



# Material Safety Data Sheet

Preparation Date: 04-Jan-2010

Revision Date: 29-Dec-2009

Revision Number: 0

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Code** N-69-11WHA  
**Trade Name** H-B EPOXOLINE II WHITE  
**Contact Manufacturer** Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372  
**Emergency Telephone Number** 800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

#### DANGER!

FLAMMABLE LIQUID AND VAPOR.  
HARMFUL IF INHALED.  
CAUSES SKIN AND EYE BURNS.  
HARMFUL OR FATAL IF SWALLOWED.  
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.  
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.  
MAY CAUSE ALLERGIC SKIN REACTION; EFFECTS MAY BE PERMANENT.  
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

#### Potential Health Effects

**Principle Routes of Exposure** Eye contact, Inhalation, Skin contact.

#### **Acute Effects**

**Eyes** Causes burns.  
**Skin** Causes burns. May cause sensitization by skin contact.  
**Inhalation** Irritating to respiratory system.  
**Ingestion** May be harmful if swallowed.

#### **Chronic Effects**

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** Central nervous system. Gastrointestinal tract. Kidney disorders. Liver disorders. Skin disorders.

**Interactions with Other Chemicals** Use of alcoholic beverages may enhance toxic effects.

**Potential Environmental Effects** See Section 12 for additional Ecological information

**Target Organ Effects** Blood, Central nervous system, Central Vascular System, Gastrointestinal tract, Eyes, Kidney, Liver, Lungs, Respiratory system, Skin

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous Components

Component	CAS-No	Weight %
BARIUM SULFATE (TOTAL DUST)	7727-43-7	10 - 30
TALC (RESPIRABLE DUST)	14807-96-6	10 - 30
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	10 - 30
XYLENE	1330-20-7	10.8231
MODIFIED CYCLOALIPHATIC POLYAMINE		5 - 10
BENZYL ALCOHOL	100-51-6	4.8374
N-BUTANOL (SKIN)	71-36-3	4.0825
ETHYL BENZENE	100-41-4	2.5202
AMORPHOUS SILICA	7631-86-9	1 - 5
ISOPHORONE DIAMINE	2855-13-2	1 - 5
ALUMINUM OXIDES	1344-28-1	1 - 5

### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water.
<b>Ingestion</b>	If swallowed, do not induce vomiting. Get medical attention immediately.
<b>Inhalation</b>	Move to fresh air. Oxygen or artificial respiration if needed.

### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Flammable.
<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO <sub>2</sub> ) - Foam - Dry chemical

**Hazardous Decomposition Products** Oxides of carbon, hydrocarbons. Oxides of nitrogen. Aldehydes.

#### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

#### Protective Equipment and Precautions for Firefighters

Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
<b>Methods for Cleaning Up</b>	If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other Information Not applicable

7. HANDLING AND STORAGE

**Handling**

Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

**Storage**

Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	Quebec TWAEV	Ontario TWAEV	Mexico OEL (TWA)
BARIUM SULFATE (TOTAL DUST)	TWA: 10 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 5 ppm TWA: 0.5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>
TALC (RESPIRABLE DUST)	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 3 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>
TITANIUM DIOXIDE (TOTAL DUST)	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup>
XYLENE	TWA: 100 ppm STEL: 150 ppm	TWA: 435 mg/m <sup>3</sup> TWA: 100 ppm STEL: 150 ppm STEL: 655 mg/m <sup>3</sup>	TWA: 434 mg/m <sup>3</sup> TWA: 100 ppm STEL: 150 ppm STEL: 651 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup> STEL: 150 ppm STEL: 650 mg/m <sup>3</sup>	TWA: 435 mg/m <sup>3</sup> TWA: 100 ppm STEL: 150 ppm STEL: 655 mg/m <sup>3</sup>
N-BUTANOL (SKIN)	TWA: 20 ppm	Skin Ceiling: 50 ppm Ceiling: 150 mg/m <sup>3</sup> TWA: 100 ppm TWA: 300 mg/m <sup>3</sup>	Ceiling: 152 mg/m <sup>3</sup> Ceiling: 50 ppm Skin	TWA: 20 ppm	Peak: 150 mg/m <sup>3</sup> Peak: 50 ppm
ETHYL BENZENE	TWA: 100 ppm STEL: 125 ppm	TWA: 435 mg/m <sup>3</sup> TWA: 100 ppm STEL: 545 mg/m <sup>3</sup> STEL: 125 ppm	TWA: 434 mg/m <sup>3</sup> TWA: 100 ppm STEL: 125 ppm STEL: 543 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup> STEL: 125 ppm STEL: 540 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup> STEL: 125 ppm STEL: 545 mg/m <sup>3</sup>
ALUMINUM OXIDES	TWA: 1 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>

