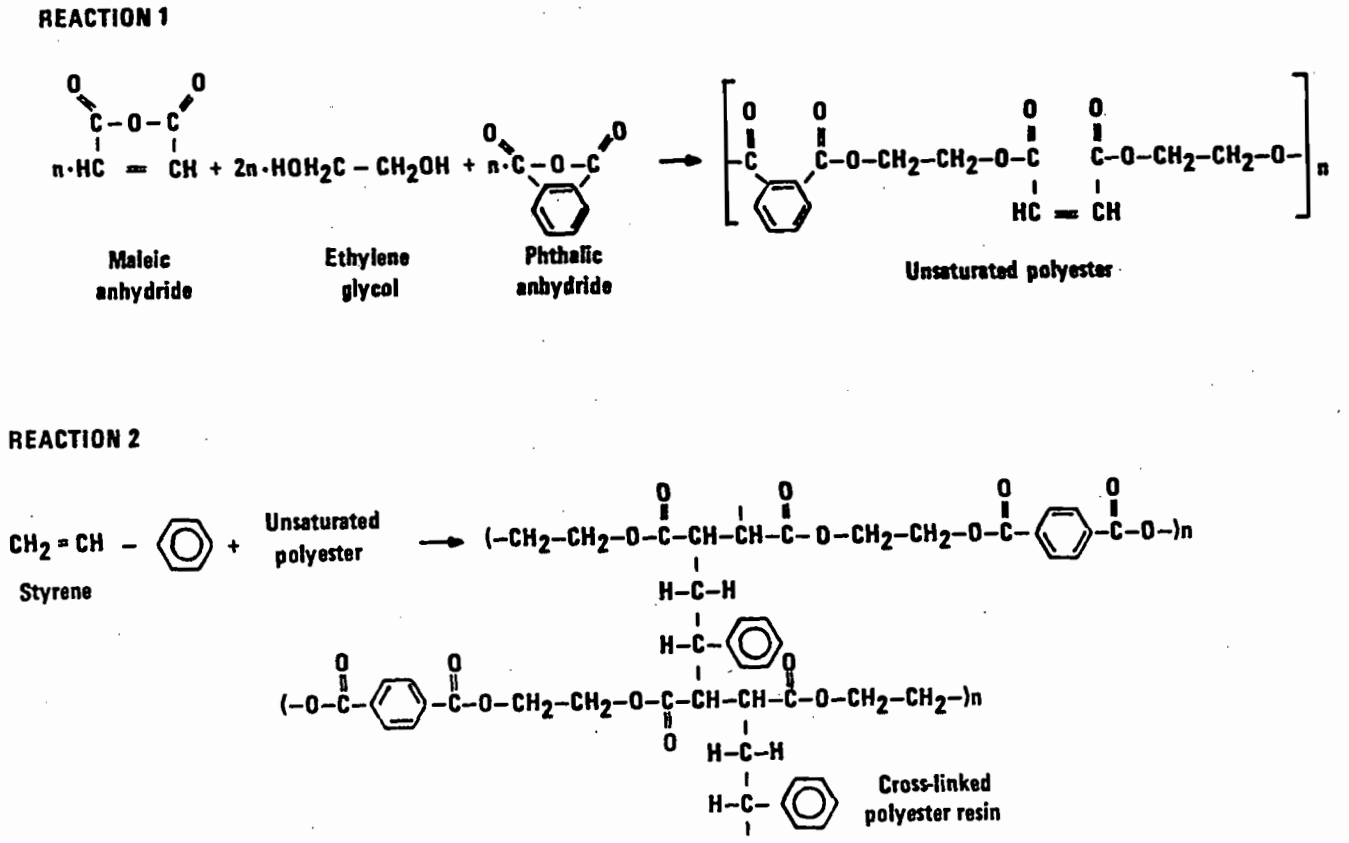


Figure 4.12-1. Typical reactions for unsaturated polyester and polyester resin formation.

the mold is first sprayed with gel coat, a clear or pigmented resin mix that forms the smooth outer surface of many products. Gel coat spray systems consist of separate sources of resin and catalyst, with an airless hand spray gun that mixes them together into an atomized resin/catalyst stream. Typical products are boat hulls and decks, swimming pools, bathtubs and showers, electrical consoles and automobile components.

Spray layup, or "sprayup", is another open mold process, differing from hand layup in that it uses mechanical spraying and chopping equipment for depositing the resin and glass reinforcement. This process allows a greater production rate and more uniform parts than does hand layup, and often uses more complex molds. As in hand layup, gel coat is frequently applied to the mold before fabrication to produce the desired surface qualities. It is common practice to combine hand layup and sprayup operations.

For the reinforced layers, a device is attached to the sprayer system to chop glass fiber "roving" (uncut fiber) into predetermined lengths and project it to merge with the resin mix stream. The stream precoats the chop, and both are deposited simultaneously to the desired layer thickness on the mold surface (or on the gel coat that was applied to the mold). Layers are built up and rolled out on the mold as necessary to form the part. Products manufactured by sprayup are similar to those made by hand layup, except that more uniform and complex parts can generally be produced more efficiently with sprayup techniques. However, compared to hand layup, more resin generally is used to produce similar parts by spray layup because of the inevitable overspray of resin during application.

Continuous lamination of reinforced plastics materials involves impregnating various reinforcements with resins on an in-line conveyor. The resulting laminate is cured and trimmed as it passes through the various conveyor zones. In this process, the resin mix is metered onto a bottom carrier film, using a blade to control thickness. This film, which defines the panel's surface, is generally polyester, cellophane or nylon, and may have a smooth, embossed or matte surface. Methyl methacrylate is sometimes used as the cross-linking agent, either alone or in combination with styrene, to increase strength and weather resistance. Chopped glass fibers free-fall into the resin mix and are allowed to saturate with resin, or "wet out". A second carrier film is applied on top of the panel before subsequent forming and curing. The cured panel is then stripped of its films, trimmed and cut to the desired length. Principal products include translucent industrial skylights and greenhouse panels, wall and ceiling liners for food areas, garage doors and cooling tower louvers. Figure 4.12-2 shows the basic elements of a continuous laminating production line.

Pultrusion, which can be thought of as extrusion by pulling, is used to produce continuous cross-sectional lineals similar to those made by extruding metals such as aluminum. Reinforcing fibers are pulled through a liquid resin mix bath and into a long machined steel die, where heat initiates an exothermic reaction to polymerize the thermosetting resin matrix. The composite profile emerges from the die as a hot, constant cross-sectional that cools sufficiently to be fed into a clamping and pulling mechanism. The product can then be cut to desired lengths. Example products include electrical insulation materials, ladders, walkway gratings, structural supports, and rods and antennas.

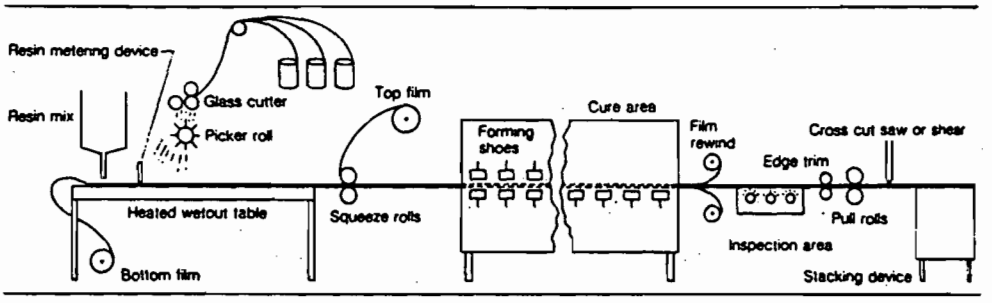


Figure 4.12-2. Typical continuous lamination production process.[2]

Filament winding is the process of laying a band of resin impregnated fibers onto a rotating mandrel surface in a precise geometric pattern, and curing them to form the product. This is an efficient method of producing cylindrical parts with optimum strength characteristics suited to the specific design and application. Glass fiber is most often used for the filament, but aramid, graphite, and sometimes boron and various metal wires may be used. The filament can be wetted during fabrication, or previously impregnated filament ("prepreg") can be used. Figure 4.12-3 shows the filament winding process, and indicates the three most common winding patterns. The process illustration depicts circumferential winding, while the two smaller pictures show helical and polar winding. The various winding patterns can be used alone or in combination to achieve the desired strength and shape characteristics. Mandrels are made of a wide variety of materials and, in some applications, remain inside the finished product as a liner or core. Example products are storage tanks, fuselages, wind turbine and helicopter blades, and tubing and pipe.

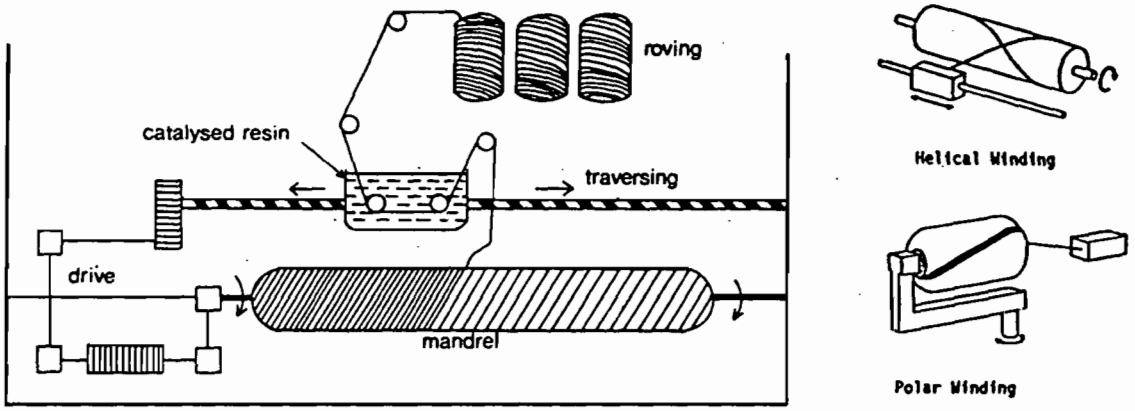


Figure 4.12-3. Typical filament winding process.[3]

Closed, such as compression or injection, molding operations involve the use of two matched dies to define the entire outer surface of the part. When closed and filled with a resin mix, the matched die mold is subjected to heat and pressure to cure the plastic. For the most durable production configuration, hardened metal dies are used (matched metal molding). Another closed molding process is vacuum or pressure bag molding. In bag molding, a hand layup or sprayup is covered with a plastic film, and vacuum or pressure is applied to rigidly define the part and improve surface quality. The range of closed molded parts includes tool and appliance housings, cookware, brackets and other small parts, and automobile body and electrical components.

Synthetic marble casting, a large segment of the resin products industry, involves production of bathroom sinks, vanity tops, bathtubs and accessories using filled resins that have the look of natural marble. No reinforcing fibers are used in these products. Pigmented or clear gel coat can either be applied to the mold itself or sprayed onto the product after casting to simulate the look of natural polished marble. Marble casting can be an open mold process, or it may be considered a semiclosed process if cast parts are removed from a closed mold for subsequent gel coat spraying.

4.12.2 Emissions And Controls

Organic vapors consisting of volatile organic compounds (VOC) are emitted from fresh resin surfaces during the fabrication process and from the use of solvents (usually acetone) for cleanup of hands, tools, molds and spraying equipment. Cleaning solvent emissions can account for over 36 percent of the total plant VOC emissions.[4] There also may be some release of particulate emissions from automatic fiber chopping equipment, but these emissions have not been quantified.

Organic vapor emissions from polyester resin/fiberglass fabrication processes occur when the cross-linking agent (monomer) contained in the liquid resin evaporates into the air during resin application and curing. Styrene, methyl methacrylate and vinyl toluene are three of the principal monomers used as cross-linking agents. Styrene is by far the most common. Other chemical components of resins are emitted only at trace levels, because they not only have low vapor pressures but also are substantially converted to polymers.[5-6]

Since emissions result from evaporation of monomer from the uncured resin, they depend upon the amount of resin surface exposed to the air and the time of exposure. Thus, the potential for emissions varies with the manner in which the resin is mixed, applied, handled and cured. These factors vary among the different fabrication processes. For example, the spray layup process has the highest potential for VOC emissions because the atomization of resin into a spray creates an extremely large surface area from which volatile monomer can evaporate. By contrast, the emission potential in synthetic marble casting and closed molding operations is considerably lower, because of the lower monomer content in the casting resins (30 to 38 percent, versus about 43 percent) and of the enclosed nature of these molding operations. It has been found that styrene

evaporation increases with increasing gel time, wind speed and ambient temperature, and that increasing the hand rolling time on a hand layup or sprayup results in significantly higher styrene losses.[1] Thus, production changes that lessen the exposure of fresh resin surfaces to the air should be effective in reducing these evaporation losses.

In addition to production changes, resin formulation can be varied to affect the VOC emission potential. In general, a resin with lower monomer content should produce lower emissions. Evaluation tests with low-styrene-emission laminating resins having a 36 percent styrene content found a 60 to 70 percent decrease in emission levels, compared to conventional resins (42 percent styrene), with no sacrifice in the physical properties of the laminate.[7] Vapor suppressing agents also are sometimes added to resins to reduce VOC emissions. Most vapor suppressants are paraffin waxes, stearates or polymers of proprietary composition, constituting up to several weight percent of the mix. Limited laboratory and field data indicate that vapor suppressing resins reduce styrene losses by 30 to 70 percent.[7-8]

Emission factors for several fabrication processes using styrene content resins have been developed from the results of facility source tests (B Rating) and laboratory tests (C Rating), and through technology transfer estimations (D Rating).[1] Industry experts also provided additional information that was used to arrive at the final factors presented in Table 4.12-2.[6] Since the styrene content varies over a range of approximately 30 to 50 weight percent, these factors are based on the quantity of styrene monomer used in the process, rather than on the total amount of resin used. The factors for vapor-suppressed resins are typically 30 to 70 percent of those for regular resins. The factors are expressed as ranges, because of the observed variability in source and laboratory test results and of the apparent sensitivity of emissions to process parameters.

Emissions should be calculated using actual resin monomer contents. When specific information about the percentage of styrene is unavailable, the representative average values in Table 4.12-3 should be used. The sample calculation illustrates the application of the emission factors.

Sample Calculation - A fiberglass boat building facility consumes an average of 250 kg per day of styrene-containing resins using a combination of hand layup (75%) and spray layup (25%) techniques. The laminating resins for hand and spray layup contain 41.0 and 42.5 weight percent, respectively, of styrene. The resin used for hand layup contains a vapor-suppressing agent.

From Table 4.12-2, the factor for hand layup using a vapor-suppresed resin is 2 - 7 (0.02 to 0.07 fraction of total styrene emitted); the factor for spray layup is 9 - 13 (0.09 to 0.13 fraction emitted). Assume the midpoints of these emission factor ranges.

Total VOC emissions are:

$$(250 \text{ kg/day})\ [(0.41)(0.045)(0.75) + (0.425)(0.11)(0.25)]$$

$$= 6.4 \text{ kg/day}.$$

TABLE 4.12-2. EMISSION FACTORS FOR UNCONTROLLED POLYESTER RESIN PRODUCT FABRICATION PROCESSES[a]
(100 x mass of VOC emitted/mass of monomer input)

Use 30.5%

Process	Resin		Emission Factor Rating	Gel Coat		Emission Factor Rating
	NVS	VS[b]		NVS	VS[b]	
Hand layup (Use 7.5%)	5 - 10	2 - 7	C	26 - 35	8 - 25	D
Spray layup (Use 11.0%)	9 - 13	3 - 9	B	26 - 35	8 - 25	B
Continuous lamination	4 - 7	1 - 5	B	c	c	--
Pultrusion[d]	4 - 7	1 - 5	D	c	c	--
Filament winding[e]	5 - 10	2 - 7	D	c	c	--
Marble casting	1 - 3	1 - 2	B	f	f	--
Closed molding[g]	1 - 3	1 - 2	D	c	c	--

[a]Reference 9. Ranges represent the variability of processes and sensitivity of emissions to process parameters. Single value factors should be selected with caution. NVS = nonvapor-suppressed resin. VS = vapor-suppressed resin.
[b]Factors are 30-70% of those for nonvapor-suppressed resins.
[c]Gel coat is not normally used in this process.
[d]Resin factors for the continuous lamination process are assumed to apply.
[e]Resin factors for the hand layup process are assumed to apply.
[f]Factors unavailable. However, when cast parts are subsequently sprayed with gel coat, hand and spray layup gel coat factors are assumed to apply.
[g]Resin factors for marble casting, a semiclosed process, are assumed to apply.

TABLE 4.12-3. TYPICAL RESIN STYRENE PERCENTAGES — Use data from MSDS

Resin Application	Resin Styrene Content[a] (wgt. %)
Hand layup	43
Spray layup	43
Continuous lamination	40
Filament winding	40
Marble casting	32
Closed molding	35
Gel coat	35

[a]May vary by at least ±5 percentage points.

Emissions from use of gel coat would be calculated in the same manner. If the monomer content of the resins were unknown, a representative value of 43 percent could be selected from Table 4.12-3 for this process combination. It should be noted that these emissions represent evaporation of styrene monomer only, and not of acetone or other solvents used for clean-up.

In addition to process changes and materials substitution, add-on control equipment can be used to reduce vapor emissions from styrene resins. However, control equipment is infrequently used at RP/C fabrication facilities, due to low exhaust VOC concentrations and the potential for contamination of adsorbent materials. Most plants use forced ventilation techniques to reduce worker exposure to styrene vapors, but vent the vapors directly to the atmosphere with no attempt at collection. At one continuous lamination facility where incineration was applied to vapors vented from the impregnation table, a 98.6 percent control efficiency was measured.[1] Carbon adsorption, absorption and condensation also have been considered for recovering styrene and other organic vapors, but these techniques have not been applied to any significant extent in this industry.

Emissions from cleanup solvents can be controlled through good housekeeping and use practices, reclamation of spent solvent, and substitution with water based solvent substitutes.

References for Section 4.12

1. M. B. Rogozen, Control Techniques for Organic Gas Emissions from Fiberglass Impregnation and Fabrication Processes, ARB/R-82/165, California Air Resources Board, Sacramento, CA, (NTIS PB82-251109), June 1982.

2. Modern Plastics Encyclopedia, 1986-1987, 63 (10A), October 1986.

3. C. A. Brighton, G. Pritchard and G. A. Skinner, Styrene Polymers: Technology and Environmental Aspects, Applied Science Publishers, Ltd., London, 1979.

4. M. Elsherif, Staff Report, Proposed Rule 1162 - Polyester Resin Operations, South Coast Air Quality Management District, Rule Development Division, El Monte, CA, January 23, 1987.

5. M. S. Crandall, Extent of Exposure to Styrene in the Reinforced Plastic Boat Making Industry, Publication No. 82-110, National Institute For Occupational Safety And Health, Cincinnati, OH, March 1982.

6. Written communication from R. C. Lepple, Aristech Chemical Corporation, Polyester Unit, Linden, NJ, to A. A. MacQueen, U.S. Environmental Protection Agency, Research Triangle Park, NC, September 16, 1987.

7. L. Walewski and S. Stockton, "Low-Styrene-Emission Laminating Resins Prove It in the Workplace", Modern Plastics, 62(8):78-80, August 1985.

8. M. J. Duffy, "Styrene Emissions - How Effective Are Suppressed Polyester Resins?", Ashland Chemical Company, Dublin, OH, presented at 34th Annual Technical Conference, Reinforced Plastics/Composites Institute, The Society Of The Plastics Industry, 1979.

9. G. A. LaFlam, Emission Factor Documentation for AP-42 Section 4.12: Polyester Resin Plastics Product Fabrication, Pacific Environmental Services, Inc., Durham, NC, November 1987.

SECTION 4.0

PERMIT APPLICATION

Revised 10/4/91

Florida Department of Environmental Regulation
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DER Form #
Form Title
Effective Date
DER Application No.
(Filled in by DER)

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Boat Manufacturing Facility [ ] New[1] [XX] Existing[1]

APPLICATION TYPE: [XX] Construction [ ] Operation [ ] Modification

COMPANY NAME: Pro-Line Boats COUNTY: Citrus

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Bldg. #6 Boat Fabrication

SOURCE LOCATION: Street 1520 South Suncoast Boulevard City Homosassa

UTM: East 346.609 km North 3191.248 km

Latitude 28 ° 50 ' 30 "N Longitude 82 ° 34 ' 20 "W

APPLICANT NAME AND TITLE: Mr. Ken Hall, President and CEO

APPLICANT ADDRESS: P.O. Box 1348, Crystal River, FL 32629

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Pro-Line Boats

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Original Application Signed by Applicant

Ken Hall, President and CEO.
Name and Title (Please Type)

Date: _____ Telephone No. (904) 795-4111

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project hav been designed/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, tha

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Northeast District
3426 Bills Rd.
Jacksonville, Florida 32207

Central District
3319 Maguire Blvd. Suite 232
Orlando, Florida 32803-3767

Southwest District
4520 Oak Fair Blvd.
Tampa, Florida 33610-7347
813-623-5561

South District
2269 Bay St.
Fort Myers, Florida 33901-2896
813-332-7667

Southeast District
1900 S. Congress Ave., Suite A
West Palm Beach, Florida 33406
407-964-9668

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed _____

John B. Koogler, Ph.D., P.E.
Name (Please Type)

Koogler & Associates, Environmental Services
Company Name (Please Type)

4014 N.W. 13th Street, Gainesville, FL 32609
Mailing Address (Please Type)

Florida Registration No. 12925 Date: 10/4/91 Telephone No. (904) 377-5822

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

See Section 1.0

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction _____ Completion of Construction _____

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

E. Requested permitted equipment operating time: hrs/day 16 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr_____; if seasonal, describe:_____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

See Section 1.2

1. Is this source in a non-attainment area for a particular pollutant? No

   a. If yes, has "offset" been applied?

   b. If yes, has "Lowest Achievable Emission Rate" been applied?

   c. If yes, list non-attainment pollutants.

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? No

   a. If yes, for what pollutants?_____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

See Table 2-1

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. **Total Process Input Rate (lbs/hr):** Not Applicable

2. **Product Weight (lbs/hr):** Not Applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
VOC (1)	32.29	94.0	NA	NA	32.29	94.0	Bldg 1-Fans
PM (1)	0.11	0.32	NA	NA	11.09	32.4	
(1) See Section 5.0 for details; including Tables 5-1 and 5-2.							

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4) None

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating. Not Applicable

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Hazardous waste is handled through FDER approved processing procedures. Non-hazardous solid waste is handled in compliance with applicable state and local regulations.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

Exhaust fan data is provided in Section 2.2.

