



Material Safety Data Sheet

Print Date 27-Apr-2011

Revision Date 27-Apr-2011

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Common name SERIES S247 PART A
Product code S247-0000A
Trade name MCU CLEAR
Product Class MOISTURE CURED URETHANE PAINT

Manufacturer Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone 800-535-5053 (INFOTRAC) - TNE MEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

HARMFUL OR FATAL IF SWALLOWED.
HARMFUL IF INHALED.
MAY CAUSE LUNG INJURY.
MAY CAUSE ALLERGIC RESPIRATORY REACTION; EFFECTS MAY BE PERMANENT.
MAY CAUSE ALLERGIC SKIN REACTION; EFFECTS MAY BE PERMANENT.
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. Risk of serious damage to eyes.
Skin Irritating to skin. May cause sensitization by skin contact.
Inhalation Irritating to respiratory system. May cause allergic respiratory reaction.
Ingestion May be harmful if swallowed.

Chronic effects

Avoid repeated exposure.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available

Interactive effects No information available

Potential environmental effects See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Component	CAS-No	Weight %
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3. COMPOSITION/INFORMATION ON INGREDIENTS

HEXAMETHYLENE DIISOCYANATE (HDI) POLYMER	28182-81-2	60 - 100
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	822-06-0	0.1 - 1

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	No information available.
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. Oxides of nitrogen. Hydrogen cyanide.

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.

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

Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage

Close container after each use. 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)
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	: 0.005 ppm TWA		TWA: 0.005 ppm TWAEV; 0.034 mg/m ³ TWAEV	TWA: 0.005 ppm TWA (designated substance regulation, listed under Isocyanates, organic compounds); 0.005 ppm TWA (applies to workplaces to which the designated substance regulation does not apply) CEV: 0.02 ppm Ceiling (designated substances regulation)	

Engineering measures

Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection

Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection

Safety glasses with side-shields

Respiratory protection

INDIVIDUALS WITH LUNG OR BREATHING PROBLEMS OR PRIOR REACTION TO ISOCYANATES MUST NOT BE EXPOSED TO VAPOR OR SPRAY MIST. Do not breathe vapor or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. An airline respirator (TC 19C NIOSH/MSHA) is recommended. A vapor-particulate respirator (TC 23C NIOSH/MSHA) may be appropriate where air monitoring demonstrates vapors are less than ten times the applicable exposure limits and the isocyanate concentration is less than its applicable exposure limit. The use of an air-supplied respirator is mandatory whenever the airborne concentration of isocyanate monomer is unknown.

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	Not applicable
Boiling range	No information available
Upper explosion limit	No information available
Lower explosion limit	No information available
Evaporation rate	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	1.13187 g/cm ³
Density	9.41886 lbs/gal
Volatile organic compounds (VOC) content	.000 lbs/gal
Volatile by weight	.0000 %
Volatile by volume	.0000 %

10. STABILITY AND REACTIVITY

10. STABILITY AND REACTIVITY

Chemical stability	Stable.	Conditions to avoid	Heat, flames and sparks. Amines.
Incompatible products	Water, alcohols, amines, strong bases, metal components, surface active materials.	Possibility of hazardous reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
HEXAMETHYLENE DIISOCYANATE (HDI) POLYMER			18500 mg/m ³ (Rat) 1 h
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	710 mg/kg (Rat)	570 mg/kg (Rabbit)	0.15 mg/L (Rat) 4 h 0.29 mg/L (Rat) 1 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

Mutagenicity	No information available
Reproductive effects	No information available
Developmental effects	No information available
Teratogenicity	No information available
Target Organ Effects	No information available
Endocrine Disruptor Information	No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER		LC50= 26.1 mg/L Brachydanio rerio 96 h	EC50 = 53.2 mg/L 5 min EC50 = 25.5 mg/L 15 min EC50 = 15.7 mg/L 30 min	

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	Complies
CHINA	Complies
ENCS	Does not Comply
KECL	Complies
PICCS	Complies
AICS	Complies

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

Component
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER

United States of America Federal Regulations**SARA 313**

Component	CAS-No	Weight %	SARA 313 - Threshold Values
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	822-06-0	0.1 - 1	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)

