



Material Safety Data Sheet

Preparation Date: 04-Jan-2010

Revision Date: 29-Dec-2009

Revision Number: 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code F084-11WHA
Trade Name CERAMLON ENV 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. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.
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. Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure.)

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
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	10 - 30
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	11.0619
POLYOXYPROPYLENETRIAMINE	39423-51-3	5 - 10
XYLENE	1330-20-7	8.2145
TALC (RESPIRABLE DUST)	14807-96-6	1 - 5
BENZYL ALCOHOL	100-51-6	3.8572
MODIFIED ALIPHATIC AMINE		1 - 5
N-BUTANOL (SKIN)	71-36-3	3.1536
AMORPHOUS SILICA	7631-86-9	1 - 5
ALUMINUM OXIDES	1344-28-1	1 - 5
ETHYL BENZENE	100-41-4	1.7637

4. FIRST AID MEASURES

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

5. FIRE-FIGHTING MEASURES

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

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

Personal Precautions	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for Cleaning Up 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 ³ TWA: 0.5 mg/m ³	TWA: 5 mg/m ³ TWA: 10 mg/m ³ TWA: 15 mg/m ³	TWA: 10 ppm TWA: 5 ppm TWA: 0.5 mg/m ³	TWA: 10 mg/m ³	TWA: 0.5 mg/m ³
TITANIUM DIOXIDE (TOTAL DUST)	TWA: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 15 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³
CRYSTALLINE SILICA (QUARTZ)	TWA: 0.025 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.10 mg/m ³	TWA: 0.1 mg/m ³
XYLENE	TWA: 100 ppm STEL: 150 ppm	TWA: 435 mg/m ³ TWA: 100 ppm STEL: 150 ppm STEL: 655 mg/m ³	TWA: 434 mg/m ³ TWA: 100 ppm STEL: 150 ppm STEL: 651 mg/m ³	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 150 ppm STEL: 650 mg/m ³	TWA: 435 mg/m ³ TWA: 100 ppm STEL: 150 ppm STEL: 655 mg/m ³
TALC (RESPIRABLE DUST)	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 3 mg/m ³	TWA: 2 mg/m ³	TWA: 2 mg/m ³
N-BUTANOL (SKIN)	TWA: 20 ppm	Skin Ceiling: 50 ppm Ceiling: 150 mg/m ³ TWA: 100 ppm TWA: 300 mg/m ³	Ceiling: 152 mg/m ³ Ceiling: 50 ppm Skin	TWA: 20 ppm	Peak: 150 mg/m ³ Peak: 50 ppm
ALUMINUM OXIDES	TWA: 1 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³ TWA: 15 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³
ETHYL BENZENE	TWA: 100 ppm STEL: 125 ppm	TWA: 435 mg/m ³ TWA: 100 ppm STEL: 545 mg/m ³ STEL: 125 ppm	TWA: 434 mg/m ³ TWA: 100 ppm STEL: 125 ppm STEL: 543 mg/m ³	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 540 mg/m ³	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³

Engineering Measures Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin Protection

Eye/face Protection

Respiratory Protection

Lightweight protective clothing, Apron, Impervious gloves

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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash Point	27°C / 80.0°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
Vapour Pressure	No information available
Vapour Density	No information available
Specific Gravity	1.90545
Density	15.85622
VOC Content (lbs/gal)	2.150
% Volatile by Weight	13.5610
% Volatile by Volume	30.0331

10. STABILITY AND REACTIVITY

Chemical stability	Stable.	Conditions to Avoid	Heat, flames and sparks.
Incompatible Products	Strong oxidizing agents. Bases. Acids.	Possibility of Hazardous Reactions	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)		
CRYSTALLINE SILICA (QUARTZ)	500 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
AMORPHOUS SILICA	5000 mg/kg (Rat)	2000 mg/kg (Rabbit)	2.2 mg/L (Rat) 1 h
ALUMINUM OXIDES	5000 mg/kg (Rat)		
ETHYL BENZENE	3500 mg/kg (Rat)	15354 mg/kg (Rabbit)	17.2 mg/L (Rat) 4 h