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prbd.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

_____

_____

_____

_____

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)] N/A

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made. Section 5.0

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). Section 3.(

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map). Figures 1-1, 2-1

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram. Figure 2-2

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY Not Applicable

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION Not Applicable

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

5.0 EMISSION RATE CALCULATIONS

Potential VOC emission rates from the facility, based on material consumption rates, are estimated using the following general equation:

$$E = \sum_{1}^{n-i} (U_i \times C_i \times EF_i)$$

where E = VOC emissions, tons/year

U_i = annual usage rate of material i, tons/year (Table 2-1)

C_i = fraction of VOC in the material i, wt%/100 (Table 2-1)

EF_i = emission factor for process combination (AP-42, Sect.4-12)

n = number of different materials

Potential emission rates, as defined in the FDER permit application form, represent uncontrolled emissions. In the case of Pro-Line Boats, potential VOC emissions are equal to actual emissions. Details of the emission rates are presented in Table 5-1 and 5-2.

VOC emission factors are based upon the quantity of styrene monomer rather than the amount of resin/gel coat which can have a wide range of volatile monomer content. All of the VOC emissions from the resin and gel coat are treated as styrene which is by far the primary cross-linking agent. Release factors for acetone and other solvents are conservatively assumed as 1.0, or 100%.

Particulate emissions are calculated by using the daily sawdust production rate and assuming a control efficiency of 99.99 percent.

Revised 10/4/91

TABLE 5-1

SUMMARY OF VOC EMISSIONS

PRO-LINE BOATS, INC.
CRYSTAL RIVER, FLORIDA

Material	Annual Usage (tons/yr)	lb/hr	VOC Content (wt. fraction)	Fraction VOC Released (%)	VOC Emissions (tpy)	VOC Emissions (lb/hr)(2)
Resin						
Hand layup (67%)	390.9	133.9	0.40 vs .43 See Table 4.12-3	7.5(1)	11.7	4.02
Spray layup (33%)	192.6	66.0	0.40	11.0(1)	8.5	2.92
TOTAL	583.5					
Gel-Coat						
Hand layup (67%)	77.2	26.4	0.34	30.5(1)	8.0	2.75
Spray layup (33%)	38.0	13.0	0.34	30.5(1)	3.9	1.34
TOTAL	115.2					
Acetone	59.7		1.00	100	59.7	20.50
Resin Stripper	0.4		0.98	100	0.4	0.14
Foam Gun Cleaner	0.4		0.01	100	0.0	0.00
Lacquer Thinner	0.4		1.00	100	0.4	0.14
Wax, Golden Liquid	1.5		0.90	100	1.4	0.48
TOTAL					94.0	32.29

(1) Emission factors from AP-42, Sect. 4.12, Table 4.12-2.

(2) Based on two 8-hour shifts per day, 7 day/wk, 52 wk/yr.

Revised 10/4/91

TABLE 5-2

SUMMARY OF PARTICULATE MATTER EMISSIONS

PRO-LINE BOATS, INC.
CRYSTAL RIVER, FLORIDA

Process	Daily Output (lb/day)	Filter Efficiency (%)	Emission Rate ton/yr	Emission Rate lb/hr*
Wood Shop	177.5	99.99	0.32	0.11

*Based on 16 hours/day, 7 days/week, 52 weeks/year

SOURCE: ESE, 1991

6.0 SOURCE IMPACT ANALYSIS

For air quality modeling purposes, the areas within a 3-km radius surrounding Pro-Line Boats, Inc. would be classified as rural and as having "simple" terrain. For a modeling application of this type, Industrial Source Complex (ISC) model is considered appropriate. The ISC model is a steady-state Gaussian plume model that can be used to assess air quality impacts from a wide variety of sources. It is capable of calculating concentrations for averaging times ranging from 1-hour to annual. The latest short-term version of ISC (ISC-ST) is used for this study for the following reasons:

1. It is an EPA approved model;
2. It is generally the most commonly used model;
3. It is capable of predicting impacts from multiple sources (including stack, area, and volume sources) that are distributed over large areas;
4. It is appropriate in areas of flat or gently rolling terrain;
5. Rural or urban mode can be selected; and
6. Either cartesian or polar receptor coordinate grids can be used.

Meteorological data used in the study is 1986 surface and upper air/mixing height data from Tampa International Airport. This data was obtained from FDER and would be representative of conditions of Pro-Line Boats. Tampa

International Airport is located approximately 55 miles south of Homosassa.

A polar coordinate receptor system is used with its center at the southeast corner of Building 6. Radials are placed in 10* increments surrounding the facility. Starting from the property boundary, rings are located at 25-meter increments to 100 meters, then at 50-meter increments to 500 meters, then at 100-meter increments to 1000 meters, and finally at 1000-meter increments to 10,000 meters. Additional receptors are sited along the property boundary (fence line).

All of the vents are treated as point sources, and styrene emissions are analyzed. The regulatory default option, which is recommended by EPA, was turned on. The use of this option automatically selects appropriate wind profile exponents and other model parameters. Downwash effects are included using GEP (Version 1.21), a computer program developed by Bowman Environmental Engineering in Dallas Texas, to evaluate directional downwash.

Results of the dispersion modeling are presented in Table 6-1.

Revised 10/4/91

TABLE 6-1

SUMMARY OF HIGHEST OFF-SITE AMBIENT IMPACTS

VOC	Averaging Time	Maximum Concentration ($\mu g/m^3$)	No Threat Level ($\mu g/m^3$)	Location (meters/degrees)
Styrene	8	111	2,150	159/310
	24	38	516	159/310
Acetone	8	206	35,600	159/310
	24	70	8,544	159/310
Other	8	8	NA	159/310
	24	3	NA	159/310

Revised 10/4/91

APPENDIX A

MATERIAL SAFETY DATA SHEETS

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REICHHOLD

MATERIAL SAFETY DATA SHEET

Information Telephone No. 919-544-9225

REICHHOLD CHEMICALS, INC.
Reactive Polymers Division
800 Capitola Drive
Research Triangle Park
Durham, NC 27713

ALL CHEMICAL EMERGENCIES
1-800-424-9300

Issue Date [illegible]

SECTION I - PRODUCT IDENTIFICATION

Product Code: 33-236-10 RESIN
Trade Name: Polylite(R) 33-236-00
Product Class: Unsaturated Polyester
C.A.S. Number: Mixture

SECTION II - INGREDIENTS

Ingredients	CAS #	Weight max. %	Exposure Limits
Polyester resin	Proprietary	65.0	None assigned
Styrene Monomer	100-42-5	45.0	50.0 ppm

SECTION III - PHYSICAL DATA

Boiling Point: 295 Deg. F.
Volatile %: 35 - 45 — Use 40% VOC
Evap. Rate: Slower than n-Butyl Acetate.
Appearance: Purple opaque liquid. Pungent odor.
Vapor Density: Heavier than Air.
Specific Grav: 1.10

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class: IC   Flash Point: 89 Deg. F.   LEL: 1.1

-EXTINGUISHING MEDIA:
Water spray, foam, dry chemical, carbon dioxide or any Class B extinguishing agent.

-SPECIAL FIREFIGHTING PROCEDURES:
Firefighters and others exposed to vapors or products of combustion should wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

-UNUSUAL FIRE & EXPLOSION HAZARDS:
At elevated temperatures, such as in a fire, polymerization may take place. If polymerization takes place in a closed container, there is the possibility of violent rupture of the container. Product vapors may form an explosive mixture in air.

SECTION V - HEALTH HAZARD DATA

-PERMISSIBLE EXPOSURE LEVEL
OSHA PEL and ACGIH TLV for styrene are both 50 ppm for an 8-hour time weighted average (TWA). The OSHA and ACGIH Short Term Exposure Limits (STEL) are 100 ppm for a 15-minute period. Exposure to styrene may exceed the STEL during a 15-minute [illegible] the average for [illegible]

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Information Telephone No. 919-544-9225

ALL CHEMICAL EMERGENCIES
1-800-424-9300

Product Code 33-830-00

SECTION V - HEALTH HAZARD DATA (cont.)

-PERMISSIBLE EXPOSURE LEVEL: (cont.)
a single STEL period must not exceed 100 ppm.

-EFFECTS OF OVEREXPOSURE:
SKIN: Prolonged or frequent contact may cause defatting and dryness of the skin with resultant irritation and possible dermatitis. Styrene may be absorbed through the skin in toxic amounts.
EYES: May cause irritation. Liquid splashes may result in more serious injuries. May cause lachrymation (tears).
INHALATION: Vapors may cause mucous membrane irritation and upper respiratory tract discomfort. High concentrations may result in headache, nausea, insensibility and other central nervous system effects. Repeated exposure to high concentrations may cause liver and kidney damage.
INGESTION: May cause gastrointestinal disturbances, pain and discomfort.

-FIRST AID
SKIN: Wash with soap and water.
EYES: Flush with copious amounts of water for 15 minutes. Seek immediate medical aid.
INHALATION: Remove victim from exposure. If victim is unconscious, administer artificial respiration and/or oxygen as needed. Seek medical aid.
INGESTION: DO NOT INDUCE VOMITING (aspiration hazard). Seek immediate medical aid.

-PRIMARY ROUTE(S) OF ENTRY:
Inhalation and Skin Absorption

-CARCINOGENICITY:
The International Agency for Research on Cancer (IARC) has classified styrene as possibly carcinogenic to humans (class 2B). The IARC 2B classification is not based on significant new evidence that styrene might be a carcinogen, but on a revised IARC classification scheme and new data on styrene oxide.

SECTION VI - REACTIVITY DATA

STABILITY: [ ] Unstable [x] Stable
HAZARDOUS POLYMERIZATION: [x] May occur [ ] Will not occur

-INCOMPATIBILITY:
Strong acids and oxidizing agents.

-CONDITIONS TO AVOID:
Heat and direct sunlight

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REICHHOLD CHEMICALS, INC.
Reactive Polymers Division
800 Capitola Drive
Research Triangle Park
Durham, NC 27713

ALL CHEMICAL EMERGENCIES
1-800-424-9300

Product Code: 32-236-00

SECTION VI - REACTIVITY DATA (cont.)

-HAZARDOUS DECOMPOSITION PRODUCTS.

Heating of this material to decomposition may cause the emission of irritating, acrid fumes.

SECTION VII - SPILL OR LEAK PROCEDURES

-STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Remove all sources of ignition. Ventilate area. Absorb spill with an absorbent material such as sawdust, vermiculite or sand and place in a closed container. If large spill, dike the area to prevent this material from entering water systems or sewers.

-WASTE DISPOSAL METHOD

This material has been tested and found to have a flash point below 140 F. If discarded, this material and containers should be treated as hazardous wastes based on the characteristic of ignitability as defined under the federal RCRA regulations (40 CFR 261). Disposal of this material and its container, requires compliance with applicable labeling, packaging, and record keeping standards. Extreme care should be taken to ensure that it is disposed of only in a facility permitted for disposal of hazardous wastes.

For further information, contact your state or local solid waste agency or the United States Environmental Protection Agency's RCRA hotline (1-800-424-9346 or 202-382-3000).

SECTION VIII - SPECIAL PROTECTION INFORMATION

-RESPIRATORY PROTECTION.

A canister-type respirator must be worn to prevent the inhalation of vapors or spray mists when the TLV or PEL is exceeded.

-VENTILATION.

General ventilation is required during normal use. Local ventilation may be required during certain operations to keep exposure levels below the TLV listed in Section II of this data sheet.

-PROTECTIVE GLOVES.

Wear appropriate impervious gloves to prevent skin contact

-EYE PROTECTION.

Wear face shield or chemical goggles

REICHHOLD

MATERIAL SAFETY DATA SHEET

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Durham, NC 27713

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ALL CHEMICAL EMERGENCIES
1-800-424-9300

Product Code: 33-236-00

SECTION VIII - SPECIAL PROTECTION INFORMATION (cont.)

-OTHER PROTECTIVE EQUIPMENT:
Wear protective clothing to prevent skin contact.
Eye wash station and safety shower should be available

SECTION IX - SPECIAL PRECAUTIONS

-PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
Avoid storage above 100 Deg. F. Avoid prolonged or repeated skin contact. Avoid inhalation of heated vapors or spray mists.
-OTHER PRECAUTIONS:
Avoid improper addition of promoter and/or catalyst. A promoter and catalyst used with this product should always be mixed separately with the product and must never be mixed together.

SECTION X - SUPPLEMENTAL INFORMATION

-REGULATORY INFORMATION:
OSHA/MED Rule 1910 establishes specific process, control, housekeeping, and recordkeeping requirements for fabrication operations using polyester resin materials. It is the responsibility of the fabricator to ensure compliance with these requirements.
-SARA STATUS:
One or more of the chemical substances listed in section II of this MSDS is subject to the reporting requirements of section 313 of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR 372

This material has been categorized as having the following hazard(s) as defined by SARA Title III regulations (40 CFR 370):
acute, chronic, fire, reactive
-DOT PROPER SHIPPING NAME:
Resin Solution
-UN NUMBER:
UN1866
-DOT HAZARD CLASS:
Flammable liquid

MATERIAL SAFETY DATA SHEET

CO-PLAS INCORPORATED
5106 WHEELER AVE.
FORT SMITH, AR 72901

INFORMATION & EMERGENCY TELEPHONE NO.: 501-646-7865
CHEMTREC : 800-424-9300

PREPARATION DATE: 02/13/90 REPLACES DATE: NEW MSDS PREPARER: MGG

SECTION I - ~~PRODUCT IDENTIFICATION~~

WHITE GEL COAT

~~WG-30497~~

SECTION II - HAZARDOUS INGREDIENTS

CHEMICAL NAME	CAS NUMBER	WT. PERCENT IS LESS THAN	OCCUPATIONAL EXPOSURE LIMITS (TLV-TWA)	(TLV-STEL)	(PEL)	VAPOR PRESSURE mmHg 20C	KNOWN OR SUSPECTED CARCINOGEN	SEC 313
METHYL METHACRYLATE MONOMER	80-62-6	5%	100 PPM	75 PPM	NO INFO	29.0	NO	NO
STYRENE	100-42-5	30%	50 PPM	100 PPM	100 PPM	4.5	YES	YES
PIGMENT WHITE 6	13463-67-7	15%	10 MG/M3	NO INFO	15 MG/M3	0.0	NO	NO
SILICON DIOXIDE	7631-86-9	5%	10 MG/M3	NO INFO	20 MPPCF	0.0	NO	NO

THIS PRODUCT CONTAINS ONE OR MORE MATERIALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND THE COMMUNITY RIGHT-TO-KNOW ACTS OF 1986 AND OF 40 CFR 372.

N.A. - NOT APPLICABLE

SECTION III - PHYSICAL DATA

BOILING RANGE : 214-295 F
ODOR : AROMATIC
~~APPEARANCE~~ : WHITE LIQUID
VOLATILE BY WEIGHT: 34.4% VOC
VOLATILE BY VOLUME: 51.0%

VAPOR DENSITY : IS HEAVIER THAN AIR
EVAPORATION RATE: IS SLOWER THAN ETHER
SOLUBILITY : INSOLUBLE
PRODUCT DENSITY : 10.8 LBS./GAL. (U.S.)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION:

OSHA - FLAMMABLE LIQUID - CLASS IC
DOT - FLAMMABLE LIQUID OR SOLID

FLASH POINT: 82 F (SETAFLASH CLOSED CUP)
LEL: 1.1 %
UEL: 12.5 %

EXTINGUISHING MEDIA: CARBON DIOXIDE DRY CHEMICAL FOAM

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

UNUSUAL FIRE AND EXPLOSION HAZARDS: KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, SPARKS, AND OPEN FLAME. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT.

SPECIAL FIREFIGHTING PROCEDURES: WATER MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. USE SELF-CONTAINED BREATHING APPARATUS.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVER EXPOSURE: INHALATION: IRRITATION TO RESPIRATORY TRACT, HEADACHE, DIZZINESS AND NAUSEA. SKIN CONTACT: PRIMARY IRRITATION. EYE CONTACT: PRIMARY IRRITATION. PROLONGED OR REPEATED EXPOSURE CAN CAUSE LIVER AND KIDNEY DAMAGE AND ALLERGIC SKIN REACTION. SOME REPORTS INDICATE THAT STYRENE AND A POTENTIAL METABOLITE OF STYRENE, STYRENE OXIDE, ARE MUTAGENIC. THERE IS ALSO EVIDENCE THAT STYRENE AND ITS OXIDE CAN DAMAGE CHROMOSOMES.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: PRE-EXISTING SENSITIVITY TO SOLVENTS CAN CAUSE A HEIGHTENED REACTION TO EXPOSURE TO THIS PRODUCT.

PRIMARY ROUTE(S) OF ENTRY: INHALATION DERMAL

EMERGENCY AND FIRST AID PROCEDURES: INHALATION: REMOVE TO FRESH AIR, RESTORE BREATHING. CONSULT A PHYSICIAN. SKIN CONTACT: FLUSH WITH WATER. EYE CONTACT: FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER. CONSULT A PHYSICIAN. IF SWALLOWED, DILUTE BY GIVING 2 GLASSES OF WATER, CONSULT PHYSICIAN. DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS VICTIM.

SECTION VI - REACTIVITY DATA

STABILITY: THIS PRODUCT IS STABLE UNDER NORMAL STORAGE CONDITIONS.

HAZARDOUS POLYMERIZATION: COULD OCCUR UNDER NORMAL CONDITIONS. CARE MUST BE EXERCISED.

HAZARDOUS DECOMPOSTION PRODUCTS: ON BURNING, EMITS ACRID FUMES, CARBON DIOXIDE AND CARBON MONOXIDE.

CONDITIONS TO AVOID: HEAT AND DIRECT SUNLIGHT

INCOMPATABILITY: STRONG ACIDS, PEROXIDES AND OTHER OXIDIZING AGENTS, ORGANIC METAL SOAP.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: KEEP SPECTATORS AWAY. ELIMINATE IGNITION SOURCES. USE SELF-CONTAINED BREATHING APPARATUS (PRESSURE DEMAND, OSHA/NIOSH-APPROVED), IMPERVIOUS CLOTHING AND BOOTS. DIKE AND CONTAIN SPILL WITH SAND OR EARTH. TRANSFER LIQUID TO CONTAINERS FOR RECOVERY OR DISPOSAL AND SOLID DIKING MATERIAL TO SEPERATE CONTAINERS FOR DISPOSAL.

WASTE DISPOSAL METHOD: INCINERATE LIQUID AND CONTAMINATED DIKING MATERIAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: NONE NEEDED IF GOOD VENTILATION IS MAINTAINED. OTHERWISE WEAR SELF-CONTAINED BREATHING APPARATUS (PRESSURE DEMAND, OSHA/NIOSH APPROVED OR EQUIVALENT).

VENTILATION: SUFFICIENT VENTILATION, IN VOLUME AND PATTERN, SHOULD BE PROVIDED TO KEEP AIR CONTAMINATION BELOW CURRENT APPLICABLE OSHA PERMISSIBLE EXPOSURE LIMIT OR ACGIH'S TLV LIMIT.

PROTECTIVE GLOVES: RECOMMENDED FOR PROLONGED OR REPEATED CONTACT.

EYE PROTECTION: CHEMICAL GOGGLES WITH SIDE SHIELDS OR FACE SHIELD RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT: USE PROTECTIVE CREAMS WHERE SKIN CONTACT IS LIKELY. REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE. EYEWASH FACILITY, SAFETY SHOWER, IMPERVIOUS CLOTHING

HYGIENIC PRACTICES: WASH HANDS BEFORE EATING OR SMOKING. SMOKE IN DESIGNATED AREAS ONLY.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: STORE IN A COOL DRY AREA WITH VENTILATION SUITABLE FOR STORING MATERIALS SHOWN IN SECTION II.

OTHER PRECAUTIONS: PROVIDE RESPIRATORY PROTECTION AGAINST FUMES GENERATED DURING BURNING. PROVIDE RESPIRATORY PROTECTION AGAINST DUST CREATED BY SANDING AND/OR GRINDING OF FINISHED PARTS.

SECTION X - HMIS RATINGS

HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 2

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REICHHOLD

MATERIAL SAFETY DATA SHEET

REICHHOLD CHEMICALS, INC.
Reactive Polymers Division
800 Capitola Drive
Research Triangle Park
Durham, NC 27713

Information Telephone No. 919-544-9225

ALL CHEMICAL EMERGENCIES
1-800-424-9300

[illegible] 19 [illegible]

Safety/Environmental Manager
[illegible]-LINE BOATS INC
[illegible] SOUTH SUNCOAST BLVD

HOMOSASSA, FL 32646

Dear Customer

To ensure safe use of our products and to comply with OSHA Hazard Communication Standards, we are pleased to send you the latest Material Safety Data Sheet(s) for the following Reichhold product code(s):

33-224

This information is being forwarded to you through our computerized program which automatically generates and mails a new or revised MSDS to all purchasers of the product at the time of the first shipment.

To be sure that the enclosed MSDS(s) serves its purpose, please pass it along to all personnel who handle or use the product and to the appropriate product safety personnel.

Sincerely

Customer Service

Ashland Chemical Company
DIVISION OF ASHLAND OIL, INC.
P. O. BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333
24-HOUR EMERGENCY TELEPHONE (606) 324-1133

ACCEPTED BY O.S.H.A. AS ESSENTIALLY SIMILIAR TO O.S.H.A. FORM 20

ASHLAND PRODUCT NAME: ACETONE
CAS NUMBER: 67 64 1

HORIZON CHEMICALS & PAINTERS SUPPLY INC
14805 49TH STREET
CLEARWATER FL 33520

05 50 097 4313520-
DATA SHEET NO: 0009335-004
LATEST REVISION DATE: 04/85-8509E
PRODUCT: 3010000
INVOICE: 273551
INVOICE DATE: 03/30/85
TO:

ATTN: PLANT MGR./SAFETY DIR.

