

# Material Safety Data Sheet

Print Date 27-May-2011

Revision Date 27-May-2011

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Common name** SERIES 211  
**Product code** S211-0214  
**Trade name** S C MORTAR  
**Product Class** AGGREGATE BLEND

**Manufacturer** Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372  
**Emergency telephone** 800-535-5053 (INFOTRAC) - TNEMEC 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. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.  
**Ingestion** May be harmful if swallowed.

#### Chronic effects

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

**Interactive effects** No information available. 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 (CVS), Eyes, Kidney, Liver, Lungs, Nasal Cavities, Prostate, Respiratory system, Skin

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous Components

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

CRYSTALLINE SILICA (QUARTZ)	14808-60-7	30 - 60
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	30 - 60
GLASS OXIDE	65997-17-3	1 - 5
AMORPHOUS SILICA	7631-86-9	1 - 5
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	0.1 - 1

### 4. FIRST AID MEASURES

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

### 5. FIRE-FIGHTING MEASURES

<b>Flammable properties</b>	No information available.
<b>Suitable extinguishing media</b>	Foam, carbon dioxide, and dry chemical.
<b>Hazardous decomposition products</b>	No information available

#### 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

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

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
<b>Methods for cleaning up</b>	Shovel or sweep up.
<b>Other information</b>	Not applicable

### 7. HANDLING AND STORAGE

#### Handling

Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Tightly fitting safety goggles. Wear protective gloves/clothing. 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. Keep container tightly closed.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	Quebec TWAEV	Ontario TWAEV	Mexico OEL (TWA)
CRYSTALLINE SILICA (QUARTZ)	: 0.025 mg/m <sup>3</sup> TWA (respirable fraction)	: 0.1 mg/m <sup>3</sup> TWA (respirable dust)	TWA: 0.1 mg/m <sup>3</sup> TWAEV (respirable dust)	TWA: 0.10 mg/m <sup>3</sup> TWA (designated substance regulation, respirable)	: 0.1 mg/m <sup>3</sup> TWA (respirable fraction)
CRYSTALLINE SILICA (QUARTZ)	: 0.025 mg/m <sup>3</sup> TWA (respirable fraction)	: 0.1 mg/m <sup>3</sup> TWA (respirable dust)	TWA: 0.1 mg/m <sup>3</sup> TWAEV (respirable dust)	TWA: 0.10 mg/m <sup>3</sup> TWA (designated substance regulation, respirable)	: 0.1 mg/m <sup>3</sup> TWA (respirable fraction)
GLASS OXIDE	: 1 fiber/cm <sup>3</sup> TWA (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, listed under Synthetic vitreous fibers); 5 mg/m <sup>3</sup> TWA (inhalable fraction, listed under Synthetic vitreous fibers)	Ceiling: 5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWAEV (total dust, respirable, containing no asbestos and less than 1% crystalline silica, listed under Fibres - Artificial vitreous mineral fibres)	TWA: 1 fibre/cm <sup>3</sup> TWA (length>5 microns, aspect ratio>= 3.1, respirable); 5 mg/m <sup>3</sup> TWA (inhalable)	TWA: 0.15 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> TWA: 0.2 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> TWA: 0.01 mg/m <sup>3</sup> TWA: 0.002 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>
CRYSTALLINE SILICA (QUARTZ)	: 0.025 mg/m <sup>3</sup> TWA (respirable fraction)	: 0.1 mg/m <sup>3</sup> TWA (respirable dust)	TWA: 0.1 mg/m <sup>3</sup> TWAEV (respirable dust)	TWA: 0.10 mg/m <sup>3</sup> TWA (designated substance regulation, respirable)	: 0.1 mg/m <sup>3</sup> TWA (respirable fraction)

#### Engineering measures

Ensure adequate ventilation, especially in confined areas

#### Personal Protective Equipment

##### Skin protection

Lightweight protective clothing, Apron, Impervious gloves

##### 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	2.35477 g/cm <sup>3</sup>
Density	19.59522 lbs/gal
Volatiles organic compounds (VOC) content	.000 lbs/gal
Volatiles by weight	.0000 %
Volatiles by volume	.0000 %

