



Safety Data Sheet

Issue Date 24-May-2022

Revision Date 18-Feb-2022

Revision Number 1

1. IDENTIFICATION

Product identifier

Product Code F456-0451A
Product Name CPP SPRAYLINER EPOXY

Other means of identification

Common Name SERIES 451/456/457, PART A
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use industrial paint.
Uses advised against Consumer use, For professional use only. Not for residential use.

Details of the supplier of the safety data sheet

Manufacturer Address Tnemec Company, Inc. 123 W. 23rd Avenue, North Kansas City, MO 64116-3094 (816) 474-3400
Distributor Tnemec Company, Inc. 86 Boul, des Entreprises, Ste. 203, Boisbriand, Quebec Canada J7G 2T3

Emergency telephone number

Company Phone Number Tnemec Regulatory Dept: 816-474-3400
24 Hour Emergency Phone Number 800-535-5053 (Infotrac)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 1

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements

Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause cancer
Causes damage to organs through prolonged or repeated exposure

**Appearance** viscous liquid**Physical state** liquid**Odor** epoxy**Precautionary Statements****Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves
 Do not breathe dust/fume/gas/mist/vapors/spray
 Do not eat, drink or smoke when using this product

Response

IF exposed or concerned: Get medical advice/attention
 specific treatment
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 Take off contaminated clothing and wash before reuse
 If skin irritation or rash occurs: Get medical advice/attention

Storage

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other information**

Toxic to aquatic life with long lasting effects

Acute Toxicity 43.20351008 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
EPOXY RESIN (LER)	25068-38-6	30 - <60%
EPOXY RESIN (LER)	25085-99-8	30 - <60%
ALKYL GLYCIDYL ETHER	68609-97-2	1 - <10%
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	1 - <10%
NON-HAZARDOUS THIXOTROPE	-	1 - <10%
AMORPHOUS SILICA	7631-86-9	0.1 - <1%

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**Description of first aid measures****General advice**

If symptoms persist, call a physician.

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	If swallowed, do not induce vomiting. Get medical attention immediately.
Self-protection of the first aider	Use personal protective equipment. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide. Foam. Dry chemical.

Unsuitable extinguishing media High volume water jet.

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

Hazardous combustion products Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Halogenated compounds. Phenolics.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation. Remove all sources of ignition.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

Methods for cleaning up Pick up and transfer to properly labelled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with eyes, skin and clothing. Remove and wash contaminated clothing before re-use. Keep away from open flames, hot surfaces and sources of ignition. Do not breathe vapours or spray mist. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not ingest. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

Incompatible products Incompatible with oxidizing agents. Acids. Bases. Amines.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust	5000 mg/m ³
AMORPHOUS SILICA 7631-86-9	-	-	3000 mg/m ³

Appropriate engineering controls

Engineering measures Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH's Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Safety glasses with side-shields. If splashes are likely to occur, wear face-shield.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA 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

Information on basic physical and chemical properties

Physical state	liquid	Odor	epoxy
Appearance	viscous liquid	Odor threshold	No information available
Color	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH		No data available
Melting point / freezing point	No data available	
Boiling point / boiling range		No information available

Flash point	> 110 °C / > 230 °F	Pensky Martens - Closed Cup
Evaporation rate		No data available
Flammability (solid, gas)	No data available	
Flammability Limit in Air		No data available
Upper flammability limit	NA	
Lower flammability limit	NA	
Vapor pressure		
Vapor density		No data available
Specific gravity	1.17833	g/cm3
Water solubility	Insoluble in cold water	
Solubility in other solvents		No data available
Partition coefficient: n-octanol/water		No data available
Autoignition temperature	No data available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity		No data available

Other Information

Molecular weight	No information available
Density	9.82726 lbs/gal
Volatile organic compounds (VOC) content	0.00282 lbs/gal
Total volatiles weight percent	0.0287 %
Total volatiles volume percent	0.0308 %
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Incompatible with oxidizing agents, Acids, Bases, Amines