**Engineering Measures**

Ensure adequate ventilation, especially in confined areas

**Personal Protective Equipment**

**Skin Protection**

Lightweight protective clothing, Apron, Impervious gloves

**Eye/face Protection**

Goggles. If splashes are likely to occur, wear face-shield.

**Respiratory Protection**

**Use only with adequate ventilation.** Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

**General Hygiene Considerations**

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

**Flash Point**

26°C / 78.0°F

**Boiling Point/Range**

116 - 142°C / 241.0 - 288.0°F

**Upper Exposure Limits**

No information available

**Lower Exposure Limits**

No information available

**Evaporation Rate**

No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapour Pressure	No information available
Vapour Density	No information available
Specific Gravity	1.81046
Density	15.06575
VOC Content (lbs/gal)	2.703
% Volatile by Weight	17.9380
% Volatile by Volume	37.7463

10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable.	<b>Conditions to Avoid</b>	Heat, flames and sparks. Epoxy constituents.
<b>Incompatible Products</b>	Strong oxidizing agents. Bases. Acids. Cleaning solutions such as Chromerge and Aqua Regia.	<b>Possibility of Hazardous Reactions</b>	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

**Component Information**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
TITANIUM DIOXIDE (TOTAL DUST)	10000 mg/kg ( Rat )		
XYLENE	4300 mg/kg ( Rat )	1700 mg/kg ( Rabbit )	47635 mg/L ( Rat ) 4 h 5000 ppm ( Rat ) 4 h
BENZYL ALCOHOL	1230 mg/kg ( Rat )	2000 mg/kg ( Rabbit )	8.8 mg/L ( Rat ) 4 h
N-BUTANOL (SKIN)	790 mg/kg ( Rat )	3400 mg/kg ( Rabbit )	8000 ppm ( Rat ) 4 h 17.7 mg/L ( Rat ) 4 h
ETHYL BENZENE	3500 mg/kg ( Rat )	15354 mg/kg ( Rabbit )	17.2 mg/L ( Rat ) 4 h
AMORPHOUS SILICA	5000 mg/kg ( Rat )	2000 mg/kg ( Rabbit )	2.2 mg/L ( Rat ) 1 h
ISOPHORONE DIAMINE	1030 mg/kg ( Rat )		
ALUMINUM OXIDES	5000 mg/kg ( Rat )		

<b>Irritation</b>	No information available
<b>Corrosivity</b>	No information available
<b>Sensitization</b>	No information available

Chronic Toxicity

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	ACGIH	IARC	NTP	OSHA	Mexico
TITANIUM DIOXIDE (TOTAL DUST)		Group 2B		X	
ETHYL BENZENE	A3	Group 2B		X	