SECTION I-PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: KETONE

HAZARD CLASSIFICATION: (03) FLAMMABLE LIQUID (173.115)

SECTION II-HAZARDOUS COMPONENTS

INGREDIENT	PERCENT	PEL	TLV	
ACETONE	>95	1000	750	PPM

SECTION III-PHYSICAL DATA

PROPERTY	REFINEMENT	MEASUREMENT
INITIAL BOILING POINT	FOR PRODUCT	133.00 DEG F (56.11 DEG C) @ 760.00 MMHG
VAPOR PRESSURE	FOR PRODUCT	186.00 MMHG @ 68.00 DEG F (20.00 DEG C)
VAPOR DENSITY	AIR = 1	2.0
SPECIFIC GRAVITY	.795 - .799 @ 77.00 DEG F (25.00 DEG C)	
PERCENT VOLATILES		100.00%
EVAPORATION RATE	(N-BUTYL ACETATE = 1)	6.00

SECTION IV-FIRE AND EXPLOSION DATA

FLASH POINT(TCC) -4.00 DEG F
(-20.00 DEG C)

EXPLOSIVE LIMIT (PRODUCT) LOWER - 2.6%

EXTINGUISHING MEDIA: ALCOHOL FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS:, CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

SPECIAL FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE WHEN FIGHTING FIRES.

UNUSUAL FIRE & EXPLOSION HAZARDS: MATERIAL IS HIGHLY VOLATILE AND READILY GIVES OFF VAPORS WHICH MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY PILOT LIGHTS, OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, STATIC DISCHARGE, OR OTHER IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL 1000 PPM

THRESHOLD LIMIT VALUE 750 PPM

SEE SECTION II

EFFECTS OF OVEREXPOSURE: FOR PRODUCT

EYES - CAUSES IRRITATION, REDNESS, TEARING.
SKIN - CAN CAUSE SLIGHT IRRITATION.
BREATHING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, POSSIBLE UNCONSCIOUSNESS, AND EVEN ASPHYXIATION.
SWALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA.

FIRST AID:

CONTINUED ON PAGE: 2

Ashland Chemical Company
DIVISION OF ASHLAND OIL, INC.
P. O. BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333
24-HOUR EMERGENCY TELEPHONE (606) 324-1133

SECTION V-HEALTH HAZARD DATA (CONTINUED)

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

IF SWALLOWED: IMMEDIATELY DRINK TWO GLASSES OF WATER AND INDUCE VOMITING BY EITHER GIVING IPECAC SYRUP OR BY PLACING FINGER AT BACK OF THROAT. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

SECTION VI-REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATABILITY: AVOID CONTACT WITH:, STRONG OXIDIZING AGENTS., STRONG ALKALIES., STRONG MINERAL ACIDS.

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE, DIKE AREA OF SPILL TO PREVENT SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS.

WASTE DISPOSAL METHOD:

SMALL SPILL: ALLOW VOLATILE PORTION TO EVAPORATE IN HOOD. ALLOW SUFFICIENT TIME FOR VAPORS TO COMPLETELY CLEAR HOOD DUCT WORK. DISPOSE OF REMAINING MATERIAL IN ACCORDANCE WITH APPLICABLE REGULATIONS.

LARGE SPILL: DESTROY BY LIQUID INCINERATION. CONTAMINATED ABSORBENT MAY BE DEPOSITED IN A LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA JOINTLY APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS UNDER SPECIFIED CONDITIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS:, NATURAL RUBBER, NEOPRENE, NITRILE RUBBER

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

OVEREXPOSURE TO MATERIAL HAS APPARENTLY BEEN FOUND TO CAUSE THE FOLLOWING EFFECTS IN LABORATORY ANIMALS:, KIDNEY DAMAGE, EYE DAMAGE

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH ASHLAND OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

 LAST PAGE--SEE ATTACHMENT PAGE ENCLOSED--LAST PAGE

MATERIAL SAFETY DATA SHEET

CHARLES A.CROSBIE LABS., INC. 1821 Randolph St. L.A., CA 90001 213/582-1000

TRADE NAME: . CC-2000 & CC-2001DT COATINGS REMOVERS Eff. 3-12-86

Resin Stripper

1. PHYSICAL DATA:

BOILING POINT: 145°F	SP. GRAVITY: 1.3
VAP PRESS: 300 mm	% VOLATILE by VOLUME: 98%
VAP DENSITY: Greater than 1	EVAPORATION RATE(ether=1): Less than 1
SOL.IN WATER: Slight	ODOR: Ethereal

APPEARANCE: Gelatinous, Flocculent Liquid White to Light Yellow

2. INGREDIENTS:

Over 80% Methylene Chloride, Technical.Inasmuch as the other ingredients do not modify the information applying to Methylene Chloride, Technical, we are using the following Material Safety Data Sheet for Methylene Chloride, Technical, provided by DOW Chemical, effective 10/04/85 as the MSDS for Crosbie CC-2000 & CC-2001 DT Coatings Removers.

MATERIAL SAFETY DATA SHEET

DOW CHEMICAL U.S.A. Midland, MI 48674 Emergency Phone: 517-636-4400

MSD: 000009 Page: 1

PRODUCT NAME: METHYLENE CHLORIDE, TECHNICAL

Effective Date: 10/04/85 Date Printed:10/16/85 Product Code: 55590

1. INGREDIENTS:

Methylene Chloride	CAS# 000075-09-2	99.9

2. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: NONE	FLAMMABLE LIMITS
METHOD USED: TOC, TCC, COC	LFL: 13% @ 25C
EXTINGUISHING MEDIA: WATER FOG	UFL: 23% @ 25C

FIRE & EXPLOSION HAZARDS: Forms flammable vapor-air mixtures at temperatures above ambient. Lower temperatures increase the difficulty of getting it to ignite. Avoid open flames & welding arcs (see reactivity data).

FIRE FIGHTING EQUIPMENT: Wear positive pressure self-contained respiratory equipment.

3. REACTIVITY DATA:

STABILITY: (CONDITIONS TO AVOID) Hydrolysis producing small amounts of hydrochloric acid possible with gross water contamination.

3. REACTIVITY DATA: (CONTINUED)

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Aluminum, possibly Sodium, Potassium, Magnesium, Chromic Anhydride, Lead Perchlorate and Perchloric Acid.

HAZARDOUS DECOMPOSITION PRODUCTS: Open flames and welding arcs can cause thermal degradation with the evolution of hydrogen chloride and very small amounts of phosgene and chlorine.

HAZARDOUS POLYMERIZATION: Will not occur.

4. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS/LEAKS: Small spills: Mop up, wipe up or soak up immediately. Remove to out of doors. Large spills: Evacuate area. Contain liquid; transfer to closed metal containers. Keep out of water supply.

DISPOSAL METHOD: When disposing of the unused contents, the preferred options are to send to licensed reclaimer, permitted incinerators, or to evaporate very small quantities in compliance with local, state, and federal regulations including Subtitle C of the Resource Conservation and Recovery Act. Dumping into sewers, on the ground, or with any body of water is strongly discouraged, and may be illegal. Consult The Dow Chemical Company for further information.

5. HEALTH HAZARD DATA:

EYE: May cause moderate eye irritation and slight corneal injury. Vapors may irritate eyes. In animals, irritation and corneal injury healed primarily within 8 days.

SKIN CONTACT: Prolonged or repeated exposure may cause skin irrita tion, even a burn. Repeated contact may cause drying or flaking of skin.

SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The dermal LD50 has not been determined.

INGESTION: Single dose oral toxicity is low. The oral LD50 for rats is in the range of 1500-2500 mg/kg. If aspirated (liquid enters the lung), may be rapidly absorbed through the lungs and result in injury to other body systems.

INHALATION: Minimal anesthetic or narcotic effects may be seen in the range of 500-1000 ppm methylene chloride. Progressively higher levels over 1000 ppm can cause dizziness, drunkenness; concentrations as low as 10,000 ppm can cause unconsciousness and death. These high levels may also cause cardiac arrythmias (irregular heartbeats).

Excessive exposure may cause irritation to upper respiratory tract In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death.

SYSTEMIC & OTHER EFFECTS: Excessive exposure may cause carboxyhemoglobinemia, thereby impairing the blood's ability to transport oxygen.

5. HEALTH HAZARD DATA: (CONTINUED)

Excessive exposure may cause central nervous system, liver or kidney effects. Methylene Chloride has been shown to increase the rate of spontaneously occurring malignant tumors in one strain of laboratory mouse and benign tumors in laboratory rats. Other animal studies, as well as several human epidemiology studies, failed to show a tumorigenic response relatable to methylene chloride. Methylene Chloride is not believed to pose a measurable carcinogenic risk to man when handled as recommended. Birth defects are unlikely. Exposures having no effect on the mother should have no effect on the fetus. Did not cause birth defects in animals; other effects were seen in the fetus only at doses which caused toxic effects to the mother. In animal studies, has been shown not to interfere with reproduction. Negative or equivocal results have been obtained in mutagenicity test using mammalian cells or animals. This is consistent with the lack of interaction with DNA in rats and hamsters. Although results of Ames bacterial tests have generally been positive, overall the data suggest that genotoxic potential does not appear to be a significant factor in the toxicity of Methylene Chloride.

6. FIRST AID:

EYES: Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

SKIN: Wash off in flowing water or shower. Remove contaminated clothing and wash before reuse.

INGESTION: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.

INHALATION: Remove to fresh air. If not breathing, give mouth-to-mouth resuscitation. If breathing is difficult, give oxygen. Call a physician.

NOTE TO PHYSICIAN: Because rapid absorption may occur through lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Exposure may increase "myocardial irritability." Do not administer sympathomimetic drugs unless absolutely necessary. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

7. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINE (S): ACGIH TLV is 100 ppm. OSHA PEL is 500 ppm; ACC is 1000 ppm; MAC is 2000 ppm.

VENTILATION: Controlling airborne concentrations below the ACGIH TLV exposure guideline is recommended. Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Lethal concentrations may exist in areas with poor ventilation.

7. HANDLING PRECAUTIONS: (CONTINUED)

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. For emergency and other conditions where the exposure guideline may be greatly exceeded, use an approved positive pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved positive pressure self-contained breathing apparatus.

SKIN PROTECTION: For brief contact, no precautions other than clean body-covering clothing should be needed. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation.

EYE PROTECTION: Use safety glasses. Where contact with liquid is likely, chemical goggles are recommended because eye contact with this material may cause pain, even though it is unlikely to cause injury.

8. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Exercise reasonable care and caution. Avoid breathing vapors. Store in cool place. Concentrated vapors of this product are heavier than air and will collect in low areas such as pits, degreasers, storage tanks, and other confined areas. Do not enter these areas where vapors of this product are suspected unless special breathing apparatus is used and observer is present for assistance. Do not pressure product out of vessel or transport container with air.

MSDS STATUS: Revised 1, 3, 5, 6, 7, 8, and 9.
The Information Herein Is Given In Good Faith, No Warranty, Expressed Or Implied, Is Made. Consult The Dow Chemical Company For Further Information.

PROGRESS SALES CORPORATION
Binks/Poly-Craft Systems
1792 Northgate Blvd.
SARASOTA, FLORIDA 34234
Phone (813) 355-6627

72-62-7820-01

MATERIAL SAFETY DATA SHEET

Ashland Chemical Company
DIVISION OF ASHLAND OIL, INC.
P. O. BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333
24-HOUR EMERGENCY TELEPHONE (606) 324-1133

Ashland

004018

Gun Cleaner

DIPROPYLENE GLYCOL

.THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

****

Product Name: DIPROPYLENE GLYCOL
CAS NUMBER: 25265-71-8

Data Sheet No: 0003556-002
Prepared: 03/04/86
Supersedes: 03/06/85

05 50 093 3331750-

FOAM CRAFT, INC.
6235 S. MCINTOSH ROAD
SARASOTA FL 33583

PRODUCT: 3300000
INVOICE: 347448
INVOICE DATE: 06/02/89
TO: SAME

ATTN: PLANT MGR./SAFETY DIR.

SECTION I-PRODUCT IDENTIFICATION

General or Generic ID: GLYCOL

DOT Hazard Classification: NOT APPLICABLE

SECTION II-COMPONENTS

IF PRESENT, IARC, NTP AND OSHA CARCINOGENS AND CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 ARE IDENTIFIED IN THIS SECTION.
SEE DEFINITION PAGE FOR CLARIFICATION

INGREDIENT	% (by WT)	PEL	TLV	Note
DIPROPYLENE GLYCOL CAS #: 25265-71-8	100			(1)

Notes:

(1) PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL

SECTION III-PHYSICAL DATA

Boiling Point	for PRODUCT	432.00 - 457.00 Deg F (222.22 - 236.11 Deg C) @ 760.00 mm Hg
Vapor Pressure	for PRODUCT.	< 0.01 mm Hg @ 70.00 Deg F (21.11 Deg C)
Specific Vapor Density	AIR = 1	4.6
Specific Gravity		1.016 - 1.022 @ 77.00 Deg F (25.00 Deg C)
Percent Volatiles		<1%
Evaporation Rate	(N-BUTYL ACETATE = 1)	< .01

VOC?

SECTION IV-FIRE AND EXPLOSION INFORMATION

FLASH POINT(PMCC) 250.0 Deg F (121.1 Deg C)

EXPLOSIVE LIMIT (PRODUCT) LOWER - 2.2%

EXTINGUISHING MEDIA: ALCOHOL FOAM OR WATER FOG OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS:, CARBON DIOXIDE AND CARBON MONOXIDE, ETC.

FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE DEMAND MODE WHEN FIGHTING FIRES.

SPECIAL FIRE & EXPLOSION HAZARDS: NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

NFPA CODES: HEALTH- 0 FLAMMABILITY- 1 REACTIVITY- 0

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: NOT ESTABLISHED.

EFFECTS OF ACUTE OVEREXPOSURE: FOR PRODUCT

EYES - CAN CAUSE MODERATE IRRITATION, REDNESS, TEARING.
SKIN - MAY CAUSE IRRITATION.
BREATHING - OF MIST CAN CAUSE IRRITATION OF NASAL AND RESPIRATORY PASSAGES.
SWALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA.

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

IF SWALLOWED: IMMEDIATELY DRINK TWO GLASSES OF WATER AND INDUCE VOMITING BY EITHER GIVING IPECAC SYRUP OR BY PLACING FINGER AT BACK OF THROAT. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

CONTINUED ON PAGE: 2

Ashland Chemical Company
DIVISION OF ASHLAND OIL, INC.
P. O. BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333
24-HOUR EMERGENCY TELEPHONE (606) 324-1133

SECTION V - HEALTH HAZARD DATA (Continued)

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

EFFECTS OF CHRONIC OVEREXPOSURE: FOR PRODUCT

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS APPARENTLY BEEN FOUND TO CAUSE THE FOLLOWING EFFECTS IN LABORATORY ANIMALS:, LIVER ABNORMALITIES, KIDNEY DAMAGE

SECTION VI - REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH:, STRONG OXIDIZING AGENTS.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURED.

PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE, DIKE AREA OF SPILL TO PREVENT SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS.

WASTE DISPOSAL METHOD:

SMALL SPILL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

LARGE SPILL: CONTAMINATED ABSORBENT MAY BE DEPOSITED IN A LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII - PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF OVEREXPOSURE HAS BEEN DETERMINED OR DOCUMENTED, A NIOSH/MSHA JOINTLY APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS UNDER SPECIFIED CONDITIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW LEVEL OF OVEREXPOSURE (FROM KNOWN, SUSPECTED OR APPARENT ADVERSE EFFECTS).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER).

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

SECTION IX - SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED.SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

 LAST PAGE--SEE ATTACHMENT PAGE ENCLOSED--LAST PAGE

#3622 ALL PURPOSE LACQUER THINNER
MATERIAL SAFETY DATA SHEET

ACCEPTED BY O.S.H.A. AS ESSENTIALLY SIMILAR TO O.S.H.A. FORM 20
DATE: May 23, 1989 PREPARER'S SIGNATURE C M Mann
MANUFACTURER'S NAME: HORIZON CHEMICALS, INC. EMERGENCY PHONE #813-535-6474
14805 49TH ST. NO., CLEARWATER, FL 34622

****SECTION I PRODUCT IDENTIFICATION****

PRODUCT CODE: 3622 GENERAL OR GENERIC: Solvent Blend HAZARDOUS CLASSIFICATION: Flammable liquid NA1263

****SECTION II - HAZARDOUS COMPONENTS****

INGREDIENT	CAS#	PERCENT	TLV	LEL	VAPOR PRESSURE MM HG
Toluol	108-88-3	63.9	100	200	23
Acetone	67-64-1	18.8	750	1000	186
Isopropyl Alcohol	67-63-0	3.7	400	400	33
Methyl-2 Pentanone	108-10-1	4.2	50	100	16
Xylene	1330-20-7	8.2	100	100	5.1
Ethoxyethyl Acetate	111-15-9	1.2	5	100	2

****SECTION III - PHYSICAL DATA****

PROPERTY

BOILING POINT (estimated)(°F) 133 PERCENT, VOLATILE BY VOLUME(%) 100 SPECIFIC GRAVITY (H2O=1) .83
EVAPORATION RATE FASTER __ SLOWER X THAN ETHER VAPOR DENSITY HEAVIER X LIGHTER __, THAN AIR

****SECTION IV - FIRE AND EXPLOSION DATA****

FLASH POINT (TCC) Less than 20°F FLAMMABLE LIMITS See Sec. II EXTINGUISHING MEDIA: Alcohol foam or carbon dioxide or dry chemical

SPECIAL FIRE FIGHTING PROCEDURES: Self contained breathing apparatus with a full face piece operated in pressure - demand or other positive pressure mode.

UNUSUAL FIRE & EXPLOSION HAZARDS: Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

****SECTION V - HEALTH HAZARD DATA****

THRESHOLD LIMIT: See Section II

EFFECTS OF OVEREXPOSURE:

SKIN: Prolonged or repeated contact can cause moderate irritation, defatting, dermatitis.

BREATHING: Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation.

SWALLOWING: Can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Aspiration of materials into the lungs can cause chemical pneumonitis which can be fatal.

EMERGENCY AND FIRST AID PROCEDURES:

IF ON SKIN: Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

IF IN EYES: Flush with large amounts of water, lifting upper and lower lids occasionally, get medical attention.

IF SWALLOWED: Do not induce vomiting. Call physician or transport to an emergency facility.

IF BREATHED: If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped give artificial respiration. Keep person warm, quite and get medical attention.

****SECTION IX - SPECIAL PRECAUTIONS OR OTHER COMMENTS****

#3622

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THIS DATA SHEET MUST BE OBSERVED.

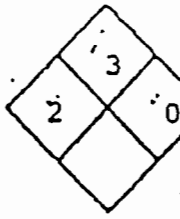
THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH HORIZON OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

****SECTION X - TOXIC CHEMICALS SARA TITLE III****

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT OF 1986 AND OF 40 CFR 372

CHEMICAL	CAS NUMBER	WEIGHT %
Toluol	108-88-3	63.9
Acetone	67-64-1	18.8
Isopropyl Alcohol	67-63-0	3.7
Methyl-2 Pentanone	108-10-1	4.2
Xylene	1330-20-7	8.2

MATERIAL SAFETY DATA SHEET



Revised August 1986

MANUFACTURER'S NAME

SPECIALTY PRODUCTS COMPANY

STREET ADDRESS

P.O. Box 306,

CITY, STATE AND ZIP CODE

Jersey City, NJ 07303

PHONE: (201) 434-4700

EMERGENCY TELEPHONE NO.

Transportation Emergencies call CHEMTREC (800) 424-9300

PRODUCT: Golden Wax Liquid

COMMON NAME: Mixture

GENERIC NAME: NA

CHEMICAL NAME: Not Applicable

CHEMICAL FAMILY: Aromatic and Aliphatic Hydrocarbon Mixture.

DOT PROPER SHIPPING NAME:

Not Applicable

WARNING STATEMENT:

Warning: Flammable

DO NOT induse vomiting if swallowed.

For industrial use only.

Section I - INGREDIENTS

	C.A.S. NUMBER		TLV*	TL
Toluene	108-88-3	Y	200A	
Xylene	1330-20-7	Y	100A	
Stoddard Solvent	8052-41-3	N	500A	
Nonane	111-84-2	N	200B	
Naphthalene	91-20-3	Y	10A	
Trimethyl Benzenes			25B	
Paraffins, Cycloparaffins & Aromatics			NE*	
Isopropanol	67-63-0	Y	400	

*Threshold Limit Value A. OSHA [X] B. ACGIH [X] C. See Section III [ ] D. Other [ ]

*Not Established

Section II -- EMERGENCY AND FIRST AID PROCEDURES

EMERGENCY: Have a physician call LOS ANGELES POISON CONTROL CENTER (24 hrs.) 213/664-2121

Eye Contact	If this product comes in contact with the eyes, flush with large quantities of water for at least 15 minutes and seek immediate medical attention.
Skin Contact	If this product comes in contact with the skin, wash with soap and large quantities of water and seek medical attention if irritation from contact persists.
Inhalation	If breathing difficulties, dizziness, or lightheadedness occur when working in areas with high vapor concentrations, victim should seek air free of vapors. If victim experiences continued breathing difficulties, administer oxygen until medical assistance can be rendered. If breathing stops, begin artificial respiration and seek immediate medical attention.
Ingestion	If this product is swallowed, DO NOT induce vomiting. Seek immediate medical advice and/or attention.

Section III -- PHYSIOLOGICAL EFFECTS AND HEALTH INFORMATION

Eye Effects	This product may be an eye irritant.
Skin Effects	This product may cause skin irritation upon prolonged or repeated contact.
Systemic Effects	Various studies have shown a possible association with exposure to this product and the following: Respiratory tract irritation Central nervous system depression in high concentrations Liver and kidney damage Brain cell damage may result from long term inhalation of toluene vapor (6/1/82)

Section VII - STORAGE AND SPECIAL PRECAUTIONS

...and ...tions	Keep product containers cool, dry and away from sources of ignition. Use and store this product with adequate ventilation (see Section IV).
Other Precautions	Personnel should avoid inhalation of vapors (see Sections I, II, III, V, VI).

Section VIII - FIRE AND EXPLOSION HAZARD DATA

DOT Flammability Classification	Flammable Liquid	Flash Point Range: ☐ Below 20° F, ☒ 20° F - 100° F ☐ 100° F - 200° F ☐ Over 200° F ☐ None to boiling
Extinguishing Media	Use foam, CO_2 or dry chemical fire fighting apparatus.	
Unusual Fire and Explosion Hazards	Keep work areas free of hot metal surfaces and other sources of ignition.	
Fire Fighting Procedures	The use of self-contained breathing apparatus is recommended for fire fighters. Water may be unsuitable as an extinguishing media, but helpful in keep adjacent containers cool. Avoid spreading burning liquid with water used for cooling purposes.	