Hazardous decomposition products

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Phenolics. Halogenated compounds.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation	May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. May cause irritation.
Eye contact	Causes serious eye irritation.
Skin contact	Irritating to skin. Product is or contains a sensitizer.
Ingestion	Harmful if swallowed.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
EPOXY RESIN (LER) 25068-38-6	= 11400 mg/kg (Rat)	-	-
ALKYL GLYCIDYL ETHER 68609-97-2	= 17100 mg/kg (Rat)	> 3987 mg/kg (Rabbit)	-
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	> 10000 mg/kg (Rat)	-	-
AMORPHOUS SILICA 7631-86-9	= 7900 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h

Information on toxicological effects

Symptoms May cause respiratory irritation. Irritating to eyes and skin. May cause allergic skin reaction.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Avoid repeated exposure. Prolonged exposure may cause chronic effects. Skin sensitizer.

Sensitization Product is or contains a sensitizer.

Mutagenicity No information available.

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

Chemical name	ACGIH	IARC	NTP	OSHA
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7		Group 2B	-	X
AMORPHOUS SILICA 7631-86-9		Group 3	Known	

Reproductive effects No information available.

STOT - single exposure No information available

STOT - repeated exposure No information available

Target organ effects respiratory system.

Aspiration hazard No information available.

Acute Toxicity 43.20351008 % of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
EPOXY RESIN (LER) 25085-99-8	11 mg/L 72 hr	2 mg/L 96 hr Oncorhynchus mykiss	1.8 mg/L 48h
AMORPHOUS SILICA 7631-86-9	440: 72 h Pseudokirchneriella subcapitata mg/L EC50	5000: 96 h Brachydanio rerio mg/L LC50 static	7600: 48 h Ceriodaphnia dubia mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in Environmental Media

Chemical name	log Pow
EPOXY RESIN (LER) 25085-99-8	3

Other Adverse Effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Methods	It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name	PAINT & RELATED MATERIAL NOT REGULATED
Additional Information	The above transport information is for non-bulk packaging only (≤ 119 gallons). For additional information, contact Tnemec Traffic Department at 816-474-3400 or traffic@tnemec.com.

IATA

UN/ID no.	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin)
Hazard Class	9
Packing Group	III
ERG Code	171

IMDG/IMO

UN/ID no.	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin)
Hazard Class	9
Packing Group	III
EmS No.	F-A,S-F
Marine Pollutant	Yes

Additional Information

Call TNE MEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Does Not Comply
IECSC	Complies
KECL	Complies
PICCS	Does Not Comply
AICS	Does Not Comply

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any

chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

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

California Prop. 65

WARNING: This product can expose you to the following chemicals which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Chemical name	California Prop. 65
TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7	Carcinogen
AMORPHOUS SILICA - 7631-86-9	Carcinogen

California SCAQMD Rule 443

Does Not Contain Photochemically Reactive Solvent

State Right-to-Know

Chemical name	New Jersey	Massachusetts	Pennsylvania
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	X	X	X
AMORPHOUS SILICA 7631-86-9		X	X

16. OTHER INFORMATION

NFPA	Health 2	Flammability 0	Instability 0	Physical hazard -
HMIS (Hazardous Material Information System)	Health 2*	Flammability 0	Reactivity 0	

Prepared By Tnemec Regulatory Dept: 816-474-3400
 Revision Date 18-Feb-2022

Revision Summary
 1 9 5 6 7 10 8 11 15 14

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 SDS



Safety Data Sheet

Issue Date 24-May-2022

Revision Date 18-Feb-2022

Revision Number 1

1. IDENTIFICATION

Product identifier

Product Code F456-5032B
Product Name CPP SPRAYLINER GRAY

Other means of identification

Common Name SERIES 456, PART B
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use industrial paint.
Uses advised against Consumer use, For professional use only. Not for residential use.