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable.	<b>Conditions to avoid</b>	Heat, flames and sparks
<b>Incompatible products</b>	No information available. Strong oxidizing agents. Acids. Reducing agents.	<b>Possibility of hazardous reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
CRYSTALLINE SILICA (QUARTZ)	500 mg/kg ( Rat )		
CRYSTALLINE SILICA (QUARTZ)	500 mg/kg ( Rat )		
AMORPHOUS SILICA	5000 mg/kg ( Rat )	2000 mg/kg ( Rabbit )	2.2 mg/L ( Rat ) 1 h
CRYSTALLINE SILICA (QUARTZ)	500 mg/kg ( Rat )		

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

### Chronic toxicity

#### Carcinogenicity

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

Component	ACGIH	IARC	NTP	OSHA	Mexico
CRYSTALLINE SILICA (QUARTZ)	A2	Group 1	Known	X	
CRYSTALLINE SILICA (QUARTZ)	A2	Group 1	Known	X	
GLASS OXIDE		Group 1 Group 2A			
CRYSTALLINE SILICA (QUARTZ)	A2	Group 1	Known	X	

<b>Mutagenicity</b>	No information available
<b>Reproductive effects</b>	No information available
<b>Developmental effects</b>	No information available
<b>Teratogenicity</b>	No information available
<b>Target Organ Effects</b>	Blood, Central nervous system, Central Vascular System (CVS), Eyes, Kidney, Liver, Lungs, Nasal Cavities, Prostate, Respiratory system, Skin.
<b>Endocrine Disruptor Information</b>	No information available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
GLASS OXIDE		LC50 5.6 - 7.4 µg/L Pimephales promelas 96 h LC50 9.4 - 9.7 µg/L Pimephales promelas 96 h LC50 24.2 - 48.4 µg/L Lepomis macrochirus 96 h		EC50 = 0.9 µg/L 48 h LC50 = 5 µg/L 96 h LC50 1.4 - 2.3 µg/L 96 h
AMORPHOUS SILICA	EC50 = 440 mg/L 72 h	LC50= 5000 mg/L Brachydanio rerio 96 h		EC50 = 7600 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** 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	Does not Comply
KECL	Complies
PICCS	Does not Comply
AICS	Complies

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

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
GLASS OXIDE		X		

#### CERCLA

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

This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	Carcinogen
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	Carcinogen
GLASS OXIDE	65997-17-3	Carcinogen
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	Carcinogen

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
CRYSTALLINE SILICA (QUARTZ)	X	X	X		X
CRYSTALLINE SILICA (QUARTZ)	X	X	X		X
GLASS OXIDE	X	X	X	X	X
AMORPHOUS SILICA	X		X		
CRYSTALLINE SILICA (QUARTZ)	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**

D2A Very toxic materials

**Legend**

NPRI - National Pollutant Release Inventory

<b>16. OTHER INFORMATION</b>
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Revision Date 27-May-2011

Revision Note No information available

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

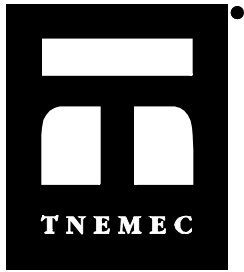
**Disclaimer**

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**





# Material Safety Data Sheet

Print Date 24-May-2011

Revision Date 11-May-2011

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Common name** SERIES 239 PART A  
**Product code** S239-0000A  
**Trade name** CHEMTREAD CLEAR  
**Product Class** EPOXY 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!

CAUSES SKIN AND EYE BURNS.  
MAY CAUSE ALLERGIC SKIN REACTION; EFFECTS MAY BE PERMANENT.  
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.

#### Potential health effects

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

#### Acute effects

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

#### Chronic effects

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

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** No information available

**Interactive effects** Use of alcoholic beverages may enhance toxic effects.

**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

EPOXY RESIN	28064-14-4	60 - 100
BENZYL ALCOHOL	100-51-6	5 - 10
NONYLPHENOL	84852-15-3	1 - 5

### 4. FIRST AID MEASURES

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

### 5. FIRE-FIGHTING MEASURES

<b>Flammable properties</b>	No information available
<b>Suitable extinguishing media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO <sub>2</sub> ) - Foam - Dry chemical
<b>Hazardous decomposition products</b>	Oxides of carbon, hydrocarbons. Oxides of nitrogen. Aldehydes. Ammonia. Ketones. Nitric acid, nitrosamine. Phenolics. Silicon.