Section IX - PHYSICAL DATA

Approximate Boiling Range, ° F	231 -310	Vapor Density: ☒ Heavier ☐ Lighter Than Air	
Evaporation Rate: ☐ Faster ☒ Slower Than Ether		Percent Volatile: 90 VOC	Solubility in Water: Negligible
Specific Gravity: ☒ Lighter ☐ Heavier Than Water		Weight per Gallon: 7.2	

Appearance and Odor:

This product is light yellow and has a characteristic odor.

Section X - DOCUMENTARY INFORMATION

Golden Wax Liquid Issue Date 5-12-86

The above information is believed to be correct as of the date hereof. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or is to be implied regarding the accuracy of these data, the results to be obtained from the use of the material, or the hazards connected with such use. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume responsibility for the results of its use. This information is furnished the condition that the person receiving it shall make his own determination as to the suitability of the material for his particular purpose and on the condition that he assume the risk of his use thereof.

Wax Liquid

Section IV - SPECIAL PROTECTION INFORMATION

...ory ...tion ...ific ...pe)	The use of respiratory protection depends on vapor concentration above the time-weighted TLV; use a NIOSH approved cartridge respirator or gas mask.
Ventilation	General mechanical ventilation may be sufficient to keep product vapor concentrations within specified time-weighted TLV ranges. If general ventilation proves inadequate to maintain safe vapor concentrations, supplemental local exhaust may be required. Other special precautions such as respiratory masks or environmental containment devices may be required in extreme cases.

Protective Gloves	The use of impermeable gloves is advised to prevent skin irritation in sensitive individuals.	Eye Protection	Safety glasses; chemical goggles and/or face shields are recommended to safeguard against potential eye contact, irritation, or injury.
Other Protective Equipment	Impermeable aprons are advised when working with this product. The availability of eye washes and safety showers in work areas is recommended.		

Section V - REACTIVITY DATA

Stability	Unstable		Conditions to Avoid:
	Stable	X	
Incompatibility (Materials to Avoid)	This product is incompatible with strong oxidizing agents, strong acids or bases, and selected amines.		
Hazardous Decomposition Products	Thermal decomposition in the presence of air may yield carbon monoxide and/or carbon dioxide.		
Hazardous Polymerization	May Occur		Conditions to Avoid:
	Will Not Occur	X	

Section VI - SPILL OR LEAK PROCEDURES

HIGHWAY OR RAILWAY SPILLS - CALL CHEMTREC 800/424-9300

Precautions In Case of Release or Spill	Keep sources of ignition and hot metal surfaces isolated from the spil Flush spilled material into suitable retaining areas or containers wit large quantities of water. Small amounts of spilled material may be absorbed into an appropriate absorbant. *
Reportable Quantity	Notify Coast Guard National Response Center; Phone No. 800-424-8802. If Spill Is Greater Than 1000 lbs (Kilograms)
Waste Disposal Method	Dispose of product in accordance with applicable local, county, state and federal regulations.

APPENDIX B

DISPERSION MODELING OUTPUT

SOURCE: ESE, 1991
REVISED 10/4/91

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                    ISCST              (DATED 90346)

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 0.35000E+03   0.40000E+03   0.45000E+03   0.50000E+03   0.60000E+03   0.70000E+03   0.80000E+03   0.90000E+03
 0.10000E+04   0.20000E+04   0.30000E+04   0.40000E+04   0.50000E+04   0.60000E+04   0.70000E+04   0.80000E+04
 0.90000E+04   0.10000E+05
 0.10000E+02   0.10000E+02
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 0.12400E+03   0.20000E+02
 0.13500E+03   0.30000E+02
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 0.18000E+03   0.50000E+02
 0.23000E+03   0.60000E+02
 0.25500E+03   0.70000E+02
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 0.39300E+03   0.90000E+02
 0.18600E+03   0.10000E+03
 0.94000E+02   0.11000E+03
 0.62000E+02   0.12000E+03
 0.49000E+02   0.13000E+03
 0.41000E+02   0.14000E+03
 0.37000E+02   0.15000E+03
 0.33000E+02   0.16000E+03
 0.24000E+02   0.17000E+03
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 0.31000E+02   0.22000E+03
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 0.17000E+03   0.32000E+03
 0.15000E+03   0.33000E+03
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 0.13200E+03   0.35000E+03
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 2 0 0 0 0  2.130E+0 -3.000E+2  4.500E+1  0.000E+0  1.830E+0  2.980E+2  8.840E+0  6.000E+0  5.490E+0  2.776E+2  2.276E+2
 0.54900E+01   0.54900E+01   0.54900E+01   0.54900E+01   0.54900E+01   0.54900E+01   0.54900E+01   0.54900E+01
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0.90000E+02  0.14073E+03  0.18718E+03  0.22794E+03  0.26178E+03  0.28766E+03  0.30481E+03  0.31269E+03
0.31107E+03  0.30000E+03  0.31107E+03  0.31269E+03  0.30481E+03  0.28766E+03  0.26178E+03  0.22794E+03
0.18718E+03  0.14073E+03  0.90000E+02  0.14073E+03  0.18718E+03  0.22794E+03  0.26178E+03  0.28766E+03
0.30481E+03  0.31269E+03  0.31107E+03  0.30000E+03
```

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)	ISW(1) = 1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)	ISW(2) = 4
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)	ISW(3) = 2
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)	ISW(4) = 0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)	ISW(5) = 0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)	ISW(6) = 1
COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)	
WITH THE FOLLOWING TIME PERIODS:	
HOURLY (YES=1,NO=0)	ISW(7) = 0
2-HOUR (YES=1,NO=0)	ISW(8) = 0
3-HOUR (YES=1,NO=0)	ISW(9) = 0
4-HOUR (YES=1,NO=0)	ISW(10) = 0
6-HOUR (YES=1,NO=0)	ISW(11) = 0
8-HOUR (YES=1,NO=0)	ISW(12) = 1
12-HOUR (YES=1,NO=0)	ISW(13) = 0
24-HOUR (YES=1,NO=0)	ISW(14) = 1
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)	ISW(15) = 1
PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE	
SPECIFIED BY ISW(7) THROUGH ISW(14):	
DAILY TABLES (YES=1,NO=0)	ISW(16) = 0
HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)	ISW(17) = 1
MAXIMUM 50 TABLES (YES=1,NO=0)	ISW(18) = 1
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)	ISW(19) = 1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)	ISW(20) = 0
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(21) = 1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(22) = 1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)	ISW(23) = 0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)	ISW(24) = 1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)	ISW(25) = 2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)	ISW(26) = 1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)	ISW(27) = 1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)	ISW(28) = 1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)	ISW(29) = 2
DEBUG OPTION CHOSEN (YES=1,NO=2)	ISW(30) = 1
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)	ISW(31) = 0
NUMBER OF INPUT SOURCES	NSOURC = 7
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP = 0
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD = 0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS = 26
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 36
NUMBER OF DISCRETE RECEPTORS	NXWYPT = 36
SOURCE EMISSION RATE UNITS CONVERSION FACTOR	TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED	ZR = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY =0.000000E+00
SURFACE STATION NO.	ISS = 12842
YEAR OF SURFACE DATA	ISY = 86
UPPER AIR STATION NO.	IUS = 12842
YEAR OF UPPER AIR DATA	IUY = 86
ALLOCATED DATA STORAGE	LIMIT =500000 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 15181 WORDS

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

*** METEOROLOGICAL DAYS TO BE PROCESSED ***
(IF=1)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 0
```

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

*** RANGES OF POLAR GRID SYSTEM ***
(METERS)

25.0, 50.0, 75.0, 100.0, 150.0, 200.0, 250.0, 300.0, 350.0, 400.0,
450.0, 500.0, 600.0, 700.0, 800.0, 900.0, 1000.0, 2000.0, 3000.0, 4000.0,
5000.0, 6000.0, 7000.0, 8000.0, 9000.0, 10000.0,

*** RADIAL ANGLES OF POLAR GRID SYSTEM ***

(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** RANGE,THETA COORDINATES OF DISCRETE RECEPTORS ***
(METERS,DEGREES)

(119.0, 10.0), (124.0, 20.0), (135.0, 30.0), (152.0, 40.0), (180.0, 50.0),
(230.0, 60.0), (255.0, 70.0), (263.0, 80.0), (393.0, 90.0), (186.0, 100.0),
(94.0, 110.0), (62.0, 120.0), (49.0, 130.0), (41.0, 140.0), (37.0, 150.0),
(33.0, 160.0), (24.0, 170.0), (23.0, 180.0), (24.0, 190.0), (25.0, 200.0),
(27.0, 210.0), (31.0, 220.0), (37.0, 230.0), (47.0, 240.0), (66.0, 250.0),
(126.0, 260.0), (122.0, 270.0), (125.0, 280.0), (130.0, 290.0), (140.0, 300.0),
(159.0, 310.0), (170.0, 320.0), (150.0, 330.0), (138.0, 340.0), (132.0, 350.0),
(129.0, 360.0), (

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	0	0	0	0.21300E+01	-300.0	10.0	0.0	1.83	298.00	8.84	6.00	-5.49	277.60	277.60
2	0	0	0	0.21300E+01	-300.0	45.0	0.0	1.83	298.00	8.84	6.00	-5.49	277.60	227.60
3	0	0	0	0.21300E+01	-300.0	75.0	0.0	1.83	298.00	8.84	6.00	-5.49	277.60	277.60
4	0	0	0	0.21300E+01	-185.0	90.0	0.0	1.83	298.00	8.84	6.00	-5.49	277.60	277.60
5	0	0	0	0.21300E+01	-135.0	90.0	0.0	1.83	298.00	8.84	6.00	-5.49	277.60	277.60
6	0	0	0	0.21300E+01	-85.0	90.0	0.0	1.83	298.00	8.84	6.00	-5.49	277.60	277.60
7	0	0	0	0.21300E+01	-45.0	90.0	0.0	1.83	298.00	8.84	6.00	-5.49	277.60	277.60

Note: Revised VOC Emissions

Styrene — 11.031b/hr or 1.39 g/s

Acetone — 20.51b/hr or 2.58 g/s

Other — 0.761b/hr or 0.10 g/s

Modeled emissions = 2.13 x 7 = 14.91 g/s

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE 1

IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW
1	5.5,	311.1,	2	5.5,	312.7,	3	5.5,	304.8,	4	5.5,	287.7,	5	5.5,	261.8,	6	5.5,	227.9,
7	5.5,	187.2,	8	5.5,	140.7,	9	5.5,	90.0,	10	5.5,	140.7,	11	5.5,	187.2,	12	5.5,	227.9,
13	5.5,	261.8,	14	5.5,	287.7,	15	5.5,	304.8,	16	5.5,	312.7,	17	5.5,	311.1,	18	5.5,	300.0,
19	5.5,	311.1,	20	5.5,	312.7,	21	5.5,	304.8,	22	5.5,	287.7,	23	5.5,	261.8,	24	5.5,	227.9,
25	5.5,	187.2,	26	5.5,	140.7,	27	5.5,	90.0,	28	5.5,	140.7,	29	5.5,	187.2,	30	5.5,	227.9,
31	5.5,	261.8,	32	5.5,	287.7,	33	5.5,	304.8,	34	5.5,	312.7,	35	5.5,	311.1,	36	5.5,	300.0,

SOURCE 2

IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW
1	5.5,	311.1,	2	5.5,	312.7,	3	5.5,	304.8,	4	5.5,	287.7,	5	5.5,	261.8,	6	5.5,	227.9,
7	5.5,	187.2,	8	5.5,	140.7,	9	5.5,	90.0,	10	5.5,	140.7,	11	5.5,	187.2,	12	5.5,	227.9,
13	5.5,	261.8,	14	5.5,	287.7,	15	5.5,	304.8,	16	5.5,	312.7,	17	5.5,	311.1,	18	5.5,	300.0,
19	5.5,	311.1,	20	5.5,	312.7,	21	5.5,	304.8,	22	5.5,	287.7,	23	5.5,	261.8,	24	5.5,	227.9,
25	5.5,	187.2,	26	5.5,	140.7,	27	5.5,	90.0,	28	5.5,	140.7,	29	5.5,	187.2,	30	5.5,	227.9,
31	5.5,	261.8,	32	5.5,	287.7,	33	5.5,	304.8,	34	5.5,	312.7,	35	5.5,	311.1,	36	5.5,	300.0,

SOURCE 3

IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW
1	5.5,	311.1,	2	5.5,	312.7,	3	5.5,	304.8,	4	5.5,	287.7,	5	5.5,	261.8,	6	5.5,	227.9,
7	5.5,	187.2,	8	5.5,	140.7,	9	5.5,	90.0,	10	5.5,	140.7,	11	5.5,	187.2,	12	5.5,	227.9,
13	5.5,	261.8,	14	5.5,	287.7,	15	5.5,	304.8,	16	5.5,	312.7,	17	5.5,	311.1,	18	5.5,	300.0,
19	5.5,	311.1,	20	5.5,	312.7,	21	5.5,	304.8,	22	5.5,	287.7,	23	5.5,	261.8,	24	5.5,	227.9,
25	5.5,	187.2,	26	5.5,	140.7,	27	5.5,	90.0,	28	5.5,	140.7,	29	5.5,	187.2,	30	5.5,	227.9,
31	5.5,	261.8,	32	5.5,	287.7,	33	5.5,	304.8,	34	5.5,	312.7,	35	5.5,	311.1,	36	5.5,	300.0,

SOURCE 4

IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW
1	5.5,	311.1,	2	5.5,	312.7,	3	5.5,	304.8,	4	5.5,	287.7,	5	5.5,	261.8,	6	5.5,	227.9,
7	5.5,	187.2,	8	5.5,	140.7,	9	5.5,	90.0,	10	5.5,	140.7,	11	5.5,	187.2,	12	5.5,	227.9,
13	5.5,	261.8,	14	5.5,	287.7,	15	5.5,	304.8,	16	5.5,	312.7,	17	5.5,	311.1,	18	5.5,	300.0,
19	5.5,	311.1,	20	5.5,	312.7,	21	5.5,	304.8,	22	5.5,	287.7,	23	5.5,	261.8,	24	5.5,	227.9,
25	5.5,	187.2,	26	5.5,	140.7,	27	5.5,	90.0,	28	5.5,	140.7,	29	5.5,	187.2,	30	5.5,	227.9,
31	5.5,	261.8,	32	5.5,	287.7,	33	5.5,	304.8,	34	5.5,	312.7,	35	5.5,	311.1,	36	5.5,	300.0,

SOURCE 5

IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW
1	5.5,	311.1,	2	5.5,	312.7,	3	5.5,	304.8,	4	5.5,	287.7,	5	5.5,	261.8,	6	5.5,	227.9,
7	5.5,	187.2,	8	5.5,	140.7,	9	5.5,	90.0,	10	5.5,	140.7,	11	5.5,	187.2,	12	5.5,	227.9,
13	5.5,	261.8,	14	5.5,	287.7,	15	5.5,	304.8,	16	5.5,	312.7,	17	5.5,	311.1,	18	5.5,	300.0,
19	5.5,	311.1,	20	5.5,	312.7,	21	5.5,	304.8,	22	5.5,	287.7,	23	5.5,	261.8,	24	5.5,	227.9,
25	5.5,	187.2,	26	5.5,	140.7,	27	5.5,	90.0,	28	5.5,	140.7,	29	5.5,	187.2,	30	5.5,	227.9,
31	5.5,	261.8,	32	5.5,	287.7,	33	5.5,	304.8,	34	5.5,	312.7,	35	5.5,	311.1,	36	5.5,	300.0,

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE 6

IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW
1	5.5,	311.1,	2	5.5,	312.7,	3	5.5,	304.8,	4	5.5,	287.7,	5	5.5,	261.8,	6	5.5,	227.9,
7	5.5,	187.2,	8	5.5,	140.7,	9	5.5,	90.0,	10	5.5,	140.7,	11	5.5,	187.2,	12	5.5,	227.9,
13	5.5,	261.8,	14	5.5,	287.7,	15	5.5,	304.8,	16	5.5,	312.7,	17	5.5,	311.1,	18	5.5,	300.0,
19	5.5,	311.1,	20	5.5,	312.7,	21	5.5,	304.8,	22	5.5,	287.7,	23	5.5,	261.8,	24	5.5,	227.9,
25	5.5,	187.2,	26	5.5,	140.7,	27	5.5,	90.0,	28	5.5,	140.7,	29	5.5,	187.2,	30	5.5,	227.9,
31	5.5,	261.8,	32	5.5,	287.7,	33	5.5,	304.8,	34	5.5,	312.7,	35	5.5,	311.1,	36	5.5,	300.0,

SOURCE 7

IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW
1	5.5,	311.1,	2	5.5,	312.7,	3	5.5,	304.8,	4	5.5,	287.7,	5	5.5,	261.8,	6	5.5,	227.9,
7	5.5,	187.2,	8	5.5,	140.7,	9	5.5,	90.0,	10	5.5,	140.7,	11	5.5,	187.2,	12	5.5,	227.9,
13	5.5,	261.8,	14	5.5,	287.7,	15	5.5,	304.8,	16	5.5,	312.7,	17	5.5,	311.1,	18	5.5,	300.0,
19	5.5,	311.1,	20	5.5,	312.7,	21	5.5,	304.8,	22	5.5,	287.7,	23	5.5,	261.8,	24	5.5,	227.9,
25	5.5,	187.2,	26	5.5,	140.7,	27	5.5,	90.0,	28	5.5,	140.7,	29	5.5,	187.2,	30	5.5,	227.9,
31	5.5,	261.8,	32	5.5,	287.7,	33	5.5,	304.8,	34	5.5,	312.7,	35	5.5,	311.1,	36	5.5,	300.0,

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 001 METERS OR THREE BUILDING HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
1	300.0	270.0	10.00
2	300.0	280.0	8.43
4	200.0	300.0	15.46
5	150.0	300.0	15.84
7	100.0	330.0	6.05
7	100.0	340.0	11.50

* CALM HOURS (=1) FOR DAY	1 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0
* CALM HOURS (=1) FOR DAY	2 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY	3 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	5 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	12 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY	13 *	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	14 *	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY	15 *	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	20 *	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY	21 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
* CALM HOURS (=1) FOR DAY	22 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY	24 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	25 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY	26 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	28 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY	29 *	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY	30 *	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	31 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY	33 *	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	38 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0
* CALM HOURS (=1) FOR DAY	39 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY	40 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
* CALM HOURS (=1) FOR DAY	44 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY	48 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY	49 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	52 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	53 *	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	54 *	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	56 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY	57 *	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	59 *	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	60 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	61 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	62 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	64 *	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
* CALM HOURS (=1) FOR DAY	65 *	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	67 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	70 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY	73 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY	74 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	76 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY	83 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	86 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
* CALM HOURS (=1) FOR DAY	87 *	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	90 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	91 *	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY	92 *	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY	93 *	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	94 *	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	96 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	97 *	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY	98 *	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	101 *	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	102 *	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY	103 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
* CALM HOURS (=1) FOR DAY	104 *	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

* CALM HOURS (=1) FOR DAY 105 *	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 108 *	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 113 *	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 114 *	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 115 *	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 116 *	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 117 *	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 118 *	1	1	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 119 *	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 120 *	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 121 *	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 123 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 127 *	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 128 *	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 129 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 131 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 132 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0
* CALM HOURS (=1) FOR DAY 135 *	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 137 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 140 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 141 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 142 *	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 143 *	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 144 *	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 145 *	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 150 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 153 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 154 *	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 155 *	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 157 *	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 158 *	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 159 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 160 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
* CALM HOURS (=1) FOR DAY 161 *	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 162 *	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 163 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
* CALM HOURS (=1) FOR DAY 164 *	0	0	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 165 *	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 166 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 168 *	0	0	0	0	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 170 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 171 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0
* CALM HOURS (=1) FOR DAY 172 *	0	0	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 173 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 174 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 175 *	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 176 *	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 177 *	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0
* CALM HOURS (=1) FOR DAY 178 *	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 179 *	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 180 *	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 181 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 188 *	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 189 *	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 190 *	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 191 *	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 193 *	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 194 *	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0
* CALM HOURS (=1) FOR DAY 195 *	1	1	0	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 196 *	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 197 *	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 198 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 199 *	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 200 *	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 203 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 204 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	1	1	1	0	0	0
* CALM HOURS (=1) FOR DAY 205 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 206 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1
* CALM HOURS (=1) FOR DAY 207 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 208 *	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 209 *	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 210 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 211 *	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 213 *	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 214 *	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 215 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0