Details of the supplier of the safety data sheet

Manufacturer Address Tnemec Company, Inc. 123 W. 23rd Avenue, North Kansas City, MO 64116-3094 (816) 474-3400
Distributor Tnemec Company, Inc. 86 Boul, des Entreprises, Ste. 203, Boisbriand, Quebec Canada J7G 2T3

Emergency telephone number

Company Phone Number Tnemec Regulatory Dept: 816-474-3400
24 Hour Emergency Phone Number 800-535-5053 (Infotrac)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements

Causes serious eye damage
May cause an allergic skin reaction
May cause cancer
May damage fertility or the unborn child
Causes damage to organs
Causes damage to organs through prolonged or repeated exposure

**Appearance** viscous liquid**Physical state** liquid**Odor** No information available**Precautionary Statements****Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves
 Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product

Response

Specific treatment (see .? on this label)
 IF exposed: Call a POISON CENTER or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse

Storage

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other information**

May be harmful if swallowed
 Causes mild skin irritation
 Toxic to aquatic life
 Toxic to aquatic life with long lasting effects
 Acute Toxicity 25.18208794 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
GLASS OXIDE	65997-17-3	1 - <10%
M-XYLENEDIAMINE	1477-55-0	1 - <10%
BENZYL ALCOHOL	100-51-6	1 - <10%
TOFA, REACTION PRODUCTS WITH TEPA	68953-36-6	1 - <10%
4-TERT-BUTYLPHENOL	98-54-4	1 - <10%
1,6-HEXANEDIAMINE, 2,2,4-TRIMETHYL-	3236-53-1	1 - <10%
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	1 - <10%
NON-HAZARDOUS THIXOTROPE	-	1 - <10%
TETRAETHYLENEPENTAMINE	112-57-2	0.1 - <1%
EPOXY RESIN	80-05-7	0.1 - <1%
DIETHYLENE TRIAMINE	111-40-0	0.1 - <1%

CELLULOSE	9004-34-6	0.1 - <1%
AMORPHOUS SILICA	7631-86-9	0.1 - <1%

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice	If symptoms persist, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	If swallowed, do not induce vomiting. Get medical attention immediately.
Self-protection of the first aider	Use personal protective equipment. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide. Foam. Dry chemical.

Unsuitable extinguishing media High volume water jet.

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

Hazardous combustion products Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Oxides of nitrogen. Carbon oxides. Aldehydes. Nitric acid, nitrosamine. Chlorine.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation. Remove all sources of ignition.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

Methods for cleaning up Pick up and transfer to properly labelled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with eyes, skin and clothing. Remove and wash contaminated clothing before re-use. Keep away from open flames, hot surfaces and sources of ignition. Do not breathe vapours or spray mist. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not ingest. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a cool, well-ventilated place. Keep out of the reach of children.

Incompatible products calcium. Zinc. Hydroxyl Compounds. Nitrates. Oxides of nitrogen. Organic Acids. Mineral acids. sodium hypochlorite. Peroxides. Oxidizing materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
GLASS OXIDE 65997-17-3	TWA: 1 fiber/cm ³ respirable fibers: length >5 µm, aspect ratio ≥3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination TWA: 5 mg/m ³ inhalable particulate matter	-	
M-XYLENEDIAMINE 1477-55-0	Skin Ceiling: 0.018 ppm	-	
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust	5000 mg/m ³
DIETHYLENE TRIAMINE 111-40-0	TWA: 1 ppm Skin	-	
CELLULOSE 9004-34-6	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	
AMORPHOUS SILICA 7631-86-9	-	-	3000 mg/m ³

Appropriate engineering controls

Engineering measures Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH's Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Use chemical resistant splash type goggles. If splashes are likely to occur, wear face-shield.

Skin and body protection	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Respiratory protection	Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA 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

Information on basic physical and chemical properties

Physical state	liquid	Odor	No information available
Appearance	viscous liquid	Odor threshold	No information available
Color	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH		No data available
Melting point / freezing point	No data available	
Boiling point / boiling range		No information available
Flash point	> 110 °C / > 230 °F	Pensky Martens - Closed Cup
Evaporation rate		No data available
Flammability (solid, gas)	No data available	
Flammability Limit in Air		No data available
Upper flammability limit	NA	
Lower flammability limit	NA	
Vapor pressure		No data available
Vapor density		No data available
Specific gravity	1.17835	g/cm ³
Water solubility	Insoluble in cold water	
Solubility in other solvents		No data available
Partition coefficient: n-octanol/water		No data available
Autoignition temperature	No data available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity		No data available

Other Information

Molecular weight	No information available
Density	9.82742 lbs/gal
Volatile organic compounds (VOC) content	0.07389 lbs/gal
Total volatiles weight percent	0.7519 %
Total volatiles volume percent	0.8476 %
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks. Exposure to air or moisture over prolonged periods. Extremes of temperature and direct sunlight. Do not freeze.