<b>Mutagenic Effects</b>	No information available
<b>Reproductive Effects</b>	No information available
<b>Developmental Effects</b>	No information available
<b>Teratogenicity</b>	No information available
<b>Target Organ Effects</b>	Blood, Central nervous system, Central Vascular System, Gastrointestinal tract, Eyes, Kidney, Liver, Lungs, Respiratory system, Skin.
<b>Endocrine Disruptor Information</b>	No information available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
TALC (RESPIRABLE DUST)		LC50> 100 g/L Brachydanio rerio 96 h		
XYLENE		LC50= 13.4 mg/L Pimephales promelas 96 h LC50= 8.05 mg/L Oncorhynchus mykiss 96 h LC50= 16.1 mg/L Lepomis macrochirus 96 h LC50= 26.7 mg/L Pimephales promelas 96 h	EC50 = 0.0084 mg/L 24 h	EC50 = 3.82 mg/L 48 h LC50 = 0.6 mg/L 48 h
BENZYL ALCOHOL	EC50 = 35 mg/L 3 h	LC50= 460 mg/L Pimephales promelas 96 h LC50= 10 mg/L Lepomis macrochirus 96 h	EC50 = 63.7 mg/L 5 min EC50 = 63.7 mg/L 15 min EC50 = 71.4 mg/L 30 min EC50 = 50 mg/L 5 min	EC50 = 23 mg/L 48 h
N-BUTANOL (SKIN)	EC50 > 500 mg/L 96 h EC50 > 500 mg/L 72 h	LC50= 1510 mg/L Pimephales promelas 96 h LC50= 1740 mg/L Pimephales promelas 96 h LC50= 1200 mg/L Leuciscus idus 96 h	EC50 = 2041.4 mg/L 5 min EC50 = 2186 mg/L 30 min EC50 = 4400 mg/L 17 h EC50 = 3980 mg/L 24 h	EC50 = 1983 mg/L 48 h
ETHYL BENZENE	EC50 = 4.6 mg/L 72 h EC50 > 438 mg/L 96 h	LC50= 14.0 mg/L Oncorhynchus mykiss 96 h LC50= 9.09 mg/L Pimephales promelas 96 h LC50= 150.0 mg/L Lepomis macrochirus 96 h LC50= 4.2 mg/L Oncorhynchus mykiss 96 h LC50= 32 mg/L Lepomis macrochirus 96 h LC50= 48.5 mg/L Pimephales promelas 96 h LC50= 9.6 mg/L Poecilia reticulata 96 h	EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h	EC50 1.8 - 2.4 mg/L 48 h
AMORPHOUS SILICA	EC50 = 440 mg/L 72 h	LC50= 5000 mg/L Brachydanio rerio 96 h		EC50 = 7600 mg/L 48 h
ISOPHORONE DIAMINE	EC50 = 37 mg/L 72 h	LC50= 110 mg/L Leuciscus idus 96 h		EC50 = 42 mg/L 24 h

## 13. DISPOSAL CONSIDERATIONS

### Waste Disposal Methods

Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

### Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

## 14. TRANSPORT INFORMATION

DOT Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.  
**Proper Shipping Name** UN1263, PAINT, 3, PGIII, ERG 128

## 15. REGULATORY INFORMATION

### International Inventories

TSCA	Complies
DSL/NDSL	Does not Comply
EINECS/ELINCS	Does not Comply
CHINA	Does not Comply
ENCS	Does not Comply
KECL	Does not Comply
PICCS	Does not Comply
AICS	Does not Comply

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product contains the following HAPs:

**Component**

XYLENE  
ETHYL BENZENE

**U.S. Federal Regulations**

**SARA 313**

Component	CAS-No	Weight %	SARA 313 - Threshold Values
XYLENE	1330-20-7	10.8231	1.0
N-BUTANOL (SKIN)	71-36-3	4.0825	1.0
ETHYL BENZENE	100-41-4	2.5202	0.1

**SARA 311/312 Hazardous Categorization**

Chronic Health Hazard	No
Acute Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
XYLENE	100 lb			X
ETHYL BENZENE	1000 lb	X	X	X