* CALM HOURS (=1) FOR DAY 217 *	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 219 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 220 *	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 221 *	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 225 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 226 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 227 *	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 228 *	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 229 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 230 *	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 231 *	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 233 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 234 *	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0
* CALM HOURS (=1) FOR DAY 235 *	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 236 *	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 237 *	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 238 *	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 239 *	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 240 *	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0
* CALM HOURS (=1) FOR DAY 241 *	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 243 *	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 244 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	1	1	1	1
* CALM HOURS (=1) FOR DAY 245 *	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	0	0
* CALM HOURS (=1) FOR DAY 246 *	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 247 *	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 248 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 249 *	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 250 *	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 251 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 252 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 254 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1
* CALM HOURS (=1) FOR DAY 255 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 256 *	1	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	1
* CALM HOURS (=1) FOR DAY 257 *	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 264 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 265 *	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 266 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 267 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 270 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 271 *	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 274 *	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 275 *	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 276 *	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 277 *	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	0	0
* CALM HOURS (=1) FOR DAY 278 *	0	0	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 279 *	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 281 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 282 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 283 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 284 *	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 285 *	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 286 *	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 287 *	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 288 *	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 293 *	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 297 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 300 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 301 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 309 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 316 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 320 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0
* CALM HOURS (=1) FOR DAY 323 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 324 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 329 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 333 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 335 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	1	0	1	0
* CALM HOURS (=1) FOR DAY 343 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0
* CALM HOURS (=1) FOR DAY 349 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 350 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 351 *	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
* CALM HOURS (=1) FOR DAY 353 *	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 354 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 358 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 359 *	1	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 364 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* HIGHEST 8-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2602.99400 AND OCCURRED AT (75.0, 340.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 25.0	50.0	75.0	100.0	150.0
360.0 /	261.79860 (60, 2)	830.20750 (60, 2)	969.91710 (27, 2)	297.73780 (184, 2)	264.52100 (58, 2)
350.0 /	329.20350 (60, 2)	915.17100 (60, 2)	1694.27800 (27, 2)	390.65180 (208, 2)	314.92880 (58, 2)
340.0 /	433.15690 (60, 2)	441.11910 (27, 2)	2602.99400 (60, 2)	394.12840 (184, 2)	244.94450 (58, 2)
330.0 /	498.08730 (60, 2)	555.74970 (5, 2)	969.20960 (5, 2)	1105.99100 (27, 2)	288.82430 (58, 2)
320.0 /	464.49740 (60, 2)	709.21660 (60, 2)	992.35580 (60, 2)	1989.08100 (27, 2)	348.98210 (58, 2)
310.0 /	348.53920 (60, 2)	360.23610 (60, 2)	399.81080 (27, 2)	1123.65500 (5, 2)	521.61880 (208, 2)
300.0 /	234.86440 (5, 2)	244.94030 (27, 2)	541.69200 (5, 2)	535.58960 (60, 2)	459.95450 (27, 2)
290.0 /	223.22490 (80, 2)	288.32970 (60, 2)	467.05870 (60, 2)	255.00030 (60, 2)	725.90390 (60, 2)
280.0 /	233.23460 (80, 2)	323.46390 (60, 2)	194.69000 (80, 2)	265.97740 (60, 2)	227.47000 (11, 1)
270.0 /	228.70900 (80, 2)	288.10940 (5, 2)	205.97250 (80, 2)	288.03520 (5, 2)	288.03370 (5, 2)
260.0 /	218.21240 (80, 2)	253.96350 (5, 2)	183.06510 (60, 2)	211.46590 (5, 2)	213.72030 (27, 2)
250.0 /	206.91910 (80, 2)	224.29460 (5, 2)	170.71640 (60, 2)	156.89350 (5, 2)	124.80910 (112, 2)
240.0 /	197.40780 (80, 2)	204.70790 (5, 2)	141.72100 (80, 2)	135.11610 (80, 2)	136.76000 (112, 2)
230.0 /	187.65600 (80, 2)	186.46110 (5, 2)	131.93570 (80, 2)	123.64250 (80, 2)	136.05280 (112, 2)
220.0 /	178.76870 (80, 2)	165.34860 (5, 2)	127.77390 (80, 2)	117.54700 (65, 2)	129.38480 (112, 2)
210.0 /	170.17040 (80, 2)	143.89670 (80, 2)	124.70180 (80, 2)	121.13230 (112, 2)	123.88380 (112, 2)
200.0 /	180.87750 (5, 2)	133.55970 (80, 2)	122.25330 (80, 2)	123.45310 (112, 2)	122.77310 (112, 2)
190.0 /	203.23940 (5, 2)	129.32320 (60, 2)	115.68640 (80, 2)	122.69810 (112, 2)	127.19050 (112, 2)
180.0 /	206.86000 (5, 2)	129.27670 (60, 2)	117.62830 (112, 2)	121.81800 (112, 2)	134.05170 (112, 2)
170.0 /	184.65650 (5, 2)	142.79750 (5, 2)	121.08170 (112, 2)	122.25930 (112, 2)	134.56300 (112, 2)
160.0 /	159.90900 (112, 2)	142.04980 (112, 2)	128.58720 (112, 2)	124.30650 (112, 2)	130.01160 (112, 2)
150.0 /	181.33850 (60, 2)	153.44410 (112, 2)	142.53540 (112, 2)	134.50630 (112, 2)	128.92400 (112, 2)
140.0 /	204.41470 (60, 2)	160.10510 (112, 2)	154.60810 (112, 2)	148.33110 (112, 2)	137.65570 (112, 2)
130.0 /	219.28040 (60, 2)	166.17370 (112, 2)	165.56440 (112, 2)	160.20740 (112, 2)	143.43100 (112, 2)
120.0 /	220.98970 (60, 2)	174.76970 (112, 2)	171.14610 (112, 2)	158.63300 (112, 2)	140.00820 (65, 2)
110.0 /	213.43560 (60, 2)	189.81590 (60, 2)	172.09670 (60, 2)	147.65780 (112, 2)	154.64120 (65, 2)
100.0 /	207.10250 (60, 2)	229.51830 (60, 2)	165.47950 (27, 2)	169.61780 (65, 2)	181.61340 (65, 2)
90.0 /	211.92200 (60, 2)	239.66120 (60, 2)	199.65490 (27, 2)	194.74880 (65, 2)	195.72710 (106, 2)
80.0 /	230.39260 (60, 2)	213.35370 (27, 2)	239.48900 (27, 2)	211.77530 (27, 2)	211.22700 (19, 2)
70.0 /	258.86130 (60, 2)	250.43370 (27, 2)	280.72140 (27, 2)	237.89290 (19, 2)	226.09770 (19, 2)
60.0 /	290.34440 (60, 2)	296.62300 (27, 2)	314.37860 (27, 2)	269.05250 (19, 2)	311.69060 (184, 2)
50.0 /	317.62680 (60, 2)	349.01170 (27, 2)	341.64200 (27, 2)	347.31950 (27, 2)	363.64910 (184, 2)
40.0 /	333.09760 (60, 2)	406.28150 (27, 2)	397.49070 (27, 2)	340.52010 (184, 2)	218.39920 (184, 2)
30.0 /	328.15080 (60, 2)	465.26060 (27, 2)	504.19740 (27, 2)	449.01910 (184, 2)	194.64340 (192, 2)
20.0 /	298.84190 (60, 2)	513.57960 (27, 2)	644.74070 (27, 2)	454.33390 (184, 2)	204.12850 (58, 2)
10.0 /	262.02960 (60, 2)	524.37870 (27, 2)	796.76900 (27, 2)	363.97190 (184, 2)	327.01350 (58, 2)

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* HIGHEST 8-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2602.99400 AND OCCURRED AT (75.0, 340.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 200.0	250.0	300.0	350.0	400.0
360.0 /	248.18770 (58, 2)	168.56240 (58, 2)	101.95630 (79, 2)	95.83265 (79, 2)	91.51348 (79, 2)
350.0 /	226.51660 (58, 2)	126.75340 (79, 2)	107.10100 (79, 2)	106.25780 (79, 2)	104.30130 (79, 2)
340.0 /	222.11110 (58, 2)	114.16700 (79, 2)	91.23466 (79, 2)	97.35930 (78, 2)	98.23174 (210, 2)
330.0 /	232.40030 (58, 2)	99.51912 (73, 2)	119.52930 (78, 2)	98.80344 (78, 2)	122.63500 (79, 2)
320.0 /	235.33250 (73, 2)	128.89160 (72, 2)	145.36650 (72, 2)	149.95010 (78, 2)	106.16170 (79, 2)
310.0 /	218.67740 (58, 2)	129.74680 (72, 2)	162.38390 (72, 2)	147.52930 (79, 2)	154.29530 (72, 2)
300.0 /	148.97110 (58, 2)	204.07370 (58, 2)	177.38390 (78, 2)	123.33120 (68, 2)	129.78360 (68, 2)
290.0 /	793.30640 (11, 1)	279.77540 (154, 2)	422.18720 (78, 2)	136.01710C(244, 3)	145.79630 (72, 2)
280.0 /	333.30220 (8, 2)	700.46440 (27, 2)	577.79720 (80, 2)	241.64940 (318, 2)	215.48540 (318, 2)
270.0 /	413.76150 (27, 2)	734.00830 (27, 2)	206.42690 (80, 1)	429.46230 (8, 2)	232.80890 (318, 2)
260.0 /	260.27660 (60, 2)	679.57950 (60, 2)	213.23000 (11, 1)	175.48520 (8, 2)	287.15780 (8, 2)
250.0 /	194.15530 (60, 2)	221.15550 (80, 2)	132.26320 (80, 2)	126.33090 (11, 1)	134.04040 (340, 2)
240.0 /	159.05120 (60, 2)	134.50860 (80, 2)	95.67581 (317, 3)	100.47840 (290, 2)	108.30720 (317, 3)
230.0 /	122.65500 (60, 2)	97.74564 (80, 2)	115.31660 (5, 2)	75.40804 (87, 2)	87.56219 (290, 2)
220.0 /	106.45520 (112, 2)	80.38080 (80, 2)	104.12590 (5, 2)	59.01408 (46, 2)	63.80115 (87, 2)
210.0 /	101.85220 (112, 2)	70.93475 (80, 2)	60.63285 (319, 2)	81.33456 (5, 2)	64.48605 (11, 2)
200.0 /	98.67555 (112, 2)	85.17983 (112, 2)	72.30603 (46, 2)	67.89987 (319, 2)	89.27420 (5, 2)
190.0 /	99.89925 (112, 2)	90.85093 (112, 2)	80.34959 (337, 2)	82.22020 (46, 2)	71.31915 (319, 2)
180.0 /	109.93600 (112, 2)	88.69033 (112, 2)	84.55457 (112, 2)	81.45300 (337, 2)	84.26559 (46, 2)
170.0 /	126.57200 (112, 2)	99.59311 (112, 2)	84.18124 (46, 2)	80.08458 (46, 2)	75.47641 (46, 2)
160.0 /	134.41110 (112, 2)	122.79160 (112, 2)	101.26070 (112, 2)	81.98647 (112, 2)	69.68324 (112, 2)
150.0 /	131.20770 (112, 2)	131.09520 (112, 2)	123.26770 (112, 2)	110.49220 (112, 2)	96.37548 (112, 2)
140.0 /	131.07690 (112, 2)	127.26340 (112, 2)	121.96690 (112, 2)	114.45880 (112, 2)	105.69570 (112, 2)
130.0 /	133.94730 (65, 2)	120.77020 (65, 2)	103.91710 (112, 2)	93.88581 (112, 2)	91.53261 (200, 3)
120.0 /	147.88200 (65, 2)	151.15590 (65, 2)	149.91550 (65, 2)	144.89380 (65, 2)	137.47180 (65, 2)
110.0 /	162.65680 (65, 2)	163.69060 (65, 2)	161.34550 (65, 2)	156.28620 (65, 2)	150.00920 (65, 2)
100.0 /	178.32140 (65, 2)	174.31920 (65, 2)	166.67080 (65, 2)	152.28000 (65, 2)	134.12950 (65, 2)
90.0 /	175.68710 (106, 2)	169.25070 (19, 2)	165.10400 (19, 2)	159.97870 (19, 2)	160.38990 (358, 2)
80.0 /	201.69140 (19, 2)	200.93880 (99, 1)	196.89110 (99, 1)	196.16510 (184, 2)	198.16410 (184, 2)
70.0 /	259.83000 (184, 2)	284.05950 (184, 2)	255.43860 (184, 2)	207.28800 (184, 2)	164.55710 (62, 2)
60.0 /	310.51600 (184, 2)	194.01020 (62, 2)	159.39320 (62, 2)	136.49350 (192, 2)	129.65690 (192, 2)
50.0 /	182.03810 (98, 2)	174.09270 (192, 2)	157.72590 (192, 2)	132.18740 (115, 2)	123.29450 (58, 2)
40.0 /	189.12400 (192, 2)	155.05540 (115, 2)	186.32680 (58, 2)	205.10720 (58, 2)	212.31750 (58, 2)
30.0 /	207.63820 (58, 2)	247.01060 (58, 2)	250.58410 (58, 2)	229.76420 (58, 2)	195.46610 (58, 2)
20.0 /	295.24820 (58, 2)	261.68520 (58, 2)	209.68560 (58, 2)	158.53470 (58, 2)	112.11220 (58, 2)
10.0 /	278.90300 (58, 2)	215.57550 (58, 2)	148.05650 (58, 2)	88.45246 (58, 2)	88.19265 (35, 2)

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* HIGHEST 8-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2602.99400 AND OCCURRED AT (75.0, 340.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 450.0	500.0	600.0	700.0	800.0
360.0 /	96.05589 (79, 2)	100.28150 (79, 2)	105.29170 (79, 2)	98.63767 (79, 2)	85.42078 (79, 2)
350.0 /	112.61810 (79, 2)	116.30870 (79, 2)	111.53010 (79, 2)	96.94276 (37, 2)	81.61640 (345, 2)
340.0 /	112.02750 (79, 2)	123.51620 (79, 2)	80.17091 (75, 2)	87.60834 (334, 2)	78.52106 (232, 3)
330.0 /	107.24100 (79, 2)	83.92004 (75, 2)	82.72942 (75, 2)	85.57594 (73, 1)	84.25201 (73, 1)
320.0 /	79.84401 (148, 2)	80.94706 (72, 2)	96.48383 (72, 2)	94.22305 (73, 1)	82.40976 (215, 1)
310.0 /	178.47500 (72, 2)	143.54060 (72, 2)	139.77310 (72, 1)	142.09640 (72, 1)	136.53070 (72, 1)
300.0 /	131.73420 (68, 2)	136.20360 (68, 2)	137.57340 (68, 2)	142.24950 (328, 2)	135.73970 (328, 2)
290.0 /	158.21420 (147, 2)	168.15970 (147, 2)	157.84600 (147, 2)	135.93290 (147, 2)	110.90970 (147, 2)
280.0 /	198.43250 (314, 2)	194.49080 (314, 2)	167.35950 (314, 2)	167.83270 (94, 3)	162.76990 (94, 3)
270.0 /	244.60790 (318, 2)	243.33350 (318, 2)	215.51850 (318, 2)	182.80860 (318, 2)	169.54160 (314, 2)
260.0 /	239.19140 (340, 2)	209.28660 (130, 2)	163.70680 (89, 2)	140.92150 (258, 2)	133.44420 (356, 3)
250.0 /	160.00070 (317, 3)	198.82030 (340, 2)	214.57270 (340, 2)	224.63810 (318, 1)	216.27380 (318, 1)
240.0 /	116.24630 (317, 3)	128.35810 (290, 2)	159.31610 (290, 2)	154.88880 (317, 3)	148.42860 (340, 2)
230.0 /	95.68681 (290, 2)	100.12200 (290, 2)	111.29300 (301, 2)	140.04090 (301, 2)	139.67150 (301, 2)
220.0 /	69.60345 (87, 2)	72.74197 (11, 2)	81.65134 (301, 2)	92.18533 (301, 2)	99.12752 (301, 2)
210.0 /	63.70059 (11, 2)	59.70481 (11, 2)	70.33123 (11, 2)	75.81072 (11, 2)	64.74770 (11, 2)
200.0 /	72.29071 (5, 2)	69.50856 (11, 2)	64.94099 (11, 2)	58.55653 (11, 2)	58.07943 (11, 2)
190.0 /	75.48105 (5, 2)	92.94138 (5, 2)	68.09253 (5, 2)	54.44212C(103, 3)	60.98485C(150, 3)
180.0 /	81.78275 (46, 2)	73.02814C(127, 3)	78.70113 (5, 2)	90.08131 (5, 2)	78.91692 (5, 2)
170.0 /	78.87802 (337, 2)	79.83757 (5, 2)	78.34121 (5, 2)	76.94688C(127, 3)	76.26482 (5, 2)
160.0 /	65.96863 (46, 2)	61.82749 (13, 2)	64.05393 (337, 2)	62.10598 (337, 2)	57.34191 (5, 2)
150.0 /	83.29427 (112, 2)	72.29274 (112, 2)	60.96636 (103, 2)	64.67288C(227, 3)	64.72588C(284, 3)
140.0 /	96.50711 (112, 2)	87.49656 (112, 2)	75.41513 (103, 2)	77.50204C(278, 3)	76.54042C(278, 3)
130.0 /	93.12605 (200, 3)	91.53719 (200, 3)	85.74613 (200, 3)	86.98016C(141, 3)	90.24913C(141, 3)
120.0 /	128.81970 (65, 2)	119.78750 (65, 2)	106.86880C(229, 3)	106.61610C(229, 3)	106.04580 (200, 3)
110.0 /	143.28920 (65, 2)	136.46190 (65, 2)	123.42890C(229, 3)	133.96970C(229, 3)	139.88260C(229, 3)
100.0 /	120.89450 (229, 2)	113.95660 (229, 2)	112.52830C(160, 3)	110.61640C(160, 3)	109.53510C(226, 3)
90.0 /	163.82560 (358, 2)	163.29170 (358, 2)	153.84900 (358, 2)	138.65630 (358, 2)	122.27400 (358, 2)
80.0 /	192.72100 (184, 2)	182.29690 (184, 2)	155.00810 (184, 2)	127.64400 (184, 2)	104.14920 (184, 2)
70.0 /	146.35680 (62, 2)	127.01170 (62, 2)	136.04780 (183, 1)	132.58640 (183, 1)	120.50030 (183, 1)
60.0 /	118.15820 (192, 2)	126.09570 (184, 1)	153.68340 (184, 1)	166.83440 (184, 1)	170.69370 (184, 1)
50.0 /	135.63300 (58, 2)	143.02990 (58, 2)	144.41930 (58, 2)	134.75890 (58, 2)	121.73610 (58, 2)
40.0 /	206.03850 (58, 2)	191.79790 (58, 2)	155.62540 (58, 2)	121.10890 (58, 2)	95.66986 (321, 3)
30.0 /	159.02670 (58, 2)	125.86390 (58, 2)	75.58253 (58, 2)	78.18176C(324, 3)	80.16616C(324, 3)
20.0 /	87.25268 (63, 2)	86.47449 (63, 2)	72.97225 (63, 2)	87.34008 (203, 1)	106.72120 (203, 1)
10.0 /	91.08692 (35, 2)	88.12215 (35, 2)	96.87102 (210, 3)	106.70270 (210, 3)	92.06796 (210, 3)

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* HIGHEST 8-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2602.99400 AND OCCURRED AT (75.0, 340.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 900.0	1000.0	2000.0	3000.0	4000.0
360.0 /	74.72575 (10, 3)	75.67863 (330, 3)	52.98735 (159, 3)	49.17126 (110, 3)	39.57549 (110, 3)
350.0 /	77.33337 (345, 2)	71.65424 (185, 3)	56.60619 (159, 3)	47.18876C(204, 3)	48.16026C(204, 3)
340.0 /	89.75096 (232, 3)	98.37396 (232, 3)	110.68050 (232, 3)	91.44633 (232, 3)	70.96223C(180, 1)
330.0 /	90.39701 (73, 1)	113.35780 (232, 3)	115.24410C(164, 1)	78.84008 (151, 1)	75.94732 (151, 1)
320.0 /	98.14356 (215, 1)	107.31470 (215, 1)	87.78739 (215, 1)	81.00508 (139, 1)	67.15086 (139, 1)
310.0 /	132.39730 (72, 1)	131.02930 (72, 1)	119.52120C(241, 1)	90.79753C(241, 1)	65.89067 (160, 1)
300.0 /	122.97350 (77, 3)	120.28470 (169, 3)	139.37790 (272, 3)	136.78310 (272, 3)	116.05490 (272, 3)
290.0 /	121.09980 (333, 1)	130.62100 (333, 1)	184.63900C(257, 1)	167.46210C(257, 1)	139.36180C(257, 1)
280.0 /	148.64410 (94, 3)	146.46730 (311, 3)	124.13280 (271, 3)	113.89780 (187, 1)	93.91939 (187, 1)
270.0 /	166.53660 (314, 2)	155.83240 (314, 2)	89.83363C(251, 3)	80.28448 (312, 1)	66.94091 (312, 1)
260.0 /	139.12090 (356, 3)	136.69460 (356, 3)	204.01840 (242, 3)	203.80720 (242, 3)	158.63990 (242, 3)
250.0 /	191.25630 (318, 1)	163.05430 (318, 1)	176.34550 (259, 1)	164.57860 (261, 3)	146.96870 (263, 1)
240.0 /	141.24640 (340, 2)	125.16300 (340, 2)	121.76790 (156, 1)	105.26180 (156, 1)	79.31081 (156, 1)
230.0 /	119.61790 (301, 2)	106.62440 (339, 2)	114.93110C(247, 1)	63.76619 (279, 3)	66.95425 (261, 1)
220.0 /	105.64520 (301, 2)	111.34470 (301, 2)	57.33707 (301, 2)	55.16039 (290, 3)	65.23892 (290, 3)
210.0 /	56.50639 (306, 2)	62.45598 (306, 2)	54.22020C(276, 3)	51.66529C(254, 3)	43.90739C(254, 3)
200.0 /	58.34358 (11, 2)	56.65963 (11, 2)	50.66875 (294, 3)	39.53628 (294, 3)	28.41522C(213, 3)
190.0 /	68.34311C(150, 3)	65.57456C(150, 3)	72.05035 (331, 3)	50.93455 (331, 3)	43.10300 (331, 3)
180.0 /	60.57211 (5, 2)	54.06236C(103, 3)	45.43045C(323, 3)	41.58775C(195, 3)	36.30534C(195, 3)
170.0 /	78.52825 (5, 2)	79.85038 (5, 2)	54.92005 (279, 3)	51.75228 (279, 3)	44.46990 (279, 3)
160.0 /	57.80491C(127, 3)	59.37978C(127, 3)	42.27518 (5, 2)	41.02429C(284, 3)	41.08396C(284, 3)
150.0 /	64.64324C(127, 3)	65.69833C(127, 3)	61.35101C(127, 3)	50.12560C(127, 3)	45.72620C(255, 3)
140.0 /	79.56230C(284, 3)	84.44707C(284, 3)	104.15170C(284, 3)	86.68448C(284, 3)	67.95139C(284, 3)
130.0 /	93.04232C(141, 3)	95.46288C(141, 3)	102.94750C(141, 3)	89.12946C(141, 3)	73.46628C(141, 3)
120.0 /	106.47440 (200, 3)	104.07300 (200, 3)	78.50517 (201, 1)	70.24855 (201, 1)	58.52370 (201, 1)
110.0 /	142.05060C(229, 3)	141.47570C(229, 3)	105.59560C(229, 3)	87.77733C(228, 1)	70.89468C(228, 1)
100.0 /	115.43580C(226, 3)	118.35950C(226, 3)	87.57686C(226, 3)	62.93793 (112, 1)	58.74291 (112, 1)
90.0 /	106.89060 (358, 2)	93.40758 (358, 2)	75.63696 (202, 1)	59.02479C(213, 1)	54.37437C(213, 1)
80.0 /	85.21421 (184, 2)	80.38486 (212, 1)	83.62796C(282, 3)	67.73370 (183, 1)	55.58124 (183, 1)
70.0 /	109.96950 (183, 1)	103.63820 (183, 1)	94.47199 (184, 1)	76.44528C(228, 1)	64.49637C(228, 1)
60.0 /	168.01930 (184, 1)	159.20920 (184, 1)	131.45970 (192, 1)	117.83660 (192, 1)	93.63077 (192, 1)
50.0 /	108.41980 (58, 2)	112.85380 (322, 1)	110.65690 (190, 3)	104.36340 (190, 3)	73.68916 (190, 3)
40.0 /	93.92584 (321, 3)	86.77008 (321, 3)	89.15606C(324, 3)	68.31136C(231, 1)	78.01041C(231, 1)
30.0 /	86.94115C(159, 1)	96.84313C(159, 1)	112.60090 (203, 1)	62.91274 (323, 1)	48.51109 (58, 1)
20.0 /	115.36050 (203, 1)	113.13340 (210, 3)	56.45958 (225, 3)	42.18087 (42, 1)	32.43447 (42, 1)
10.0 /	76.51321 (10, 3)	74.63033 (10, 3)	58.92157 (41, 3)	60.38298C(343, 3)	54.64881C(343, 3)