Incompatible materials

calcium, Zinc, Hydroxyl Compounds, Nitrates, Oxides of nitrogen, Organic Acids, Mineral acids, sodium hypochlorite, Peroxides, Oxidizing materials

Hazardous decomposition products

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Oxides of nitrogen. Carbon oxides. Aldehydes. Nitric acid, nitrosamine. Chlorine.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation	May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. Irritating to respiratory system.
Eye contact	Causes serious eye damage.
Skin contact	Contact causes severe skin irritation and possible burns. Skin sensitizer.
Ingestion	Harmful if swallowed.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
M-XYLENEDIAMINE 1477-55-0	= 660 mg/kg (Rat)	= 2 g/kg (Rabbit)	= 700 ppm (Rat) 1 h
BENZYL ALCOHOL 100-51-6	= 1230 mg/kg (Rat)	= 2 g/kg (Rabbit)	= 8.8 mg/L (Rat) 4 h
4-TERT-BUTYLPHENOL 98-54-4	= 4000 mg/kg (Rat)	= 2318 mg/kg (Rabbit)	-
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	> 10000 mg/kg (Rat)	-	-
TETRAETHYLENEPENTAMINE 112-57-2	= 3990 mg/kg (Rat)	= 660 µL/kg (Rabbit)	-
EPOXY RESIN 80-05-7	= 3300 mg/kg (Rat)	= 3 mL/kg (Rabbit)	> 170 mg/m ³ (Rat) 6 h
DIETHYLENE TRIAMINE 111-40-0	= 1080 mg/kg (Rat)	= 672 mg/kg (Rabbit)	= 70 mg/L (Rat) 4 h
CELLULOSE 9004-34-6	> 5 g/kg (Rat)	> 2 g/kg (Rabbit) > 2000 mg/kg (Rabbit)	> 5800 mg/m ³ (Rat) 4 h
AMORPHOUS SILICA 7631-86-9	= 7900 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h

Information on toxicological effects

Symptoms Causes skin and eye burns. May cause allergic skin reaction. May cause respiratory irritation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Avoid repeated exposure. Prolonged exposure may cause chronic effects. Contains a known or suspected reproductive toxin. Skin sensitizer. Causes burns to skin and eyes.

Sensitization Product is or contains a sensitizer.

Mutagenicity No information available.

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

Chemical name	ACGIH	IARC	NTP	OSHA
GLASS OXIDE 65997-17-3		Group 3	-	

TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7		Group 2B	-	X
CELLULOSE 9004-34-6		Group 1	Known	
AMORPHOUS SILICA 7631-86-9		Group 3	Known	

Reproductive effects Product is or contains a chemical which is a known or suspected reproductive hazard.
STOT - single exposure No information available
STOT - repeated exposure No information available
Target organ effects Eyes, kidney, liver, respiratory system, Skin.
Aspiration hazard No information available.