SARA 311/312 Hazardous Categorization

Chronic Health Hazard	yes
Acute Health Hazard	yes
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

CERCLA**United States of America State Regulations****California Prop. 65**

This product contains the following Proposition 65 chemicals:

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	X	X		X	

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification

D2A Very toxic materials

**Legend**

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION**Revision Date** 27-Apr-2011**Revision Note** No information available

HMIS (Hazardous Material Information System)	Health 3*	Flammability 1	Reactivity 1
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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

Print Date 06-May-2011

Revision Date 06-May-2011

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Common name	SERIES S247 PART B
Product code	S247-0247B
Trade name	MCU PART B
Product Class	MOISTURE CURED URETHANE PAINT
Manufacturer	Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone	800-535-5053 (INFOTRAC) - TNE MEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

COMBUSTIBLE LIQUID AND VAPOR.
HARMFUL OR FATAL IF SWALLOWED.
HARMFUL IF INHALED.
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.
Inhalation	Irritating to respiratory system.
Ingestion	May be harmful if swallowed. Do not induce vomiting; may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

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. Kidney disorders. Liver disorders. Skin disorders. Respiratory disorders.

Interactive effects 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, Eyes, Kidney, Liver, Respiratory system, Skin, Urinary Tract

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Component	CAS-No	Weight %
DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	88917-22-0	60 - 100
PROPRIETARY ESTER		1 - 5
TIN (ORGANIC COMPOUNDS, AS TIN)	77-58-7	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.

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

Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage

Close container after each use. 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)
DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE				TWA: 100 ppm TWA; 776 mg/m ³ TWA STEL: 150 ppm STEL; 1164 mg/m ³ STEL	
TIN (ORGANIC COMPOUNDS, AS TIN)	TWA: 0.1 mg/m ³		TWA: 0.1 mg/m ³ STEL: 0.2 mg/m ³ Skin	TWA: 0.1 mg/m ³ Skin	TWA: 0.1 mg/m ³ STEL: 0.2 mg/m ³

Engineering measures

Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection

Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection

Safety glasses with side-shields

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	85°C / 185.0°F
Boiling range	No information available
Upper explosion limit	No information available
Lower explosion limit	No information available
Evaporation rate	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	.98293 g/cm ³
Density	8.17945 lbs/gal
Volatile organic compounds (VOC) content	7.043 lbs/gal
Volatile by weight	86.1060 %
Volatile by volume	86.7359 %

10. STABILITY AND REACTIVITY

10. STABILITY AND REACTIVITY

Chemical stability	Stable.	Conditions to avoid	Heat, flames and sparks.
Incompatible products	Strong oxidizing agents. Acids.	Possibility of hazardous reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
TIN (ORGANIC COMPOUNDS, AS TIN)	175 mg/kg (Rat)		

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

Mutagenicity	No information available
Reproductive effects	No information available
Developmental effects	No information available
Teratogenicity	No information available
Target Organ Effects	Blood, Central nervous system, Eyes, Kidney, Liver, Respiratory system, Skin, Urinary Tract.
Endocrine Disruptor Information	No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
TIN (ORGANIC COMPOUNDS, AS TIN)			EC50 = 0.576 mg/L 30 min	

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.
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Proper shipping name PAINT IN OIL

15. REGULATORY INFORMATION

International Inventories

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

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

SARA 313

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

CERCLA

United States of America State Regulations

California Prop. 65

This product contains the following Proposition 65 chemicals:

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
TIN (ORGANIC COMPOUNDS, AS TIN)					X

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

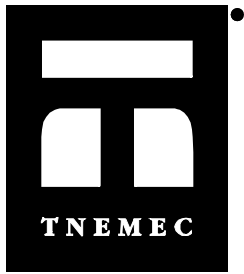
WHMIS Classification

B3 Combustible liquid
 D2B Toxic materials



Legend

NPRI - National Pollutant Release Inventory



Material Safety Data Sheet

Print Date 27-Apr-2011

Revision Date 27-Apr-2011

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Common name SERIES S248 PART C
Product code S248-0248C
Trade name MCU HIGH TRAFFIC FLOORING AGGR
Product Class ALUMINUM OXIDE

Manufacturer TNE MEC Company, Inc.
123 West 23rd Avenue
North Kansas City, MO 64116-3064
816-474-3400

Emergency telephone 800-535-5053 (INFOTRAC) - TNE MEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

HARMFUL BY INHALATION.
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 May cause slight irritation.
Skin Irritating to skin.
Inhalation Irritating to respiratory system.
Ingestion May be harmful if swallowed.