HIGH
8-HR
SGROUP# 1

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* HIGHEST 8-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE DISCRETE RECEPTOR POINTS *

- RNG -	- DIR -	CON.	(DAY,PER.)	- RNG -	- DIR -	CON.	(DAY,PER.)
119.0	10.0	229.96720	(208, 2)	124.0	20.0	194.83640	(208, 2)
135.0	30.0	193.72950	(230, 2)	152.0	40.0	207.63500	(98, 2)
180.0	50.0	229.34740	(184, 2)	230.0	60.0	238.08930	(184, 2)
255.0	70.0	283.12980	(184, 2)	263.0	80.0	200.35460	(99, 1)
393.0	90.0	159.55030	(358, 2)	186.0	100.0	179.26510	(65, 2)
94.0	110.0	150.79900	(112, 2)	62.0	120.0	174.86370	(112, 2)
49.0	130.0	166.09110	(112, 2)	41.0	140.0	165.43820	(60, 2)
37.0	150.0	158.87140	(112, 2)	33.0	160.0	154.75240	(112, 2)
24.0	170.0	185.85790	(5, 2)	23.0	180.0	212.12640	(5, 2)
24.0	190.0	208.48620	(5, 2)	25.0	200.0	180.87750	(5, 2)
27.0	210.0	167.96300	(80, 2)	31.0	220.0	176.44640	(60, 2)
37.0	230.0	177.19860	(60, 2)	47.0	240.0	213.89700	(5, 2)
66.0	250.0	177.38030	(80, 2)	126.0	260.0	182.93670	(27, 2)
122.0	270.0	202.32630	(80, 2)	125.0	280.0	333.66580	(60, 2)
130.0	290.0	350.41960	(5, 2)	140.0	300.0	876.93700	(27, 3)
159.0	310.0	1189.17500	(58, 2)	170.0	320.0	251.68550	(58, 2)
150.0	330.0	288.82430	(58, 2)	138.0	340.0	315.28430	(58, 2)
132.0	350.0	256.77150	(58, 2)	129.0	360.0	405.14900	(58, 2)

Max 8-hr impacts = $\left(\frac{\text{Actual emissions}}{\text{Modeled emissions}}\right)$

X 1189.175

Styrene = 110.9 mg/m^3

Acetone = 205.8 mg/m^3

Other = 8.0 mg/m^3

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* 50 MAXIMUM 8-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *

RANK	CON.	PER.	DAY	X OR RANGE (METERS)	Y(METERS) OR DIRECTION (DEGREES)	RANK	CON.	PER.	DAY	X OR RANGE (METERS)	Y(METERS) OR DIRECTION (DEGREES)
1	2602.99400	2	60	75.0	340.0	26	700.46440	2	27	250.0	280.0
2	1989.08100	2	27	100.0	320.0	27	683.24080	2	27	75.0	340.0
3	1694.27800	2	27	75.0	350.0	28	679.57950	2	60	250.0	260.0
4	1451.65600	3	27	75.0	340.0	29	671.23500	3	27	100.0	320.0
5	1189.17500	2	58	159.0	310.0	30	653.69140	2	8	100.0	320.0
6	1123.65500	2	5	100.0	310.0	31	648.28500	3	99	140.0	300.0
7	1105.99100	2	27	100.0	330.0	32	644.74070	2	27	75.0	20.0
8	992.35580	2	60	75.0	320.0	33	618.74740	2	27	100.0	310.0
9	969.91710	2	27	75.0	360.0	34	615.76750	2	60	100.0	320.0
10	969.20960	2	5	75.0	330.0	35	588.51960	3	8	100.0	320.0
11	945.29440	2	27	75.0	330.0	36	577.79720	2	80	300.0	280.0
12	915.17100	2	60	50.0	350.0	37	555.74970	2	5	50.0	330.0
13	876.93700	3	27	140.0	300.0	38	543.56400	2	8	100.0	310.0
14	830.20750	2	60	50.0	360.0	39	541.69200	2	5	75.0	300.0
15	827.12700	2	60	140.0	300.0	40	535.58960	2	60	100.0	300.0
16	803.69650	3	26	100.0	320.0	41	532.75190	3	60	75.0	340.0
17	796.76900	2	27	75.0	10.0	42	529.36180	1	99	100.0	330.0
18	793.30640	1	11	200.0	290.0	43	526.57240	2	26	75.0	340.0
19	746.49320	3	60	100.0	320.0	44	524.37870	2	27	50.0	10.0
20	746.16470	2	80	140.0	300.0	45	521.61880	2	208	150.0	310.0
21	734.00830	2	27	250.0	270.0	46	518.64730	2	80	75.0	330.0
22	725.90390	2	60	150.0	290.0	47	516.91100	3	27	150.0	290.0
23	717.47810	2	60	250.0	270.0	48	513.57960	2	27	50.0	20.0
24	709.21660	2	60	50.0	320.0	49	511.80130	2	26	140.0	300.0
25	704.58780	3	27	75.0	320.0	50	504.28450	2	26	75.0	350.0

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 1096.80700 AND OCCURRED AT (75.0, 340.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 25.0	50.0	75.0	100.0	150.0
360.0 /	160.51520 (27, 1)	393.99100C(60, 1)	323.33370 (27, 1)	106.15570 (184, 1)	101.28850 (58, 1)
350.0 /	173.18640C(60, 1)	362.21400C(60, 1)	579.77260 (27, 1)	166.17160C(208, 1)	115.63460 (58, 1)
340.0 /	225.57580C(60, 1)	265.23160 (27, 1)	1096.80700C(60, 1)	137.55290 (184, 1)	91.68733 (58, 1)
330.0 /	248.95130C(60, 1)	284.83440C(60, 1)	337.11670C(5, 1)	368.66380 (27, 1)	107.03030 (58, 1)
320.0 /	217.80020C(60, 1)	302.49160C(60, 1)	484.18450C(60, 1)	898.99970 (27, 1)	128.76800 (58, 1)
310.0 /	156.13890C(60, 1)	152.85240 (27, 1)	235.14450 (27, 1)	390.83680C(5, 1)	221.55210C(208, 1)
300.0 /	110.39970 (27, 1)	139.54380 (27, 1)	188.44150C(5, 1)	292.44160C(60, 1)	153.31880 (27, 1)
290.0 /	105.21630 (27, 1)	164.75340C(60, 1)	197.98680C(60, 1)	146.50650 (27, 1)	358.91170C(60, 1)
280.0 /	100.90230 (27, 1)	164.37240C(60, 1)	95.00266 (27, 1)	157.79680C(60, 1)	137.43110 (8, 1)
270.0 /	95.63881 (27, 1)	121.67290C(60, 1)	84.06200 (80, 1)	108.69230C(60, 1)	100.65590C(5, 1)
260.0 /	89.64846 (27, 1)	88.81583C(5, 1)	87.10078C(60, 1)	73.95281C(5, 1)	77.96758 (27, 1)
250.0 /	91.01266C(60, 1)	84.28123 (80, 1)	77.16084C(60, 1)	70.31793 (106, 1)	55.66710 (27, 1)
240.0 /	89.27043C(60, 1)	80.37466 (80, 1)	67.87856 (106, 1)	63.03893 (80, 1)	50.56740 (112, 1)
230.0 /	85.50366C(60, 1)	76.00949 (80, 1)	63.86698 (106, 1)	58.13415 (80, 1)	51.17476 (112, 1)
220.0 /	80.91345C(60, 1)	69.71191 (80, 1)	59.50323 (106, 1)	52.34707C(65, 1)	49.53157 (112, 1)
210.0 /	76.41329C(60, 1)	64.15757 (106, 1)	56.47327 (106, 1)	49.15989C(65, 1)	48.00952 (112, 1)
200.0 /	72.85573C(60, 1)	63.65690 (106, 1)	55.54121 (106, 1)	47.15563C(65, 1)	47.94684 (112, 1)
190.0 /	71.18027C(60, 1)	63.47392 (106, 1)	55.90991 (106, 1)	46.69901C(65, 1)	49.95593 (112, 1)
180.0 /	72.24082C(60, 1)	63.65905 (106, 1)	57.15790 (106, 1)	47.28369C(65, 1)	52.09468 (112, 1)
170.0 /	76.36521C(60, 1)	64.28461 (106, 1)	59.18000 (106, 1)	50.68626 (106, 1)	51.51707 (112, 1)
160.0 /	82.99774C(60, 1)	65.34820 (106, 1)	61.59990 (106, 1)	55.30879 (106, 1)	49.51059 (112, 1)
150.0 /	90.69971C(60, 1)	66.76982 (106, 1)	64.28725 (106, 1)	59.87503 (106, 1)	49.75458 (112, 1)
140.0 /	97.33738C(60, 1)	70.47454C(60, 1)	67.23180 (106, 1)	64.61657 (106, 1)	56.73939 (106, 1)
130.0 /	101.07200C(60, 1)	73.78073C(60, 1)	70.56427 (106, 1)	69.60117 (106, 1)	64.75208 (106, 1)
120.0 /	100.92250C(60, 1)	76.21700 (27, 1)	74.12296 (106, 1)	74.51261 (106, 1)	72.91890 (106, 1)
110.0 /	98.25378C(60, 1)	85.77502C(60, 1)	79.27073C(60, 1)	79.84496 (106, 1)	82.32530 (106, 1)
100.0 /	100.53730 (27, 1)	102.83390C(60, 1)	84.23757 (27, 1)	88.15308 (106, 1)	95.89798 (106, 1)
90.0 /	106.28510 (27, 1)	111.43340C(60, 1)	92.05019 (106, 1)	101.63910 (106, 1)	110.00330 (106, 1)
80.0 /	112.28760 (27, 1)	114.66080 (27, 1)	104.07100 (106, 1)	117.79260 (106, 1)	115.11390 (106, 1)
70.0 /	118.72910 (27, 1)	124.77430 (27, 1)	118.65400 (106, 1)	130.99900 (106, 1)	103.05320 (99, 1)
60.0 /	128.71590C(60, 1)	135.35730 (27, 1)	131.45020 (106, 1)	132.16020 (106, 1)	129.71430 (99, 1)
50.0 /	139.46390C(60, 1)	148.50280 (27, 1)	139.40920 (106, 1)	120.00940 (99, 1)	130.54480 (184, 1)
40.0 /	145.76970C(60, 1)	166.86540 (27, 1)	141.74570 (106, 1)	149.57520 (99, 1)	97.68470C(98, 1)
30.0 /	144.64510C(60, 1)	193.09580 (27, 1)	168.06680 (27, 1)	158.48050 (99, 1)	84.58554 (183, 1)
20.0 /	149.22150 (27, 1)	231.38270 (27, 1)	214.91390 (27, 1)	158.27820 (184, 1)	86.22231 (58, 1)
10.0 /	154.35140 (27, 1)	287.59700 (27, 1)	265.59050 (27, 1)	128.28670 (184, 1)	124.60400 (58, 1)

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 1096.80700 AND OCCURRED AT (75.0, 340.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 200.0	250.0	300.0	350.0	400.0
360.0 /	96.72876 (58, 1)	73.90568 (58, 1)	45.04906 (58, 1)	42.27923C(210, 1)	45.24821C(210, 1)
350.0 /	87.58661 (58, 1)	53.45198 (58, 1)	44.28166C(210, 1)	47.85200C(210, 1)	56.28898C(210, 1)
340.0 /	83.72975 (58, 1)	40.52083 (58, 1)	44.45848C(73, 1)	47.06926C(210, 1)	51.86349C(210, 1)
330.0 /	84.93115 (58, 1)	47.34285C(73, 1)	44.08304 (78, 1)	49.12881C(210, 1)	46.53465C(210, 1)
320.0 /	85.00636C(73, 1)	64.16031 (72, 1)	87.08916 (72, 1)	57.01026 (78, 1)	44.09472 (78, 1)
310.0 /	78.78274 (58, 1)	57.92223 (72, 1)	100.42790 (72, 1)	71.55200 (72, 1)	93.19203 (72, 1)
300.0 /	55.89991 (58, 1)	75.07832 (72, 1)	85.66998 (72, 1)	49.54307 (72, 1)	47.72318 (147, 1)
290.0 /	371.91820 (11, 1)	114.86880C(154, 1)	141.35290 (78, 1)	79.79694C(94, 1)	71.47741C(94, 1)
280.0 /	205.70760 (8, 1)	260.43310 (27, 1)	219.76440 (80, 1)	80.99782 (318, 1)	71.97119 (9, 1)
270.0 /	167.24050 (27, 1)	406.68850 (27, 1)	111.70150 (80, 1)	283.49330 (8, 1)	107.70530 (8, 1)
260.0 /	121.96140C(60, 1)	299.77340C(60, 1)	109.63520 (80, 1)	76.75388 (8, 1)	143.65330 (8, 1)
250.0 /	92.59915C(60, 1)	92.86266 (80, 1)	54.31966 (80, 1)	75.12770 (11, 1)	64.08878 (340, 1)
240.0 /	71.28063C(60, 1)	59.79257 (80, 1)	34.75454C(87, 1)	41.73378C(87, 1)	46.50785C(87, 1)
230.0 /	51.35748C(60, 1)	43.31869 (80, 1)	40.23454C(5, 1)	33.91011C(87, 1)	39.12732C(87, 1)
220.0 /	40.07978 (99, 1)	33.41136 (80, 1)	36.43072C(5, 1)	26.23695C(87, 1)	28.69900C(87, 1)
210.0 /	38.35031 (112, 1)	35.85346 (99, 1)	27.36256 (80, 1)	28.50623C(5, 1)	30.15563 (11, 1)
200.0 /	38.85006 (112, 1)	37.61973 (99, 1)	26.58503 (80, 1)	27.94502 (80, 1)	31.29459C(5, 1)
190.0 /	41.65246 (112, 1)	35.40218 (112, 1)	33.70094 (99, 1)	28.01230 (80, 1)	28.75415 (80, 1)
180.0 /	46.96906 (112, 1)	38.39615 (112, 1)	34.74935 (112, 1)	31.51585 (99, 1)	30.34316 (337, 1)
170.0 /	53.22501 (112, 1)	45.20663 (112, 1)	37.67940 (112, 1)	34.63136 (112, 1)	32.12717 (112, 1)
160.0 /	54.85658 (112, 1)	54.57487 (112, 1)	48.27019 (112, 1)	40.99364 (112, 1)	36.03817 (112, 1)
150.0 /	52.37174 (112, 1)	55.65125 (112, 1)	56.06599 (112, 1)	53.49350 (112, 1)	49.03601 (112, 1)
140.0 /	52.83423 (112, 1)	53.46905 (112, 1)	53.74269 (112, 1)	53.05679 (112, 1)	51.54136 (112, 1)
130.0 /	59.92569C(65, 1)	54.01579C(65, 1)	51.10088C(200, 1)	52.92022C(200, 1)	53.55497C(200, 1)
120.0 /	69.41241 (106, 1)	67.66911C(65, 1)	67.06962C(65, 1)	64.76753C(65, 1)	61.38746C(65, 1)
110.0 /	83.68547 (106, 1)	83.19193 (106, 1)	80.95202 (106, 1)	77.33861 (106, 1)	73.02989 (106, 1)
100.0 /	98.77336 (106, 1)	97.13004 (106, 1)	93.18900 (106, 1)	87.55829 (106, 1)	81.21947 (106, 1)
90.0 /	104.31910 (106, 1)	94.71655 (106, 1)	83.31056 (106, 1)	76.21177 (201, 1)	73.23032 (201, 1)
80.0 /	89.28622 (99, 1)	96.86491 (99, 1)	101.64850 (99, 1)	101.97900 (99, 1)	96.67644 (99, 1)
70.0 /	117.06630 (99, 1)	105.49510 (184, 1)	99.05145 (184, 1)	84.21897 (184, 1)	67.89520 (184, 1)
60.0 /	114.74540 (184, 1)	83.24339C(157, 1)	81.02644 (183, 1)	86.43893 (183, 1)	87.85009 (183, 1)
50.0 /	87.17157C(98, 1)	89.34328 (183, 1)	89.84077 (183, 1)	86.59633 (183, 1)	81.80949 (202, 1)
40.0 /	89.18295 (183, 1)	83.28111 (202, 1)	83.43385 (202, 1)	89.67752 (58, 1)	101.20110 (58, 1)
30.0 /	85.41509 (58, 1)	98.91951 (58, 1)	107.76760 (58, 1)	111.17910 (58, 1)	105.92360 (58, 1)
20.0 /	112.20070 (58, 1)	107.66050 (58, 1)	98.83730 (58, 1)	84.47408 (58, 1)	66.96396 (58, 1)
10.0 /	106.78160 (58, 1)	93.82699 (58, 1)	72.99004 (58, 1)	50.15607 (58, 1)	37.80025C(210, 1)

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 1096.80700 AND OCCURRED AT (75.0, 340.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 450.0	500.0	600.0	700.0	800.0
360.0 /	54.06712C(210, 1)	60.63840C(210, 1)	51.37878 (10, 1)	44.95182 (10, 1)	38.49048 (10, 1)
350.0 /	56.41025C(210, 1)	53.57919C(210, 1)	43.70470C(210, 1)	42.95083 (37, 1)	37.98063 (37, 1)
340.0 /	51.33394C(210, 1)	44.79900 (79, 1)	35.31822 (330, 1)	45.41435 (334, 1)	43.21167 (334, 1)
330.0 /	43.94534 (78, 1)	36.64621C(73, 1)	37.74178 (298, 1)	37.92103 (298, 1)	37.45634 (298, 1)
320.0 /	51.58458 (72, 1)	47.92699 (72, 1)	51.38985 (72, 1)	44.96248 (72, 1)	43.54110 (78, 1)
310.0 /	95.21170 (72, 1)	88.92955 (72, 1)	83.44131 (72, 1)	85.68716 (72, 1)	85.35271 (72, 1)
300.0 /	47.08927 (147, 1)	49.04115 (147, 1)	55.80262 (147, 1)	69.45486 (72, 1)	71.25816 (72, 1)
290.0 /	70.63527 (72, 1)	78.12607 (147, 1)	79.01365 (147, 1)	76.47919 (147, 1)	72.34166 (147, 1)
280.0 /	83.26796 (314, 1)	101.60910C(94, 1)	114.30010C(94, 1)	113.14000C(94, 1)	102.87110C(94, 1)
270.0 /	93.38097 (318, 1)	87.59508 (124, 1)	73.11523 (124, 1)	75.88695 (314, 1)	83.29321 (314, 1)
260.0 /	106.91760 (8, 1)	111.10250 (318, 1)	98.69351 (318, 1)	83.50971 (318, 1)	88.26755 (260, 1)
250.0 /	77.80495 (340, 1)	95.50909 (340, 1)	107.50930 (340, 1)	116.91240 (318, 1)	123.67240 (318, 1)
240.0 /	49.75412C(87, 1)	52.54014C(87, 1)	64.56443 (290, 1)	72.52192 (340, 1)	83.86503 (340, 1)
230.0 /	42.01304C(87, 1)	39.85125C(87, 1)	48.36080C(301, 1)	61.37875C(301, 1)	64.15652C(301, 1)
220.0 /	31.08248C(87, 1)	32.98137C(87, 1)	32.45815C(87, 1)	34.49295C(301, 1)	37.72174C(301, 1)
210.0 /	33.29065 (11, 1)	34.19912 (11, 1)	35.39951 (11, 1)	36.42770 (11, 1)	33.39857 (11, 1)
200.0 /	32.29626 (11, 1)	36.34624 (11, 1)	40.06257 (11, 1)	38.86799 (11, 1)	36.01556 (11, 1)
190.0 /	31.56837 (80, 1)	32.87749C(5, 1)	27.94343 (11, 1)	29.81265 (11, 1)	29.63128 (11, 1)
180.0 /	29.72891C(127, 1)	28.73249C(127, 1)	28.42222 (80, 1)	32.05463C(5, 1)	28.36591C(5, 1)
170.0 /	29.86329C(13, 1)	29.83296 (337, 1)	29.37936C(5, 1)	29.07349C(5, 1)	29.08323C(5, 1)
160.0 /	33.58764 (112, 1)	32.14365 (112, 1)	28.19494 (112, 1)	25.65866 (337, 1)	25.39687 (337, 1)
150.0 /	43.98437 (112, 1)	39.26540 (112, 1)	32.44081 (112, 1)	28.73769 (112, 1)	26.63014 (99, 1)
140.0 /	49.39392 (112, 1)	46.84591 (112, 1)	41.34934 (112, 1)	37.80636C(200, 1)	35.91115C(200, 1)
130.0 /	52.62005C(200, 1)	50.57187C(200, 1)	45.96350C(200, 1)	42.64037C(200, 1)	40.69417C(200, 1)
120.0 /	57.46297C(65, 1)	56.04391C(229, 1)	53.86902C(229, 1)	50.86424C(229, 1)	50.39519C(200, 1)
110.0 /	68.53209 (106, 1)	64.14832 (106, 1)	63.78282C(229, 1)	63.49302C(229, 1)	62.37754C(229, 1)
100.0 /	74.79864 (106, 1)	68.63540 (106, 1)	71.48515C(230, 1)	72.00630C(230, 1)	70.32515C(230, 1)
90.0 /	69.87463 (201, 1)	67.87448 (99, 1)	65.83967C(358, 1)	61.40009C(358, 1)	55.95192C(358, 1)
80.0 /	87.98473 (99, 1)	78.23888 (99, 1)	65.04036 (184, 1)	55.86421 (212, 1)	52.11075 (212, 1)
70.0 /	67.89353 (183, 1)	72.29303 (183, 1)	76.41169 (183, 1)	74.08235 (183, 1)	68.86256 (183, 1)
60.0 /	87.65524 (183, 1)	86.96759 (183, 1)	84.34773 (183, 1)	79.74623 (183, 1)	73.55667 (183, 1)
50.0 /	79.73376 (202, 1)	75.86922 (202, 1)	72.46654 (58, 1)	75.35536 (58, 1)	74.77840 (58, 1)
40.0 /	107.22670 (58, 1)	108.03200 (58, 1)	99.41231 (58, 1)	84.84024 (58, 1)	70.10715 (58, 1)
30.0 /	94.53567 (58, 1)	81.03546 (58, 1)	57.08438 (58, 1)	45.77354C(231, 1)	46.96325C(231, 1)
20.0 /	51.04205 (58, 1)	42.59006C(324, 1)	45.77486C(209, 1)	47.63840C(209, 1)	45.57782C(210, 1)
10.0 /	44.35326C(209, 1)	47.00290C(209, 1)	55.44799C(210, 1)	59.63251C(210, 1)	53.09571 (10, 1)