**CERCLA**

Component	Hazardous Substances RQs	CERCLA EHS RQs
XYLENE	100 lb	
N-BUTANOL (SKIN)	5000 lb	
ETHYL BENZENE	1000 lb	

**U.S. State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65
ETHYL BENZENE	100-41-4	Carcinogen

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island

BARIUM SULFATE (TOTAL DUST)	X	X	X		X
TALC (RESPIRABLE DUST)	X	X	X		X
TITANIUM DIOXIDE (TOTAL DUST)	X	X	X		X
XYLENE	X	X	X	X	X
BENZYL ALCOHOL	X		X		
N-BUTANOL (SKIN)	X	X	X		X
ETHYL BENZENE	X	X	X	X	X
AMORPHOUS SILICA	X		X		
ISOPHORONE DIAMINE		X			
ALUMINUM OXIDES	X	X	X		X

**Other International Regulations**

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

- B2 Flammable liquid
- D2A Very toxic materials
- E Corrosive material



Component	NPRI
XYLENE	Part 1, Group 1 Substance; Part 5 Substance
N-BUTANOL (SKIN)	Part 1, Group 1 Substance
ETHYL BENZENE	Part 1, Group 1 Substance
ALUMINUM OXIDES	Part 1, Group 1 Substance (fibrous form)

**Legend**

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date: 29-Dec-2009

Revision Summary: No information available

HMIS Health 0 Flammability 0 Reactivity 1

**Disclaimer**

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of 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 health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS



# Material Safety Data Sheet

Preparation Date: 04-Jan-2010

Revision Date: 29-Dec-2009

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## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Code** V-69-0069B  
**Trade Name** HI-BLD EPOXOLINE II CONVERTER  
**Contact Manufacturer** Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372  
**Emergency Telephone Number** 800-535-5053 (INFOTRAC) - TNE MEC REGULATORY DEPT: 816-474-3400

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

#### DANGER!

FLAMMABLE LIQUID AND VAPOR.  
HARMFUL IF INHALED.  
MAY CAUSE ALLERGIC SKIN REACTION; EFFECTS MAY BE PERMANENT.  
HARMFUL OR FATAL IF SWALLOWED.  
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.  
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

#### Potential Health Effects

**Principle Routes of Exposure** Eye contact, Inhalation, Skin contact.

#### Acute Effects

**Eyes** Moderately irritating to the eyes.  
**Skin** Irritating to skin. May cause sensitization by skin contact.  
**Inhalation** Irritating to respiratory system.  
**Ingestion** May be harmful if swallowed.

#### Chronic Effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** Central nervous system. Gastrointestinal tract. Kidney disorders. Liver disorders. Skin disorders.

**Interactions with Other Chemicals** Use of alcoholic beverages may enhance toxic effects.

**Potential Environmental Effects** See Section 12 for additional Ecological information

**Target Organ Effects** Blood, Central nervous system, Central Vascular System, Gastrointestinal tract, Eyes, Kidney, Liver, Respiratory system, Skin

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

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#### Hazardous Components

Component	CAS-No	Weight %
TALC (RESPIRABLE DUST)	14807-96-6	30 - 60
BISPHENOL A TYPE EPOXY RESIN		10 - 30
BENZENE, 1-CHLORO-4-(TRIFLUOROMETHYL)-	98-56-6	14.6241
BISPHENOL A TYPE EPOXY RESIN	67924-34-9	10 - 30
BARIUM SULFATE (TOTAL DUST)	7727-43-7	5 - 10
XYLENE	1330-20-7	5.8758
ETHYL BENZENE	100-41-4	0.3127

### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water.
<b>Ingestion</b>	If swallowed, do not induce vomiting. Get medical attention immediately.
<b>Inhalation</b>	Move to fresh air. Oxygen or artificial respiration if needed.

### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Flammable.
<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO <sub>2</sub> ) - Foam - Dry chemical
<b>Hazardous Decomposition Products</b>	Oxides of carbon, hydrocarbons. Aldehydes. Chlorine. Fluorine.

#### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

#### Protective Equipment and Precautions for Firefighters

Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
<b>Methods for Cleaning Up</b>	If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.
<b>Other Information</b>	Not applicable

## 7. HANDLING AND STORAGE

### Handling

Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

### Storage

Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	Quebec TWAEV	Ontario TWAEV	Mexico OEL (TWA)
TALC (RESPIRABLE DUST)	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 3 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>
BENZENE, 1-CHLORO-4-(TRIFLUOROMETHYL)-	TWA: 2.5 mg/m <sup>3</sup>		TWA: 2.5 mg/m <sup>3</sup>	TWA: 2.5 mg/m <sup>3</sup>	
BARIUM SULFATE (TOTAL DUST)	TWA: 10 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 5 ppm TWA: 0.5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>
XYLENE	TWA: 100 ppm STEL: 150 ppm	TWA: 435 mg/m <sup>3</sup> TWA: 100 ppm STEL: 150 ppm STEL: 655 mg/m <sup>3</sup>	TWA: 434 mg/m <sup>3</sup> TWA: 100 ppm STEL: 150 ppm STEL: 651 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup> STEL: 150 ppm STEL: 650 mg/m <sup>3</sup>	TWA: 435 mg/m <sup>3</sup> TWA: 100 ppm STEL: 150 ppm STEL: 655 mg/m <sup>3</sup>
ETHYL BENZENE	TWA: 100 ppm STEL: 125 ppm	TWA: 435 mg/m <sup>3</sup> TWA: 100 ppm STEL: 545 mg/m <sup>3</sup> STEL: 125 ppm	TWA: 434 mg/m <sup>3</sup> TWA: 100 ppm STEL: 125 ppm STEL: 543 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup> STEL: 125 ppm STEL: 540 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup> STEL: 125 ppm STEL: 545 mg/m <sup>3</sup>

### Engineering Measures

Ensure adequate ventilation, especially in confined areas

### Personal Protective Equipment

#### Skin Protection

Lightweight protective clothing, Apron, Impervious gloves

#### Eye/face Protection

If splashes are likely to occur, wear Goggles.

#### Respiratory Protection

**Use only with adequate ventilation.** Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

### General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Flash Point	30°C / 86.0°F
Boiling Point/Range	138 - 142°C / 280.0 - 288.0°F
Upper Exposure Limits	No information available
Lower Exposure Limits	No information available
Evaporation Rate	No information available
Vapour Pressure	No information available
Vapour Density	No information available
Specific Gravity	1.53310
Density	12.75767
VOC Content (lbs/gal)	1.130
% Volatile by Weight	22.0070
% Volatile by Volume	29.8580

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable.	<b>Conditions to Avoid</b>	Heat, flames and sparks. Amines.
<b>Incompatible Products</b>	Strong oxidizing agents. Bases. Acids. Amines.	<b>Possibility of Hazardous Reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
BENZENE, 1-CHLORO-4-(TRIFLUOROMETHYL)-XYLENE	13 g/kg ( Rat )	2 mg/kg ( Rabbit )	33 mg/L ( Rat ) 4 h
ETHYL BENZENE	4300 mg/kg ( Rat )	1700 mg/kg ( Rabbit )	47635 mg/L ( Rat ) 4 h 5000 ppm ( Rat ) 4 h
	3500 mg/kg ( Rat )	15354 mg/kg ( Rabbit )	17.2 mg/L ( Rat ) 4 h

<b>Irritation</b>	No information available
<b>Corrosivity</b>	No information available
<b>Sensitization</b>	No information available

### Chronic Toxicity

#### Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	ACGIH	IARC	NTP	OSHA	Mexico
ETHYL BENZENE	A3	Group 2B		X	

<b>Mutagenic Effects</b>	No information available
<b>Reproductive Effects</b>	No information available
<b>Developmental Effects</b>	No information available
<b>Teratogenicity</b>	No information available
<b>Target Organ Effects</b>	Blood, Central nervous system, Central Vascular System, Gastrointestinal tract, Eyes, Kidney, Liver, Respiratory system, Skin.