Chronic effects

Avoid repeated exposure.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Skin disorders. Respiratory disorders.

Interactive effects No information available.

Potential environmental effects See Section 12 for additional Ecological Information

Target Organ Effects Eyes, Respiratory system, Skin

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Component	CAS-No	Weight %
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3. COMPOSITION/INFORMATION ON INGREDIENTS

ALUMINUM OXIDES	1344-28-1	60 - 100
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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 removing all contaminated clothes and shoes.
Ingestion:	If swallowed, do not induce vomiting. Get medical attention immediately.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Flammable properties	No information available
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Hazardous decomposition products	None under normal use.

Specific hazards arising from the chemical

Keep product and empty container away from heat and sources of ignition

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	Avoid dust formation. Use personal protective equipment.
Environmental precautions	No special environmental precautions required.
Methods for cleaning up	Shovel or sweep up. Take up mechanically and collect in suitable container for disposal.
Methods for containment	Avoid breathing dust. Use a dust mask or respirator. Clean up using vacuum cleaner or floor sweeping compound. Shovel into container for disposal.
Other information	Not applicable

7. HANDLING AND STORAGE

Handling

Handle in accordance with good industrial hygiene and safety practice.

Storage

Keep containers tightly closed in a cool, well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	ACGIH TLV	OSHA PEL	Quebec TWAEV	Ontario TWAEV	Mexico OEL (TWA)
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ALUMINUM OXIDES	TWA: 1 mg/m ³	: 10 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) : 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)	TWA: 10 mg/m ³ TWAEV (total dust, containing no asbestos and less than 1% crystalline silica, as Al)	TWA: 10 mg/m ³	: 10 mg/m ³ TWA
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Engineering measures

Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection

Wear protective gloves/clothing.

Eye/face protection

Tightly fitting safety 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	Not applicable
Boiling range	No information available
Upper explosion limit	No information available
Lower explosion limit	No information available
Evaporation rate	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	3.99929 g/cm ³
Density	33.28009 lbs/gal
Volatile organic compounds (VOC) content	.000 lbs/gal
Volatile by weight	.0000 %
Volatile by volume	.0000 %

10. STABILITY AND REACTIVITY

Chemical stability	Stable.	Conditions to avoid	Avoid dust formation.
Incompatible products	No information available	Possibility of hazardous reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
ALUMINUM OXIDES	5000 mg/kg (Rat)		

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

Mutagenicity

No information available

Reproductive effects

No information available

Developmental effects

No information available

Teratogenicity

No information available

Target Organ Effects

Eyes, Respiratory system, Skin.

Endocrine Disruptor Information

No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

In accordance with local and national 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

SILCA,N.O.I.-20-P.C.F.,GREATER (ITEM 176370,Sub 3)

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
CHINA	Complies
ENCS	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

United States of America Federal Regulations**SARA 313**

Component	CAS-No	Weight %	SARA 313 - Threshold Values
ALUMINUM OXIDES	1344-28-1	60 - 100	1.0 % de minimis concentration (fibrous forms)

SARA 311/312 Hazardous Categorization

Chronic Health Hazard	no
Acute Health Hazard	yes
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

CERCLA**United States of America State Regulations****California Prop. 65**

This product contains the following Proposition 65 chemicals:

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
ALUMINUM OXIDES	X	X	X		X

Other international regulations**Canada**

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification

Non-controlled

Component	NPRI
ALUMINUM OXIDES	Part 1, Group 1 Substance (fibrous form)

16. OTHER INFORMATION

Revision Date 27-Apr-2011

Revision Note No information available

HMIS (Hazardous Material Information System) Health 1 Flammability 0 Reactivity 0

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