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 1096.80700 AND OCCURRED AT (75.0, 340.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 900.0	1000.0	2000.0	3000.0	4000.0
360.0 /	36.61635 (37, 1)	36.06090 (37, 1)	18.73407 (334, 1)	17.10278C(206, 1)	14.42082 (36, 1)
350.0 /	36.44680 (334, 1)	38.30415 (334, 1)	26.64411 (36, 1)	22.43289C(204, 1)	21.08372C(204, 1)
340.0 /	45.37636 (232, 1)	49.43783 (232, 1)	43.28243 (232, 1)	33.21637 (232, 1)	22.56218 (232, 1)
330.0 /	43.30244 (232, 1)	50.91906 (232, 1)	37.20195C(164, 1)	26.29375 (151, 1)	25.32257 (151, 1)
320.0 /	42.98678C(215, 1)	46.35138C(215, 1)	45.76694 (344, 1)	36.23524 (344, 1)	25.62825 (344, 1)
310.0 /	83.33675 (72, 1)	78.70350 (72, 1)	42.25375 (147, 1)	34.23341 (147, 1)	26.36123 (147, 1)
300.0 /	68.72027 (147, 1)	66.82846 (147, 1)	62.26844 (272, 1)	57.00359 (272, 1)	46.19469 (272, 1)
290.0 /	68.57132 (147, 1)	64.88527 (147, 1)	69.38724C(270, 1)	57.21114C(270, 1)	44.50636C(270, 1)
280.0 /	90.05482C(94, 1)	78.97784 (311, 1)	65.71433 (223, 1)	51.63223 (223, 1)	39.70130 (223, 1)
270.0 /	84.95834 (314, 1)	83.87221 (314, 1)	53.12797 (312, 1)	42.57682 (312, 1)	33.54087C(286, 1)
260.0 /	90.01772 (260, 1)	88.20986 (260, 1)	108.15250 (242, 1)	105.75600 (242, 1)	83.53078 (242, 1)
250.0 /	120.59410 (318, 1)	112.00640 (318, 1)	76.16666 (263, 1)	84.25564 (263, 1)	75.18056 (263, 1)
240.0 /	86.20618 (340, 1)	83.55119 (340, 1)	70.21806C(247, 1)	50.72606C(247, 1)	32.28939 (156, 1)
230.0 /	59.41446C(301, 1)	54.13777C(301, 1)	41.37862C(300, 1)	30.64578C(86, 1)	25.98354 (261, 1)
220.0 /	40.93847C(301, 1)	43.87719C(301, 1)	35.50037C(300, 1)	36.36239 (290, 1)	36.74950 (290, 1)
210.0 /	29.18308 (11, 1)	26.29860 (306, 1)	22.75884 (306, 1)	14.76151C(254, 1)	12.70992 (294, 1)
200.0 /	34.46714 (11, 1)	33.03654 (11, 1)	24.35823 (289, 1)	17.10821 (289, 1)	12.59307 (338, 1)
190.0 /	28.63724 (11, 1)	29.32497 (303, 1)	24.01678 (331, 1)	19.05163 (289, 1)	14.80480 (289, 1)
180.0 /	22.52584C(5, 1)	20.22204C(279, 1)	22.82035 (303, 1)	19.77725 (303, 1)	15.55323 (303, 1)
170.0 /	29.65362C(5, 1)	29.98922C(5, 1)	25.18699C(279, 1)	23.41547C(279, 1)	20.01831C(279, 1)
160.0 /	24.68280 (337, 1)	23.46250 (337, 1)	15.87474C(5, 1)	15.95389C(284, 1)	15.97709C(284, 1)
150.0 /	25.87964 (99, 1)	24.55212 (99, 1)	19.52913C(127, 1)	17.61631C(279, 1)	15.02600C(279, 1)
140.0 /	32.96657C(200, 1)	32.84053C(284, 1)	40.50346C(284, 1)	33.71063C(284, 1)	26.42554C(284, 1)
130.0 /	39.68800C(200, 1)	39.37526C(200, 1)	39.40801C(200, 1)	30.34783C(200, 1)	23.32224C(200, 1)
120.0 /	49.85330C(200, 1)	48.25994C(200, 1)	27.02460 (201, 1)	23.84298 (201, 1)	19.81065 (201, 1)
110.0 /	61.95983C(228, 1)	63.37251C(228, 1)	62.28146C(228, 1)	50.48531C(228, 1)	40.51117C(228, 1)
100.0 /	67.06208C(230, 1)	62.81835C(230, 1)	28.68296C(226, 1)	20.97971 (112, 1)	19.58109 (112, 1)
90.0 /	52.22232 (201, 1)	49.92215 (201, 1)	39.01356 (201, 1)	31.21343 (201, 1)	25.02611 (201, 1)
80.0 /	47.94839 (212, 1)	43.74034 (212, 1)	30.28579 (183, 1)	24.85474 (183, 1)	20.00058 (183, 1)
70.0 /	64.01941 (183, 1)	60.48685 (183, 1)	43.91005 (183, 1)	36.33151C(228, 1)	28.25652C(228, 1)
60.0 /	66.34809 (183, 1)	58.97587 (183, 1)	62.01583C(191, 1)	48.06953C(191, 1)	33.69196C(191, 1)
50.0 /	75.87411 (322, 1)	77.79342 (322, 1)	47.16360C(190, 1)	44.23790C(190, 1)	31.22744C(190, 1)
40.0 /	58.97572C(211, 1)	57.07120C(211, 1)	33.58063C(211, 1)	28.48526C(231, 1)	28.06784C(231, 1)
30.0 /	48.00634C(231, 1)	48.86936C(231, 1)	43.52037C(203, 1)	29.91228C(210, 1)	21.75392C(210, 1)
20.0 /	50.62342C(210, 1)	53.93781C(210, 1)	29.14734 (185, 1)	17.03525C(52, 1)	12.34587C(102, 1)
10.0 /	49.52481 (10, 1)	43.82710 (10, 1)	27.07136 (41, 1)	23.13508 (42, 1)	17.27863 (42, 1)

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 1096.80700 AND OCCURRED AT (75.0, 340.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 5000.0	6000.0	7000.0	8000.0	9000.0
360.0 /	13.38300 (36, 1)	12.20103 (36, 1)	11.00860 (36, 1)	9.90723 (36, 1)	8.93830 (36, 1)
350.0 /	17.72058C(204, 1)	14.73301C(164, 1)	12.98524C(164, 1)	11.36038C(164, 1)	9.94648C(164, 1)
340.0 /	18.64838C(180, 1)	16.22520C(180, 1)	13.82616C(180, 1)	11.76554C(180, 1)	10.06019C(180, 1)
330.0 /	22.76920 (151, 1)	19.71854 (151, 1)	16.88324 (151, 1)	14.50846 (151, 1)	12.55693 (151, 1)
320.0 /	18.80619C(163, 1)	16.00075C(163, 1)	13.60827C(163, 1)	11.90180 (139, 1)	10.55807 (139, 1)
310.0 /	22.62529C(160, 1)	19.91348C(160, 1)	17.57625C(160, 1)	15.62954C(160, 1)	14.23563 (71, 1)
300.0 /	37.38470 (272, 1)	30.79880 (272, 1)	25.85752 (272, 1)	22.10885 (272, 1)	19.19760 (272, 1)
290.0 /	35.46956C(270, 1)	29.04392C(270, 1)	24.32530C(270, 1)	20.78985C(270, 1)	18.09492C(257, 1)
280.0 /	31.54007 (223, 1)	25.80126 (223, 1)	21.59960 (223, 1)	18.44393 (223, 1)	16.30997C(288, 1)
270.0 /	29.43556C(286, 1)	25.73243C(286, 1)	22.60297C(286, 1)	20.02615C(286, 1)	17.89972C(286, 1)
260.0 /	65.40060 (242, 1)	52.24693 (242, 1)	42.69967 (242, 1)	35.69012 (242, 1)	30.38629 (242, 1)
250.0 /	64.56295 (263, 1)	55.38125 (263, 1)	47.88313 (263, 1)	41.88542 (263, 1)	37.03041 (263, 1)
240.0 /	27.59871C(251, 1)	25.12329C(251, 1)	22.39858C(251, 1)	19.89966C(251, 1)	17.72143C(251, 1)
230.0 /	23.17685 (261, 1)	20.03840 (261, 1)	17.27206 (261, 1)	14.99132 (261, 1)	13.30624C(21, 1)
220.0 /	33.82378 (290, 1)	29.81189 (290, 1)	25.89429 (290, 1)	22.45201 (290, 1)	19.56754 (290, 1)
210.0 /	12.87232C(176, 1)	12.67718C(176, 1)	11.97779C(176, 1)	11.09655C(176, 1)	10.18676C(176, 1)
200.0 /	11.01725 (338, 1)	9.49438 (338, 1)	8.19158 (338, 1)	7.11814 (338, 1)	6.24041 (338, 1)
190.0 /	12.22789 (331, 1)	10.66806C(12, 1)	9.71082C(12, 1)	8.70858C(12, 1)	8.24063C(113, 1)
180.0 /	12.74701C(284, 1)	12.30518C(284, 1)	11.55244C(284, 1)	10.69224C(284, 1)	9.82585C(284, 1)
170.0 /	17.50027C(279, 1)	15.47148C(279, 1)	13.73585C(279, 1)	12.25046C(279, 1)	10.97386C(279, 1)
160.0 /	14.72200C(284, 1)	12.92734C(284, 1)	11.14080C(284, 1)	9.58042C(284, 1)	8.27033C(284, 1)
150.0 /	12.56505C(255, 1)	10.65144C(255, 1)	8.99230C(255, 1)	8.11954C(60, 1)	7.47845C(60, 1)
140.0 /	21.24515C(284, 1)	17.54046C(284, 1)	14.79857C(284, 1)	12.72044C(284, 1)	11.09406C(284, 1)
130.0 /	18.69559C(200, 1)	15.48832C(200, 1)	13.14963C(200, 1)	11.39127C(200, 1)	10.03485C(13, 1)
120.0 /	16.54453 (201, 1)	14.00908 (201, 1)	12.03838 (201, 1)	10.49907 (201, 1)	9.26629 (201, 1)
110.0 /	33.18615C(228, 1)	27.75541C(228, 1)	23.64658C(228, 1)	20.49571C(228, 1)	18.00220C(228, 1)
100.0 /	17.77787 (112, 1)	16.02555 (112, 1)	14.44934 (112, 1)	13.07022 (112, 1)	11.89080 (112, 1)
90.0 /	20.51846 (201, 1)	17.18871 (201, 1)	14.67470 (201, 1)	12.75217 (201, 1)	11.23042 (201, 1)
80.0 /	16.35915 (183, 1)	13.63688 (183, 1)	11.57537 (183, 1)	9.99369 (183, 1)	8.74636 (183, 1)
70.0 /	21.92930C(228, 1)	17.34402C(228, 1)	14.52579 (183, 1)	12.53264 (183, 1)	10.95696 (183, 1)
60.0 /	24.92172 (192, 1)	20.61434 (183, 1)	18.33224 (183, 1)	16.34795 (183, 1)	14.64557 (183, 1)
50.0 /	22.07131C(190, 1)	16.39802C(190, 1)	12.79916C(190, 1)	10.65186C(191, 1)	9.58785C(191, 1)
40.0 /	26.14777C(231, 1)	23.59479C(231, 1)	21.03493C(231, 1)	18.73985C(231, 1)	16.74857C(231, 1)
30.0 /	15.23806C(210, 1)	12.33149 (37, 1)	11.67213C(191, 1)	10.90451C(191, 1)	10.11398C(191, 1)
20.0 /	10.64933C(102, 1)	9.02899C(102, 1)	7.66643C(102, 1)	6.56117C(102, 1)	5.66995C(102, 1)
10.0 /	13.27250C(49, 1)	11.04887C(354, 1)	9.75670C(354, 1)	8.66848C(354, 1)	7.74804C(354, 1)

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 1096.80700 AND OCCURRED AT (75.0, 340.0) *

DIRECTION / (DEGREES) /	RANGE (METERS) 10000.0
360.0 /	8.09830 (36, 1)
350.0 /	8.74734C(164, 1)
340.0 /	8.66646C(180, 1)
330.0 /	10.95833 (151, 1)
320.0 /	9.45688 (139, 1)
310.0 /	13.13442 (71, 1)
300.0 /	16.88254 (272, 1)
290.0 /	16.12116C(257, 1)
280.0 /	14.68455C(288, 1)
270.0 /	16.12630C(286, 1)
260.0 /	26.26448 (242, 1)
250.0 /	33.04530 (263, 1)
240.0 /	15.85553C(251, 1)
230.0 /	12.26403C(21, 1)
220.0 /	17.17602 (290, 1)
210.0 /	9.32134C(176, 1)
200.0 /	5.52013 (338, 1)
190.0 /	8.02922C(113, 1)
180.0 /	9.00710C(284, 1)
170.0 /	9.87753C(279, 1)
160.0 /	7.18636C(284, 1)
150.0 /	6.89685C(60, 1)
140.0 /	9.79229C(284, 1)
130.0 /	9.14690C(13, 1)
120.0 /	8.30441 (66, 1)
110.0 /	15.98931C(228, 1)
100.0 /	10.87799 (112, 1)
90.0 /	10.00138 (201, 1)
80.0 /	7.74544 (183, 1)
70.0 /	9.68824 (183, 1)
60.0 /	13.19335 (183, 1)
50.0 /	8.65262C(191, 1)
40.0 /	15.04351C(231, 1)
30.0 /	9.35642C(191, 1)
20.0 /	4.94816C(102, 1)
10.0 /	6.96452C(354, 1)

HIGH
24-HR
SGROUP# 1

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET.DATA ***

* HIGHEST 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE DISCRETE RECEPTOR POINTS *

- RNG -	- DIR -	CON.	(DAY,PER.)	- RNG -	- DIR -	CON.	(DAY,PER.)
119.0	10.0	98.50470C	(208, 1)	124.0	20.0	83.97906C	(98, 1)
135.0	30.0	91.41723C	(98, 1)	152.0	40.0	96.16335C	(98, 1)
180.0	50.0	95.76904C	(98, 1)	230.0	60.0	91.98473	(184, 1)
255.0	70.0	105.55580	(184, 1)	263.0	80.0	98.36617	(99, 1)
393.0	90.0	73.67988	(201, 1)	186.0	100.0	98.27154	(106, 1)
94.0	110.0	79.40721	(106, 1)	62.0	120.0	73.81577	(106, 1)
49.0	130.0	74.55091C	(60, 1)	41.0	140.0	78.40448C	(60, 1)
37.0	150.0	76.51970C	(60, 1)	33.0	160.0	74.15807C	(60, 1)
24.0	170.0	77.53738C	(60, 1)	23.0	180.0	73.93343C	(60, 1)
24.0	190.0	72.52547C	(5, 1)	25.0	200.0	72.85573C	(60, 1)
27.0	210.0	77.99339C	(60, 1)	31.0	220.0	86.08252C	(60, 1)
37.0	230.0	88.62416C	(60, 1)	47.0	240.0	81.45205	(80, 1)
66.0	250.0	71.68142	(80, 1)	126.0	260.0	75.31845	(106, 1)
122.0	270.0	79.13853	(99, 1)	125.0	280.0	139.16450	(8, 1)
130.0	290.0	161.95340	(27, 1)	140.0	300.0	401.11890	(27, 1)
159.0	310.0	406.72430	(58, 1)	170.0	320.0	93.09900	(58, 1)
150.0	330.0	107.03030	(58, 1)	138.0	340.0	117.16970	(58, 1)
132.0	350.0	100.17140	(58, 1)	129.0	360.0	151.12930	(58, 1)

Max 24-hr impacts = $\left(\frac{\text{Actual emissions}}{\text{Modeled emissions}}\right)$

X 406.72430

Styrene = 37.9 ug/m^3

Acetone = 70.4 ug/m^3

Other = 2.7 ug/m^3

*** PROLINE BOATS - AIR TOXICS ANALYSIS - 1986 TAMPA MET DATA ***

* 50 MAXIMUM 24-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *

RANK	CON.	PER.	DAY	X OR RANGE (METERS)	Y(METERS) OR DIRECTION (DEGREES)	RANK	CON.	PER.	DAY	X OR RANGE (METERS)	Y(METERS) OR DIRECTION (DEGREES)
1	1096.80700C	1	60	75.0	340.0	26	323.33370	1	27	75.0	360.0
2	898.99970	1	27	100.0	320.0	27	302.49160C	1	60	50.0	320.0
3	719.53980	1	27	75.0	340.0	28	300.91440	1	27	50.0	350.0
4	579.77260	1	27	75.0	350.0	29	299.77340C	1	60	250.0	260.0
5	484.18450C	1	60	75.0	320.0	30	299.24730	1	99	140.0	300.0
6	475.39780C	1	60	100.0	320.0	31	292.44160C	1	60	100.0	300.0
7	414.07040	1	8	100.0	320.0	32	287.59700	1	27	50.0	10.0
8	411.58290C	1	26	100.0	320.0	33	284.83440C	1	60	50.0	330.0
9	406.72430	1	58	159.0	310.0	34	283.49330	1	8	350.0	270.0
10	406.68850	1	27	250.0	270.0	35	265.59050	1	27	75.0	10.0
11	401.11890	1	27	140.0	300.0	36	265.23160	1	27	50.0	340.0
12	393.99100C	1	60	50.0	360.0	37	262.61790	1	27	100.0	300.0
13	390.83680C	1	5	100.0	310.0	38	260.43310	1	27	250.0	280.0
14	380.16930	1	27	75.0	320.0	39	259.55630	1	80	140.0	300.0
15	371.91820	1	11	200.0	290.0	40	248.95130C	1	60	25.0	330.0
16	368.66380	1	27	100.0	330.0	41	243.86340	1	27	150.0	290.0
17	362.21400C	1	60	50.0	350.0	42	242.14650	1	99	100.0	330.0
18	358.91170C	1	60	150.0	290.0	43	240.87530	1	80	100.0	310.0
19	355.70880C	1	26	75.0	340.0	44	239.61200	1	80	75.0	330.0
20	350.27840C	1	60	140.0	300.0	45	235.14450	1	27	75.0	310.0
21	339.88430	1	8	100.0	310.0	46	231.38270	1	27	50.0	20.0
22	337.32210C	1	60	250.0	270.0	47	230.65120	1	8	100.0	300.0
23	337.11670C	1	5	75.0	330.0	48	228.86400C	1	26	75.0	350.0
24	334.67270	1	27	50.0	360.0	49	225.57580C	1	60	25.0	340.0
25	332.65210	1	27	75.0	330.0	50	225.03970	1	27	50.0	330.0

APPENDIX C

MATERIAL USE RECORDS
5/88 - 4/90

BEST AVAILABLE COPY

PO.HISTORY.UMC   PRO-LINE BOATS, INC.   Page 1
21:21:37 12 OCT 1983   Acct [illegible]

Screen for PO.HISTORY [illegible] Purchase History for a Part

Part Number 400119   Desc RESIN   UM [illegible]

Accounting Value 0.57[illegible]
Last Actual Cost 0.570
Avg Actual [illegible]

pounds

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	First	Last
815	REICHHOLD	902708	0.530/	1000	06-24-90	06-26-90	
305	ALPHA RESINS	902622	0.530/	40000	07-05-90	07-13-90	
305	ALPHA RESINS	902335	0.530/	40000	06-29-90	07-09-90	
305	ALPHA RESINS	902304	0.530/	40000	06-13-90	06-22-90	
305	ALPHA RESINS	902234	0.530/	40000	06-04-90	06-11-90	
305	ALPHA RESINS	901724	0.530/	40000	05-29-90	06-01-90	
815	REICHHOLD	901927	0.530/	40000	05-22-90	06-04-90	
815	REICHHOLD	901843	0.540/	40000	05-10-90	05-18-90	
815	REICHHOLD	901592	0.540/	40000	05-02-90	05-07-90	
542	SHEREX CHEMICAL CO	900?92	0.530/	500	04-[illegible]-90	04-25-90	

4-90

Part Number 400119   Desc RESIN   UM LB

Accounting Value 0.670
Last Actual Cost 0.570
Avg Actual Cost 0.609

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	-- Deliveries -- First	Last
815	REICHHOLD	901531	0.540/	40000	04-23-90	04-30-90	
815	REICHHOLD	901347	0.540/	40000	04-12-90	04-20-90	
815	REICHHOLD	901301	0.540/	40000	04-05-90	04-11-90	
815	REICHHOLD	901143	0.540/	40000	03-29-90	04-06-90	
[illegible]	SHEREX CHEMICAL CO	900260	0.540/	2500	03-21-90	03-23-90	
[illegible]	[illegible]	9110[illegible]	[illegible]	40000	03-20-90	03-27-90	
[illegible]	[illegible]	[illegible]	[illegible]	40000	[illegible]-90	03-1[illegible]	
815	REICHHOLD	900771	[illegible]	40000	[illegible]	03-07-90	
815	REICHHOLD	900714	0.540/	40000	[illegible]	[illegible]	
815	REICHHOLD	900562	0.540/	40000	02-0[illegible]-90	[illegible]	

Part Number 400119   Desc RESIN   UM LB

Accounting Value 0.570
Last Actual Cost 0.570
Avg Actual Cost 0.609

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	-- Deliveries -- First	Last
542	SHEREX CHEMICAL CO	900229	0.540/	25[illegible]	[illegible]-90	02-12-90	
815	REICHHOLD	900336	0.540/	40000	[illegible]-90	02-05-[illegible]	
815	REICHHOLD	900303	0.540/	40000	01-17-90	01-25-90	
[illegible]	[illegible] CHEMICAL CO	900210	0.540/	2500	01-13-90	01-25-90	
[illegible]	[illegible]	900054	0.540/	40000	01-11-90	01-16-90	
[illegible]	[illegible]	893067	0.540/	40000	12-01-89	01-03-90	
815	REICHHOLD	893052	0.540/	40000	11-30-89	12-07-89	
815	REICHHOLD	893028	0.540/	40000	11-22-89	11-30-89	
999	MISCELLANEOUS	892643	0.550/	0	11-13-89	12-03-89	
999	MISCELLANEOUS	892642	0.540/	40000	11-[illegible]-89	11-[illegible]	

