Material Name: Marsh 88 Industrial Marker, Uline Valve Marker

*** Section 1 - Chemical Product and Company Identification ***

Distributor Information

Uline 2200 S. Lakeside Dr Waukegan, IL 60085 Phone: 847-473-3000 Fax: 847-473-5157

** Section 2 - Hazards Identification ***

Emergency Overview

Flammable liquids and vapor. May cause eye, skin and respiratory tract irritation. May affect central nervous system. If swallowed, do not induce vomiting. Get immediate medical attention.

Potential Health Effects: Eyes

May cause severe irritation, redness, tearing, and blurred vision.

Potential Health Effects: Skin

May cause mild irritation, defatting of the skin and dermatitis.

Potential Health Effects: Ingestion

May cause gastrointestinal irritation, nausea vomiting and diarrhea.

Potential Health Effects: Inhalation

Overexposure may cause headache, dizziness and other central nervous system effects. May irritate respiratory tract.

HMIS Ratings: Health: 2 Fire: 3 HMIS Reactivity 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
1330-20-7	Xylenes (o-, m-, p- isomers)	70-90
100-41-4	Ethyl benzene	5-15

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Immediately flush eyes with plenty of water. Get medical attention if irritation persists.

First Aid: Skin

Wash with soap and water. Remove contaminated clothing.

First Aid: Ingestion

Get medical attention immediately. Do not induce vomiting unless directed by a physician.

First Aid: Inhalation

Remove to fresh air. If breathing has stopped, apply artificial respiration and call a physician immediately.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.

None

Hazardous Combustion Products

CO, CO2

Extinguishing Media

Alcohol foam, dry chemical, CO2.

Fire Fighting Equipment/Instructions

Use self-contained breathing apparatus and full protective clothing for large or indoor fires. A stream of water may help spread the fire.

NFPA Ratings: Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Material Name: Marsh 88 Industrial Marker, Uline Valve Marker

*** Section 6 - Accidental Release Measures ***

Containment Procedures

None necessary.

Clean-Up Procedures

Remove all ignition sources and ventilate area. Absorb spilled material, and place in a container for disposal (e.g. incineration).

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Dispose of in accordance with all Federal, State and local regulations.

*** Section 7 - Handling and Storage ***

Handling Procedures

Wash thoroughly after handling.

Storage Procedures

Store away from heat, sparks, or flames. Store between 40 deg/120 deg F (4 deg/49 deg C.).

*** Section 8 - Exposure Controls / Personal Protection ***

A: Component Exposure Limits

Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: 100 ppm TWA 150 ppm STEL OSHA: 100 ppm TWA; 435 mg/m3 TWA 150 ppm STEL; 655 mg/m3 STEL

Ethyl benzene (100-41-4)

ACGIH:	100 ppm TWA
	125 ppm STEL
OSHA:	100 ppm TWA; 435 mg/m3 TWA
	125 ppm STEL; 545 mg/m3 STEL
NIOSH:	100 ppm TWA; 435 mg/m3 TWA
	125 ppm STEL; 545 mg/m3 STEL

Engineering Controls

General ventilation is recommended to keep vapors below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Chemical splash goggles should be used when working with chemicals.

Personal Protective Equipment: Skin

Wear impervious gloves if hand contact is anticipated.

Personal Protective Equipment: Respiratory

Use a NIOSH/MSHA approved respirator equipped for organic vapors if exposure limits are exceeded.

Personal Protective Equipment: General

None under normal use conditions.

*** Section 9 - Physical & Chemical Properties ***

Material Name: Marsh 88 Industrial Marker, Uline Valve Marker

Appearance: Physical State: Vapor Pressure: Boiling Boint	•	pH:	Solvent-like odor ND Heavier than air
Bonng Font.	142 deg C)	Meiting Foint.	NA
Solubility (H2O):	5,	Specific Gravity:	0.81
Evaporation Rate:	ND	VOC:	705 g/l
Percent Volatile:	81	Octanol/H2O Coeff.:	ND
Flash Point:	85 deg F (29 deg C)	Flash Point Method:	TCC
Upper Flammability Limit	2	Lower Flammability Limit	1
(UFL):		(LFL):	
Burning Rate:	ND	Auto Ignition:	ND

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Ignition sources

Incompatibility

Strong oxidizing agents, inorganic acids, strong caustics, amines, ammonia.