Acute Toxicity 25.18208794 % of the mixture consists of ingredient(s) of unknown toxicity.
The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
M-XYLENEDIAMINE 1477-55-0	-	87.6: 96 h <i>Oryzias latipes</i> mg/L LC50 semi-static	-
BENZYL ALCOHOL 100-51-6	35: 3 h <i>Anabaena variabilis</i> mg/L EC50	10: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 460: 96 h <i>Pimephales promelas</i> mg/L LC50 static	23: 48 h water flea mg/L EC50
4-TERT-BUTYLPHENOL 98-54-4	11.2: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	4.71 - 5.62: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 6.9: 96 h <i>Cyprinus carpio</i> mg/L LC50 static	3.4 - 4.5: 48 h <i>Daphnia magna</i> mg/L EC50 Static 3.9: 48 h <i>Daphnia magna</i> mg/L EC50
TETRAETHYLENEPENTAMINE 112-57-2	2.1: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50	420: 96 h <i>Poecilia reticulata</i> mg/L LC50 static	24.1: 48 h <i>Daphnia magna</i> mg/L EC50
EPOXY RESIN 80-05-7	2.5: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50	3.6 - 5.4: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 4.0 - 5.5: 96 h <i>Pimephales promelas</i> mg/L LC50 static 4: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 9.9: 96 h <i>Brachydanio rerio</i> mg/L LC50 static	9.2 - 11.4: 48 h <i>Daphnia magna</i> mg/L EC50 Static 10.2: 48 h <i>Daphnia magna</i> mg/L EC50 3.9: 48 h <i>Daphnia magna</i> mg/L EC50
DIETHYLENE TRIAMINE 111-40-0	1164: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 345.6: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 592: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50	1014: 96 h <i>Poecilia reticulata</i> mg/L LC50 semi-static 248: 96 h <i>Poecilia reticulata</i> mg/L LC50 static 430: 96 h <i>Leuciscus idus</i> mg/L LC50 semi-static	16: 48 h <i>Daphnia magna</i> mg/L EC50 37: 24 h <i>Daphnia magna</i> mg/L EC50
AMORPHOUS SILICA 7631-86-9	440: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50	5000: 96 h <i>Brachydanio rerio</i> mg/L LC50 static	7600: 48 h <i>Ceriodaphnia dubia</i> mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in Environmental Media

Chemical name	log Pow
M-XYLENEDIAMINE 1477-55-0	0.18
BENZYL ALCOHOL 100-51-6	1.1
4-TERT-BUTYLPHENOL 98-54-4	2.44
TETRAETHYLENEPENTAMINE 112-57-2	.99
EPOXY RESIN	2.2

80-05-7	
DIETHYLENE TRIAMINE 111-40-0	-1.3

Other Adverse Effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Methods It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Chemical name	CAWAST
DIETHYLENE TRIAMINE 111-40-0	Toxic

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name PAINT & RELATED MATERIAL NOT REGULATED
Additional Information The above transport information is for non-bulk packaging only (≤ 119 gallons). For additional information, contact Tnemec Traffic Department at 816-474-3400 or traffic@tnemec.com.

IATA

UN/ID no. UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s. (4-TERT-BUTYLPHENOL)
Hazard Class 9
Packing Group III
ERG Code 171

IMDG/IMO

UN/ID no. UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s. (4-TERT-BUTYLPHENOL)
Hazard Class 9
Packing Group III
EmS No. F-A,S-F
Marine Pollutant Yes

Additional Information

Call TNEMEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDL Complies
EINECS/ELINCS Complies
ENCS Does Not Comply
IECSC Complies
KECL Complies
PICCS Does Not Comply
AICS Does Not Comply

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECS - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

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

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values
EPOXY RESIN - 80-05-7	1.0

SARA 311/312 Hazardous

Categorization

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

California Prop. 65

WARNING: This product can expose you to the following chemicals which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Chemical name	California Prop. 65
TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7	Carcinogen
CELLULOSE - 9004-34-6	Carcinogen
AMORPHOUS SILICA - 7631-86-9	Carcinogen

California SCAQMD Rule 443

Contains Photochemically Reactive Solvent

State Right-to-Know

Chemical name	New Jersey	Massachusetts	Pennsylvania
M-XYLENEDIAMINE 1477-55-0	X	X	X
BENZYL ALCOHOL 100-51-6		X	X
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	X	X	X
TETRAETHYLENEPENTAMINE 112-57-2	X	X	X
EPOXY RESIN 80-05-7	X	X	X
DIETHYLENE TRIAMINE 111-40-0	X	X	X
CELLULOSE 9004-34-6	X	X	X
AMORPHOUS SILICA 7631-86-9		X	X

16. OTHER INFORMATION

NFPA	Health 3	Flammability 0	Instability 0	Physical hazard -
HMIS (Hazardous Material Information System)	Health 3*	Flammability 0	Reactivity 0	

Prepared By Tnemec Regulatory Dept: 816-474-3400
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Revision Summary
1 9 4 5 6 7 10 8 11 15 14

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 SDS