Part Number 400119   Desc [illegible]   UM [illegible]

Accounting Value 0.570
Last Actual Cost 0.570
Avg Actual Cost 0.609

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	-- Deliveries -- First	Last
542	SHEREX CHEMICAL CO	892637	0.560/	10000	11-10-89	11-14-89	
305	ALPHA RESINS	892939	0.530/	40000	11-06-89	11-10-89	
305	ALPHA RESINS	898700	0.590/	10000	09-20-89	09-27-89	
999	MISCELLANEOUS	892631	0.540/	10000	11-06-89	11-20-89	
542	SHEREX CHEMICAL CO	892799	0.560/	40000	10-30-89	11-03-89	
542	SHEREX CHEMICAL CO	892736	0.560/	35000	10-20-89	10-25-89	
542	SHEREX CHEMICAL CO	892372	0.550/	2000	10-11-89	10-13-89	
305	ALPHA RESINS	892485	0.550/	40000	10-13-89	10-20-89	
999	MISCELLANEOUS	878630	0.560/	5000	10-04-89	10-23-89	
999	MISCELLANEOUS	892423	0.560/	35000	09-29-89	10-11-89	

[illegible]   UM [illegible]

Accounting Value 0.570

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
	SHEREX CHEMICAL CO	892192 1	0.560/	80000	09-22-89	09-26-89	
	[illegible]	888576	0.590/	0	09-20-89	09-27-89	
	[illegible]	[illegible]	0.560/	2200	09-21-89	09-27-89	
	[illegible]	[illegible]	0.560/	35000	09-13-89	09-18-89	
#542	SHEREX CHEMICAL CO	892130	0.560/	35000	09-08-89	09-12-89	
#542	SHEREX CHEMICAL CO	892090	0.580/	35000	08-31-89	09-06-89	
#126	ALPHA RESINS SUPPL	888433	0.590/	2500	08-21-89	08-22-89	
#542	SHEREX CHEMICAL CO	892043	0.580/	35000	08-21-89	08-24-89	
#999	MISCELLANEOUS	888395	0.530/	2500	08-14-89	08-21-89	
#542	SHEREX CHEMICAL CO	891995	0.580/	40000	08-07-89	08-15-89	

Part Number 400119 Desc RESIN

Accounting Value 0.570
Last Actual Cost 0.570
Avg Actual Cost 0.609

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
#542	SHEREX CHEMICAL CO	891975	0.580/	40000	09-04-89	09-09-89	
#542	SHEREX CHEMICAL CO	891907	0.580/	40000	07-21-89	07-28-89	
#542	SHEREX CHEMICAL CO	891693	0.580/	40000	07-14-89	07-20-89	
#542	SHEREX CHEMICAL CO	891643	0.580/	40000	06-30-89	07-12-89	
#542	SHEREX CHEMICAL CO	65777	0.580/	31340	[illegible]	[illegible]	
#542	SHEREX CHEMICAL CO	65778	0.570/	43840	[illegible]	12-01-88	
#153	AZS CORPORATION	65721	0.570/	80000	[illegible]	[illegible]	
[illegible]	AZS CORPORATION	65700	0.570/	42560	11-[illegible]	11-[illegible]	
[illegible]	[illegible]RATION	65641	0.570/	41880	11-16-88	11-21-88	
[illegible]	[illegible]RATION	65416	0.570/	40000	11-04-88	11-10-88	

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4-89

Part Number 400119 Desc RESIN UM LB

Accounting Value 0.570
Last Actual Cost 0.570
Avg Actual Cost 0.609

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
#153	AZS CORPORATION	65374A	0.570/	40000	10-21-88	11-02-88	
#153	AZS CORPORATION	65375A	0.560/	40000	10-21-88	10-26-88	
#153	AZS CORPORATION	65367	0.570/	40000	10-14-88	10-19-88	
#153	AZS CORPORATION	65259	0.590/	40000	10-05-88	10-10-88	
#153	AZS CORPORATION	65252	0.570/	40000	09-29-88	10-03-88	
#153	AZS CORPORATION	65181	0.590/	40000	09-16-88	09-26-88	
#153	AZS CORPORATION	65161	0.590/	40000	09-14-88	09-19-88	
#153	AZS CORPORATION	64992	0.590/	40000	09-30-88	09-06-88	
#153	AZS CORPORATION	64972	0.570/	40000	08-19-88	08-25-88	
#542	SHEREX CHEMICAL CO	64819	0.590/	40000	08-05-88	08-11-88	

Part Number 400119 Desc RESIN UM LB

Accounting Value 0.570
Last Actual Cost 0.570
Avg Actual Cost 0.609

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
#153	AZS CORPORATION	64808	0.590/	40000	07-29-88	08-04-88	
#153	AZS CORPORATION	64729	0.590/	40000	07-08-88	07-14-88	
#542	SHEREX CHEMICAL CO	64659	0.590/	40000	06-29-88	07-06-88	
#153	AZS CORPORATION	64641	0.540/	40000	06-22-88	06-27-88	
#542	SHEREX CHEMICAL CO	64494	0.540/	40000	06-10-88	06-16-88	
[illegible]	SHEREX CHEMICAL CO	64458	0.540/	40000	06-01-88	06-08-88	
[illegible]	[illegible] CHEMICAL CO	[illegible]	[illegible]	44000	[illegible]	05-24-88	
[illegible]	SHEREX CHEMICAL CO	64277	[illegible]	42000	[illegible]	[illegible]	

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3,168,000 (6/2) →
× 1/2
× 1/2000
= [illegible] ton
777.0

PO.HISTORY.UMC PRO-LINE BOATS, INC. Page 1
21:54:47 12 OCT 1990 Acct MNG Port 9

Screen For PO.HISTORY Purchase History Inq

Part Number 400135 Desc RESIN, TOOLING UM LB

Accounting Value 0.910
Last Actual Cost 0.910
Avg Actual Cost 0.894

pounds

#Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
#353	GLS CHEMICAL FIBER	904226	0.910/	1000	11-09-90	11-12-90	
#353	GLS CHEMICAL FIBER	904994	0.910/	500	11-01-90	11-02-90	
#353	GLS CHEMICAL FIBER	904905	0.910/	1500	10-12-90	10-15-90	
#353	GLS CHEMICAL FIBER	903769	0.930/	500	10-09-90	10-09-90	
#126	ALPHA RESINS SUPPL	903220	0.880/	1000	08-23-90	08-23-90	
#353	GLS CHEMICAL FIBER	902564	0.950/	1000	08-03-90	08-07-90	
#353	GLS CHEMICAL FIBER	902255	0.850/	500	06-22-90	07-03-90	
#126	ALPHA RESINS SUPPL	901855	0.930/	1000	05-11-90	05-14-90	
#353	GLS CHEMICAL FIBER	901824	0.850/	475	05-08-90	05-10-90	
#126	ALPHA RESINS SUPPL	901575	0.950/	1000	04-27-90	04-30-90	

4-90

Part Number 400135 Desc RESIN, TOOLING UM LB

Accounting Value 0.910
Last Actual Cost 0.910
Avg Actual Cost 0.894

#Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
#126	ALPHA RESINS SUPPL	900926	0.880/	1000	03-07-90	03-08-90	
#126	ALPHA RESINS SUPPL	900053	0.880/	1500	01-12-90	01-15-90	
#126	ALPHA RESINS SUPPL	900011	0.880/	500	01-05-90	01-08-90	
#126	ALPHA RESINS SUPPL	893063	0.880/	1000	12-01-89	12-04-89	
#126	ALPHA RESINS SUPPL	892185	0.890/	1000	09-22-89	09-25-89	
#126	ALPHA RESINS SUPPL	891623	0.880/	2500	06-27-89	07-06-89	
#126	ALPHA RESINS SUPPL	891422	0.880/	500	06-09-89	06-12-89	
#126	ALPHA RESINS SUPPL	891338	0.880/	1000	06-02-89	06-05-89	
#126	ALPHA RESINS SUPPL	891264	0.880/	1500	05-19-89	05-23-89	
#126	ALPHA RESINS SUPPL	891116	0.880/	1000	05-04-89	05-08-89	

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Part Number 400135 Desc RESIN, TOOLING UM LB

Accounting Value 0.910
Last Actual Cost 0.910
Avg Actual Cost 0.894

#Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
#126	ALPHA RESINS SUPPL	890969	0.880/	1000	03-17-89	03-20-89	
#126	ALPHA RESINS SUPPL	890952	0.880/	500	03-16-89	03-16-89	
#126	ALPHA RESINS SUPPL	890644	0.880/	1000	03-03-89	03-10-89	
#126	ALPHA RESINS SUPPL	890521	0.850/	1000	02-24-89	03-03-89	
#126	ALPHA RESINS SUPPL	65774	0.850/	500	12-09-88	12-12-88	
#126	ALPHA RESINS SUPPL	65695	0.950/	1500	11-21-88	11-22-88	
#126	ALPHA RESINS SUPPL	64787	0.840/	2500	07-26-88	08-01-88	
#126	ALPHA RESINS SUPPL	64541	0.900/	2500	06-16-88	06-20-88	
#126	ALPHA RESINS SUPPL	64454	0.760/	1000	06-03-88	06-07-88	
#126	ALPHA RESINS SUPPL	64393	0.760/	2000	05-20-88	05-20-88	

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20,000 lb/yr
x 1/2
x 1/2wo
= 6.5 ty

Screen For FO.HISTORY Show Purchase History for a Part

Part Number 400102 Desc GEL-COAT WHIMBLETON WHITE UM LB

Accounting Value 1.040
Last Actual Cost 1.040
Avg Actual Cost 1.045

pounds

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
#246	CO-PLAS, INC.	902919	0.930/	5000	07-30-90	07-30-90	
#246	CO-PLAS, INC.	902667	0.930/	5000	07-20-90	07-23-90	
#246	CO-PLAS, INC.	902350 4	0.930/	5000	06-22-90	07-09-90	
#246	CO-PLAS, INC.	902221	0.930/	5000	06-04-90	06-19-90	
#246	CO-PLAS, INC.	901958	0.930/	5000	05-29-90	05-29-90	
#246	CO-PLAS, INC.	901864	0.980/	5000	05-11-90	05-21-90	
#246	CO-PLAS, INC.	901573	0.930/	5000	04-27-90	05-07-90	
#246	CO-PLAS, INC.	901538	0.930/	10000	04-23-90	04-27-90	
#246	CO-PLAS, INC.	[illegible]	0.930/	10000	04-23-90	04-27-90	
#246	CO-PLAS, INC.	901184	0.930/	5000	04-12-90	04-20-90	

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Part Number 400102 Desc GEL-COAT WHIMBLETON WHITE UM LB

Accounting Value 1.040
Last Actual Cost 1.040
Avg Actual Cost 1.045

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
#246	CO-PLAS, INC.	901303	0.930/	5000	04-05-90	04-19-90	
#246	CO-PLAS, INC.	901163	0.930/	5000	03-29-90	04-03-90	
#246	CO-PLAS, INC.	900937	0.980/	10000	03-09-90	03-19-90	
#246	CO-PLAS, INC.	900795	0.930/	5000	03-12-90	03-12-90	
#246	CO-PLAS, INC.	900765	0.930/	5000	02-27-90	03-01-90	
#246	CO-PLAS, INC.	900587	0.980/	5000	02-16-90	02-21-90	
#246	CO-PLAS, INC.	900522	0.980/	5000	02-06-90	02-12-90	
#246	CO-PLAS, INC.	900329	0.930/	5000	01-25-90	01-31-90	
#246	CO-PLAS, INC.	900063	0.980/	5000	01-16-90	01-19-90	
#246	CO-PLAS, INC.	893034 1	0.980/	10000	11-22-89	12-11-89	

Part Number 400102 Desc GEL-COAT WHIMBLETON WHITE UM LB

Accounting Value 1.040
Last Actual Cost 1.040
Avg Actual Cost 1.045

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
#246	CO-PLAS, INC.	893034	0.930/	10000	11-22-89	12-05-89	
#246	CO-PLAS, INC.	892974 2	0.980/	10000	11-13-89	11-22-89	
#246	CO-PLAS, INC.	892973	1.000/	2131	10-16-89	10-16-89	
#246	CO-PLAS, INC.	892904	1.000/	10000	10-31-89	11-10-89	
#246	CO-PLAS, INC.	892735	1.000/	10000	10-04-89	10-04-89	
#246	CO-PLAS, INC.	892421	1.000/	10000	09-12-89	09-12-89	
#246	CO-PLAS, INC.	892193	1.000/	10000	09-12-89	09-29-89	
#246	CO-PLAS, INC.	892161	1.000/	10000	09-14-89	09-19-89	
#246	CO-PLAS, INC.	892071	1.000/	10000	08-25-89	08-29-89	
#246	CO-PLAS, INC.	892008	1.000/	10000	08-11-89	08-15-89	

Part Number 400102 Desc GEL-COAT WHIMBLETON WHITE UM LB

Accounting Value 1.040
Last Actual Cost 1.040
Avg Actual Cost 1.045

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
#246	CO-PLAS, INC.	891958	1.000/	11500	08-04-89	08-07-89	
#246	CO-PLAS, INC.	891687	1.000/	10000	07-14-89	07-19-89	
#246	CO-PLAS, INC.	891570	1.050/	10000	06-23-89	06-27-89	
#246	CO-PLAS, INC.	891402	1.050/	10000	06-09-89	06-13-89	
#246	CO-PLAS, INC.	891257	1.050/	10000	05-19-89	05-23-89	
#246	CO-PLAS, INC.	891048	1.050/	10420	04-28-89	05-04-89	
#246	CO-PLAS, INC.	890950	1.050/	6000	04-24-89	04-28-89	
#246	CO-PLAS, INC.	890902	1.050/	13579	04-14-89	04-18-89	
#246	CO-PLAS, INC.	890775	1.050/	10000	03-31-89	04-03-89	
#246	CO-PLAS, INC.	890641	1.050/	10000	03-17-89	03-22-89	

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PRO-LINE BOATS, INC. Page 1

Acct MRB Port 0

Screen For PO.HISTORY [illegible] Purchase History for a Part

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Acetone UM [illegible]

Accounting [illegible]

Last Actual Cost [illegible]

gallons Avg Actual Cost 2.138

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
*801	WHITAKER	901616	2.057/	1000	05-04-90	05-07-90	
*801	WHITAKER	901276	2.057/	1000	04-11-90	04-16-90	
*801	WHITAKER	901049	2.057/	1000	03-21-90	03-26-90	
*801	WHITAKER	900931	2.057/	1000	02-28-90	03-02-90	
*801	WHITAKER	900443	1.930/	1100	02-02-90	02-05-90	
*801	WHITAKER	900126	1.930/	1000	01-10-90	01-15-90	
*801	WHITAKER	893141	1.930/	1000	12-[illegible]	12-05-89	
*801	WHITAKER	892844	1.930/	1000	[illegible]	11-13-89	
*801	WHITAKER	892526	[illegible]	1347	[illegible]	[illegible]	
[illegible]	WHITAKER	[illegible]	[illegible]	1100	[illegible]	[illegible]	

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Part Number 400111 Desc ACETONE UM GL

Accounting Value 2.335

Last Actual Cost 2.335

Avg Actual Cost 2.138

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
*999	MISCELLANEOUS	892273	[illegible]	100	[illegible]	[illegible]	
*190	MATRIX RECOVERY SY	892234	[illegible]	850	[illegible]	[illegible]	
*190	MATRIX RECOVERY SY	891853	2.000/	850	08-11-89	08-15-89	
*190	MATRIX RECOVERY SY	891792	2.000/	800	07-28-89	08-01-89	
*190	MATRIX RECOVERY SY	891490	2.000/	800	07-14-89	07-17-89	
*190	MATRIX RECOVERY SY	891453	1.650/	613	06-30-89	07-05-89	
*190	MATRIX RECOVERY SY	891439	1.650/	800	06-16-89	06-19-89	
*190	MATRIX RECOVERY SY	891370	1.650/	400	06-02-89	06-05-89	
*190	MATRIX RECOVERY SY	891261	1.650/	800	05-19-89	05-22-89	
*190	MATRIX RECOVERY SY	891120	1.650/	800	05-05-89	05-09-89	

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Part Number 400111 Desc ACETONE UM GL

Accounting Value 2.335

Last Actual Cost 2.335

Avg Actual Cost 2.138

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries First	Deliveries Last
*190	MATRIX RECOVERY SY	890961	1.650/	850	04-21-89	04-25-89	
*190	MATRIX RECOVERY SY	890825	1.650/	850	04-07-89	04-10-89	
*190	MATRIX RECOVERY SY	890778	1.650/	800	03-31-89	04-03-89	
*190	MATRIX RECOVERY SY	890654	1.650/	1500	03-20-89	03-20-89	
*190	MATRIX RECOVERY SY	890449	1.650/	800	02-24-89	02-28-89	
*190	MATRIX RECOVERY SY	890313	1.650/	800	02-09-89	02-13-89	
[illegible]	MATRIX RECOVERY SY	890162	1.650/	800	01-20-89	01-23-89	
[illegible]	[illegible]	[illegible]	[illegible]	800	[illegible]	01-09-89	
[illegible]	MATRIX RECOVERY SY	[illegible]	[illegible]	600	[illegible]	[illegible]	
*190	MATRIX RECOVERY SY	65702	[illegible]	800	[illegible]	[illegible]	

Part Number 400102 Desc GEL-COAT WHIMBLETON WHITE UM LB

Accounting Value 1.040
Last Actual Cost 1.040
Avg Actual Cost 1.045

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries — First	Last
*246	CO-PLAS, INC.	890439	1.050/	10000	02-[illegible]-89		
*246	CO-PLAS, INC.	890377	1.050/	10000	02-17-89	[illegible]	
*246	CO-PLAS, INC.	890334	1.020/	6595	02-10-89	02-14-89	
*246	CO-PLAS, INC.	890213	1.020/	6600	01-27-89	02-01-89	
*246	CO-PLAS, INC.	890159	1.020/	4400	01-20-89	01-25-89	
*246	CO-PLAS, INC.	890096	1.020/	6476	01-13-89	01-17-89	
*246	CO-PLAS, INC.	65787	1.020/	4000	12-19-88	12-21-88	
*246	CO-PLAS, INC.	65307	1.020/	10000	12-09-88	01-03-89	
*246	CO-PLAS, INC.	65731	1.020/	10000	12-02-88	12-07-88	
*246	CO-PLAS, INC.	65445	1.020/	11762	11-17-88	11-22-88	

Part Number 400102 Desc GEL-COAT WHIMBLETON [illegible] UM LB

Accounting Value 1.040
Last Actual Cost 1.040
Avg Actual Cost 1.045

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries — First	Last
*246	CO-PLAS, INC.	65414	1.020/	10000	11-04-88	11-08-88	
*246	CO-PLAS, INC.	65477	1.020/	2786	[illegible]	10-[illegible]	
*246	CO-PLAS, INC.	65379	1.020/	11660	[illegible]	[illegible]	
*246	CO-PLAS, INC.	65265	1.020/	10000	[illegible]	[illegible]	
*246	CO-PLAS, INC.	65233	1.020/	11049	[illegible]	[illegible]	
*246	CO-PLAS, INC.	65135	1.020/	7500	[illegible]		
*246	CO-PLAS, INC.	64984	[illegible]	10000	[illegible]	[illegible]	
*246	CO-PLAS, INC.	64954	[illegible]	1200	[illegible]	[illegible]	
*246	CO-PLAS, INC.	64707	0.960/	11000	07-15-88	07-19-88	
*246	CO-PLAS, INC.	64651	0.960/	11000	06-24-88	06-28-88	

Part Number 400102 Desc GEL-COAT WHIMBLETON WHITE UM LB

Accounting Value 1.040
Last Actual Cost 1.040
Avg Actual Cost 1.045

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	Deliveries — First	Last
*246	CO-PLAS, INC.	64463	0.960/	1000	06-06-88	06-07-88	
*246	CO-PLAS, INC.	64390	0.960/	10000	05-19-88	05-23-88	

↑ 5-88

460,749 lb / 24 hrs
x 1/2
[illegible]
x 1/2000
= 115.2 tn/

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Part Number 400111 Desc ACETONE UM GL

Accounting Value 2.3[illegible]
Last Actual Cost 2.3[illegible]
Avg Actual Cost 2.1[illegible]

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	First	Last
190	MATRIX RECOVERY SY	65601	1.650/	800	11-11-88	11-14-88	
190	MATRIX RECOVERY SY	65395	1.650/	1150	10-28-88	10-31-88	
190	MATRIX RECOVERY SY	65375A	1.650/	800	10-21-88	10-24-88	
190	MATRIX RECOVERY SY	65276	1.650/	1000	10-13-88	10-14-88	
190	MATRIX RECOVERY SY	65250	1.650/	800	09-28-88	09-28-88	
190	MATRIX RECOVERY SY	65167	1.650/	800	09-16-88	09-19-88	
190	MATRIX RECOVERY SY	64978	1.650/	900	09-02-88	09-06-88	
190	MATRIX RECOVERY SY	64971	1.750/	800	08-19-88	08-19-88	
190	MATRIX RECOVERY SY	64821	1.750/	500	08-05-88	[illegible]	
190	MATRIX RECOVERY SY	64762	1.750/	600	[illegible]	[illegible]	

Part Number 400111 Desc ACETONE UM GL

Accounting Value 2.395
Last Actual Cost 2.395
Avg Actual Cost 2.138

Vendor		PO Nbr	Unit Cost	Quantity	PO Date	-- Deliveries -- First	Last
190	MATRIX RECOVERY SY	64728	1.750/	500	07-08-88	[illegible]	
190	MATRIX RECOVERY SY	64652	1.750/	600	06-24-88	06-27-88	
190	MATRIX RECOVERY SY	64496	1.750/	307	[illegible]	[illegible]	
190	MATRIX RECOVERY SY	6443?	1.750/	800	[illegible]	[illegible]	
190	MATRIX RECOVERY SY	64320A	[illegible]	500	[illegible]	[illegible]	

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gal @

36 717 gal/2yrs
x 1/2
x 6.5 lb/gal
x 1/2000
= 59.7 tpy