Irritation	No information available
Corrosivity	No information available
Sensitization	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	
CRYSTALLINE SILICA (QUARTZ)	A2	Group 1	Known	X	
ETHYL BENZENE	A3	Group 2B		X	

Mutagenic Effects	No information available
Reproductive Effects	No information available
Developmental Effects	No information available

Teratogenicity	No information available
Target Organ Effects	Blood, Central nervous system, Central Vascular System, Gastrointestinal tract, Eyes, Kidney, Liver, Lungs, Respiratory system, Skin.
Endocrine Disruptor Information	No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

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
TALC (RESPIRABLE DUST)		LC50> 100 g/L Brachydanio rerio 96 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
AMORPHOUS SILICA	EC50 = 440 mg/L 72 h	LC50= 5000 mg/L Brachydanio rerio 96 h		EC50 = 7600 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 UN2924, FLAMMABLE LIQUID, CORROSIVE, N.O.S. (XYLENE, POLYOXYPROPYLENETRIAMINE), 3(8), PGIII, ERG 132

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	8.2145	1.0
N-BUTANOL (SKIN)	71-36-3	3.1536	1.0
ETHYL BENZENE	100-41-4	1.7637	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
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	Carcinogen
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
TITANIUM DIOXIDE (TOTAL DUST)	X	X	X		X
CRYSTALLINE SILICA (QUARTZ)	X	X	X		X
XYLENE	X	X	X	X	X
TALC (RESPIRABLE DUST)	X	X	X		X
BENZYL ALCOHOL	X		X		
N-BUTANOL (SKIN)	X	X	X		X
AMORPHOUS SILICA	X		X		
ALUMINUM OXIDES	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
- 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
ALUMINUM OXIDES	Part 1, Group 1 Substance (fibrous form)
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

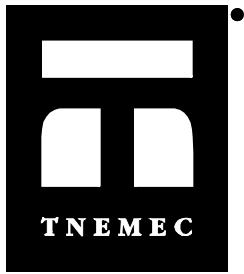
HMIS Health 0 Flammability 0 Reactivity 1

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



Material Safety Data Sheet

Preparation Date: 04-Jan-2010

Revision Date: 29-Dec-2009

Revision Number: 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code F084-0084B
Trade Name CERAMLON ENV 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!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
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 Moderately irritating to the eyes.
Skin Irritating to skin. May cause sensitization by skin contact.
Inhalation Irritating to respiratory system. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.
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. Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure.)

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 %
BISPHENOL A TYPE EPOXY RESIN		30 - 60
BARIUM SULFATE (TOTAL DUST)	7727-43-7	10 - 30
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	9.9087
BISPHENOL A TYPE EPOXY RESIN	67924-34-9	5 - 10
TALC (RESPIRABLE DUST)	14807-96-6	5 - 10
XYLENE	1330-20-7	4.0356
METHYL ISOBUTYL KETONE	108-10-1	2.3989
EPOXY RESIN	30499-70-8	1 - 5

4. FIRST AID MEASURES

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

5. FIRE-FIGHTING MEASURES

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

Hazardous Decomposition Products Oxides of carbon, hydrocarbons. 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