#### 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

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

### 7. HANDLING AND STORAGE

#### Handling

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

#### Storage

Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

**Engineering measures**                      Ensure adequate ventilation, especially in confined areas

### Personal Protective Equipment

**Skin protection**                              Lightweight protective clothing, Apron, Impervious gloves

**Eye/face protection**                      If splashes are likely to occur, wear Goggles.

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

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Flash point</b>	Not applicable
<b>Boiling range</b>	No information available
<b>Upper explosion limit</b>	No information available
<b>Lower explosion limit</b>	No information available
<b>Evaporation rate</b>	No information available
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Specific Gravity</b>	1.17457 g/cm <sup>3</sup>
<b>Density</b>	9.77417 lbs/gal
<b>Volatile organic compounds (VOC) content</b>	.064 lbs/gal
<b>Volatile by weight</b>	.6490 %
<b>Volatile by volume</b>	.7364 %

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable.	<b>Conditions to avoid</b>	Heat, flames and sparks. Epoxy constituents. Contact with water liberates toxic gas (methanol).
<b>Incompatible products</b>	Strong oxidizing agents. Bases. Acids. Hypochlorites. Nitrous acid and other nitrosating agents. Peroxides. Amines.	<b>Possibility of hazardous reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
BENZYL ALCOHOL	1230 mg/kg ( Rat )	2000 mg/kg ( Rabbit )	8.8 mg/L ( Rat ) 4 h
NONYLPHENOL	580 mg/kg ( Rat )	2031 mg/kg ( Rabbit )	

**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

Component	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
NONYLPHENOL	Group II Chemical	Medium Exposure Concern	

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
BENZYL ALCOHOL	EC50 = 35 mg/L 3 h	LC50= 10 mg/L Lepomis macrochirus 96 h LC50= 460 mg/L Pimephales promelas 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
NONYLPHENOL	EC50 0.36 - 0.48 mg/L 96 h EC50 0.16 - 0.72 mg/L 72 h EC50 = 1.3 mg/L 72 h	LC50= 0.135 mg/L Pimephales promelas 96 h LC50= 0.1351 mg/L Lepomis macrochirus 96 h		EC50 0.0874 - 0.124 mg/L 48 h EC50 0.17 - 0.21 mg/L 48 h EC50 = 0.14 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**

UN3066,PAINT,8,PGIII,ERG 153

## 15. REGULATORY INFORMATION

**International Inventories**

**TSCA** Complies  
**DSL/NDL** Complies  
**EINECS/ELINCS** Does not Comply  
**CHINA** Complies

ENCS Does not Comply  
 KECL Complies  
 PICCS Complies  
 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 yes  
 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
BENZYL ALCOHOL	X		X		
NONYLPHENOL	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**

D2B Toxic materials  
 E Corrosive material



Component	NPRI
NONYLPHENOL	Part 1, Group 1 Substance

**Legend**

NPRI - National Pollutant Release Inventory

**16. OTHER INFORMATION**

Revision Date 11-May-2011

Revision Note No information available

HMIS (Hazardous Material  
Information System)

Health 3

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

Print Date 15-Jul-2011

Revision Date 15-Jul-2011

Revision Number 2

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Common name** SERIES 239 PART A  
**Product code** S239-00GRB  
**Trade name** CHEMTREAD GRAY  
**Product Class** EPOXY 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!

CAUSES SKIN AND EYE BURNS.  
MAY CAUSE ALLERGIC SKIN REACTION; EFFECTS MAY BE PERMANENT.  
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.

#### Potential health effects

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

#### Acute effects

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

#### Chronic effects

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

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** No information available

**Interactive effects** Use of alcoholic beverages may enhance toxic effects.

**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

TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	5 - 10
CARBAMIDE ACID ESTER RESIN		1 - 5
DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	88917-22-0	1 - 5
AMORPHOUS SILICA	7631-86-9	1 - 5
ALUMINUM OXIDES	1344-28-1	1 - 5
IRON OXIDE FUME	1309-37-1	0.1 - 1
CARBON BLACK DUST & FUME	1333-86-4	0.1 - 1

### 4. FIRST AID MEASURES

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

### 5. FIRE-FIGHTING MEASURES

<b>Flammable properties</b>	No information available
<b>Suitable extinguishing media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO <sub>2</sub> ) - Foam - Dry chemical
<b>Hazardous decomposition products</b>	Oxides of carbon, hydrocarbons. Oxides of nitrogen. Aldehydes. Ammonia. Ketones. Nitric acid, nitrosamine. Phenolics. Silicon.
<b>Specific hazards arising from the chemical</b>	Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.
<b>Protective equipment and precautions for firefighters</b>	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