Hazardous Decomposition

Hydrocarbons

Possibility of Hazardous Reactions

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Dose Effects

Component Analysis - LD50/LC50

Xylenes (o-, m-, p- isomers) (1330-20-7)

Inhalation LC50 Rat: 5000 ppm/4H; Oral LD50 Rat: 4300 mg/kg; Dermal LD50 Rabbit: >1700 mg/kg

Ethyl benzene (100-41-4)

Inhalation LC50 Rat: 17.2 mg/L/4H; Oral LD50 Rat: 3500 mg/kg; Dermal LD50 Rabbit: 15354 mg/kg

Carcinogenicity

Component Carcinogenicity

Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen IARC: Monograph 71 [1999], Monograph 47 [1989] (Group 3 (not classifiable))

Ethyl benzene (100-41-4)

ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans IARC: Monograph 77 [2000] (Group 2B (possibly carcinogenic to humans))

* * * Section 12 - Ecological Information * *

Ecotoxicity

A: General Product Information

Prevent any runoff from reaching natural waterways.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Xylenes (o-, m-, p- isomers) (1330-20-7)

Test & Species

96 Hr LC50 Pimephales promelas

13.4 mg/L [flowthrough] Conditions

Material Name: Marsh 88 Industrial Marker, Uline Valve Marker

96 Hr LC50 Oncorhynchus mykiss	8.05 mg/L [flow- through]	
96 Hr LC50 Lepomis macrochirus	16.1 mg/L [flow- through]	
96 Hr LC50 Pimephales promelas	26.7 mg/L [static	
24 hr EC50 Photobacterium phosphoreum	0.0084 mg/L	
48 Hr EC50 water flea	3.82 mg/L	
48 Hr LC50 Gammarus lacustris	0.6 mg/L	
Ethyl benzene (100-41-4)		
Test & Species		Conditions
96 Hr LC50 Oncorhynchus mykiss	14.0 mg/L [static]	
96 Hr LC50 Pimephales promelas	9.09 mg/L [flow- through]	
96 Hr LC50 Lepomis macrochirus	150.0 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	4.2 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	32 mg/L [static]	
96 Hr LC50 Pimephales promelas	48.5 mg/L [static]	
96 Hr LC50 Poecilia reticulata	9.6 mg/L [static]	
72 Hr EC50 Selenastrum	4.6 mg/L	
capricornutum	400 //	
96 Hr EC50 Selenastrum capricornutum	>438 mg/L	
30 min EC50 Photobacterium phosphoreum	9.68 mg/L	
24 Hr EC50 Nitrosomonas	96 mg/L	
48 Hr EC50 Daphnia magna	1.8-2.4 mg/L	

*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

A: General Product Information

None

B: Component Waste Numbers

Xylenes (o-, m-, p- isomers) (1330-20-7)

RCRA: waste number U239 (Ignitable waste, Toxic waste)

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Printing Ink UN/NA #: 1210 Hazard Class: 3 Packing Group: III

* * * Section 15 - Regulatory Information * * *

US Federal Regulations

Material Name: Marsh 88 Industrial Marker, Uline Valve Marker

Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Xylenes (o-, m-, p- isomers) (1330-20-7)

SARA 313: 1.0 % de minimis concentration

CERCLA: 100 lb final RQ; 45.4 kg final RQ

Ethyl benzene (100-41-4)

SARA 313: 0.1 % de minimis concentration CERCLA: 1000 lb final RQ; 454 kg final RQ

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	Yes	Yes	Yes	Yes	Yes
Ethyl benzene	100-41-4	Yes	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Ethyl benzene	100-41-4	0.1 %

Additional Regulatory Information

Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	DSL	EINECS
Ethyl benzene	100-41-4	Yes	DSL	EINECS

*** Section 16 - Other Information ***

Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Key/Legend

NA - Not Applicable

ND - Not Determined

ACGIH - American Conference of Governmental Industrial Hygienists

- OSHA Occupational Safety and Health Administration
- TLV Threshold Limit Value

PEL - Permissible Exposure Limit

TWA - Time Weighted Average

STEL - Short Term Exposure Limit

Material Safety Data Sheet Material Name: Marsh 88 Industrial Marker, Uline Valve Marker

NTP - National Toxicology Program IARC - International Agency for Research on Cancer