Personal Precautions	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for Cleaning Up	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. Use only in an area containing flame proof equipment. 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 ³ TWA: 0.5 mg/m ³	TWA: 5 mg/m ³ TWA: 10 mg/m ³ TWA: 15 mg/m ³	TWA: 10 ppm TWA: 5 ppm TWA: 0.5 mg/m ³	TWA: 10 mg/m ³	TWA: 0.5 mg/m ³
CRYSTALLINE SILICA (QUARTZ)	TWA: 0.025 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.10 mg/m ³	TWA: 0.1 mg/m ³
TALC (RESPIRABLE DUST)	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 3 mg/m ³	TWA: 2 mg/m ³	TWA: 2 mg/m ³
XYLENE	TWA: 100 ppm STEL: 150 ppm	TWA: 435 mg/m ³ TWA: 100 ppm STEL: 150 ppm STEL: 655 mg/m ³	TWA: 434 mg/m ³ TWA: 100 ppm STEL: 150 ppm STEL: 651 mg/m ³	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 150 ppm STEL: 650 mg/m ³	TWA: 435 mg/m ³ TWA: 100 ppm STEL: 150 ppm STEL: 655 mg/m ³
METHYL ISOBUTYL KETONE	TWA: 50 ppm STEL: 75 ppm	TWA: 205 mg/m ³ TWA: 50 ppm STEL: 300 mg/m ³ STEL: 75 ppm TWA: 100 ppm TWA: 410 mg/m ³	TWA: 205 mg/m ³ TWA: 50 ppm STEL: 307 mg/m ³ STEL: 75 ppm	TWA: 205 mg/m ³ TWA: 50 ppm STEL: 75 ppm	TWA: 50 ppm TWA: 205 mg/m ³ STEL: 307 mg/m ³ STEL: 75 ppm

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.

General Hygiene Considerations

Follow respirator manufacturer's directions for respirator use. 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	42°C / 108.0°F
Boiling Point/Range	114 - 142°C / 237.0 - 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	1.58877
Density	13.22093
VOC Content (lbs/gal)	.904
% Volatile by Weight	6.8350
% Volatile by Volume	12.9013

10. STABILITY AND REACTIVITY

Chemical stability	Stable.	Conditions to Avoid	Heat, flames and sparks. Amines. Primary and secondary amines, acids, alkalis, free radical producing inhibitors.
Incompatible Products	Strong oxidizing agents. Bases. Acids. Amines. Direct heating, dirt of chemical contamination, sunlight, ultraviolet light or ionizing radiation.	Possibility of Hazardous Reactions	May occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
CRYSTALLINE SILICA (QUARTZ)	500 mg/kg (Rat)		
XYLENE	4300 mg/kg (Rat)	1700 mg/kg (Rabbit)	47635 mg/L (Rat) 4 h 5000 ppm (Rat) 4 h
METHYL ISOBUTYL KETONE	2080 mg/kg (Rat)	16000 mg/kg (Rabbit)	8.2 mg/L (Rat) 4 h

Irritation	No information available
Corrosivity	No information available
Sensitization	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
CRYSTALLINE SILICA (QUARTZ)	A2	Group 1	Known	X	

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

Endocrine Disruptor Information No information available

Component	EU - Endocrine Disrupters 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		
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
METHYL ISOBUTYL KETONE	EC50 = 400 mg/L 96 h	LC50= 505 mg/L Pimephales promelas 96 h	EC50 = 79.6 mg/L 5 min	EC50 = 4280.0 mg/L 24 h EC50 = 170 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 PAINT IN OIL

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
METHYL ISOBUTYL KETONE

U.S. Federal Regulations

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values
XYLENE	1330-20-7	4.0356	1.0
METHYL ISOBUTYL KETONE	108-10-1	2.3989	1.0

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

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
XYLENE	100 lb	
METHYL ISOBUTYL KETONE	5000 lb	

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	Carcinogen

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
BARIUM SULFATE (TOTAL DUST)	X	X	X		X
CRYSTALLINE SILICA (QUARTZ)	X	X	X		X
TALC (RESPIRABLE DUST)	X	X	X		X
XYLENE	X	X	X	X	X
METHYL ISOBUTYL KETONE	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

B3 Combustible liquid
 D2B Toxic materials



Component	NPRI
XYLENE	Part 1, Group 1 Substance; Part 5 Substance
METHYL ISOBUTYL KETONE	Part 1, Group 1 Substance; Part 5 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