#### Endocrine Disruptor Information

No information available

Component	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
BISPHENOL A TYPE EPOXY RESIN	Group III Chemical		

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
TALC (RESPIRABLE DUST)		LC50 > 100 g/L Brachydanio rerio 96 h		
BENZENE, 1-CHLORO-4-(TRIFLUOROMETHYL)-			EC50 = 11.1 mg/L 5 min EC50 = 13.4 mg/L 15 min EC50 = 14.3 mg/L 30 min	EC50 = 3.68 mg/L 48 h

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
XYLENE		LC50= 13.4 mg/L Pimephales promelas 96 h LC50= 8.05 mg/L Oncorhynchus mykiss 96 h LC50= 16.1 mg/L Lepomis macrochirus 96 h LC50= 26.7 mg/L Pimephales promelas 96 h	EC50 = 0.0084 mg/L 24 h	EC50 = 3.82 mg/L 48 h LC50 = 0.6 mg/L 48 h
ETHYL BENZENE	EC50 = 4.6 mg/L 72 h EC50 > 438 mg/L 96 h	LC50= 14.0 mg/L Oncorhynchus mykiss 96 h LC50= 9.09 mg/L Pimephales promelas 96 h LC50= 150.0 mg/L Lepomis macrochirus 96 h LC50= 4.2 mg/L Oncorhynchus mykiss 96 h LC50= 32 mg/L Lepomis macrochirus 96 h LC50= 48.5 mg/L Pimephales promelas 96 h LC50= 9.6 mg/L Poecilia reticulata 96 h	EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h	EC50 1.8 - 2.4 mg/L 48 h

**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Methods** Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated Packaging** Empty containers should be taken for local recycling, recovery or waste disposal

**14. TRANSPORT INFORMATION**

**DOT** Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.  
**Proper Shipping Name** UN1263,PAINT,3,PGIII,ERG 128

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not Comply
CHINA	Does not Comply
ENCS	Does not Comply
KECL	Does not Comply
PICCS	Does not Comply
AICS	Does not Comply

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product contains the following HAPs:

**Component**  
 XYLENE  
 ETHYL BENZENE

**U.S. Federal Regulations**

**SARA 313**

Component	CAS-No	Weight %	SARA 313 - Threshold Values

XYLENE	1330-20-7	5.8758	1.0
ETHYL BENZENE	100-41-4	0.3127	0.1

**SARA 311/312 Hazardous Categorization**

Chronic Health Hazard	No
Acute Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
BENZENE, 1-CHLORO-4-(TRIFLUOROMETHYL)-		X		
XYLENE	100 lb			X
ETHYL BENZENE	1000 lb	X	X	X

**CERCLA**

Component	Hazardous Substances RQs	CERCLA EHS RQs
XYLENE	100 lb	
ETHYL BENZENE	1000 lb	

**U.S. State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65
ETHYL BENZENE	100-41-4	Carcinogen

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
TALC (RESPIRABLE DUST)	X	X	X		X
BENZENE, 1-CHLORO-4-(TRIFLUOROMETHYL)-		X	X		X
BARIUM SULFATE (TOTAL DUST)	X	X	X		X
XYLENE	X	X	X	X	X
ETHYL BENZENE	X	X	X	X	X

**Other International Regulations****Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

B2 Flammable liquid  
D2B Toxic materials



Component	NPRI
XYLENE	Part 1, Group 1 Substance; Part 5 Substance
ETHYL BENZENE	Part 1, Group 1 Substance

**Legend**

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date: 29-Dec-2009

Revision Summary No information available

HMIS                      Health 0                      Flammability 0                      Reactivity 1

**Disclaimer**

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of 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 health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

**End of MSDS**