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

## 7. HANDLING AND STORAGE

### Handling

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

### Storage

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)
TITANIUM DIOXIDE (TOTAL DUST)	: 10 mg/m <sup>3</sup> TWA	: 10 mg/m <sup>3</sup> TWA (total dust) : 15 mg/m <sup>3</sup> TWA (total dust)	TWA: 10 mg/m <sup>3</sup> TWAEV (total dust, containing no Asbestos and <1% Crystalline silica)	TWA: 10 mg/m <sup>3</sup> TWA (total dust)	: 10 mg/m <sup>3</sup> TWA (as Ti) : 20 mg/m <sup>3</sup> STEL (as Ti)
DIPROPYLENE GLYCOL MONOMETHYL ETHER ACETATE				TWA: 100 ppm TWA; 776 mg/m <sup>3</sup> TWA STEL; 150 ppm STEL; 1164 mg/m <sup>3</sup> STEL	
ALUMINUM OXIDES	TWA: 1 mg/m <sup>3</sup>	: 10 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction) : 15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)	TWA: 10 mg/m <sup>3</sup> TWAEV (total dust, containing no Asbestos and <1% Crystalline silica, as Al)	TWA: 10 mg/m <sup>3</sup>	: 10 mg/m <sup>3</sup> TWA
IRON OXIDE FUME	: 5 mg/m <sup>3</sup> TWA (respirable fraction)	: 10 mg/m <sup>3</sup> TWA (fume)	TWA: 5 mg/m <sup>3</sup> TWAEV (dust and fume, as Fe)	TWA: 5 mg/m <sup>3</sup> TWA (respirable)	: 5 mg/m <sup>3</sup> TWA : 10 mg/m <sup>3</sup> STEL (as Fe)
CARBON BLACK DUST & FUME	: 3 mg/m <sup>3</sup> TWA (inhalable fraction)	: 3.5 mg/m <sup>3</sup> TWA	TWA: 3.5 mg/m <sup>3</sup> TWAEV	TWA: 3.5 mg/m <sup>3</sup> TWA	: 3.5 mg/m <sup>3</sup> TWA : 7 mg/m <sup>3</sup> STEL

### Engineering measures

Ensure adequate ventilation, especially in confined areas

### Personal Protective Equipment

#### Skin protection

Lightweight protective clothing, Apron, Impervious gloves

#### Eye/face protection

If splashes are likely to occur, wear Goggles.

#### Respiratory protection

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

#### General hygiene considerations

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Flash point

64°C / 148.0°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

1.11999 g/cm<sup>3</sup>

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Density	9.32001 lbs/gal
Volatile organic compounds (VOC) content	.436 lbs/gal
Volatile by weight	4.6890 %
Volatile by volume	5.3528 %

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable.	<b>Conditions to avoid</b>	Heat, flames and sparks. Epoxy constituents. Contact with water liberates toxic gas (methanol).
<b>Incompatible products</b>	Strong oxidizing agents. Bases. Acids. Hypochlorites. Nitrous acid and other nitrosating agents. Peroxides. Amines.	<b>Possibility of hazardous reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
TITANIUM DIOXIDE (TOTAL DUST)	>10000 mg/kg ( Rat )		
AMORPHOUS SILICA	>5000 mg/kg ( Rat )	>2000 mg/kg ( Rabbit )	>2.2 mg/L ( Rat ) 1 h
ALUMINUM OXIDES	>5000 mg/kg ( Rat )		
IRON OXIDE FUME	>10000 mg/kg ( Rat )		
CARBON BLACK DUST & FUME	>15400 mg/kg ( Rat )	>3 g/kg ( Rabbit )	

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

### Chronic toxicity

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

Component	ACGIH	IARC	NTP	OSHA	Mexico
TITANIUM DIOXIDE (TOTAL DUST)		Group 2B		X	
CARBON BLACK DUST & FUME	A3	Group 2B		X	

<b>Mutagenicity</b>	No information available
<b>Reproductive effects</b>	No information available
<b>Developmental effects</b>	No information available
<b>Teratogenicity</b>	No information available
<b>Target Organ Effects</b>	No information available
<b>Endocrine Disruptor Information</b>	No information available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
AMORPHOUS SILICA	EC50 440 mg/L 72 h	LC50 5000 mg/L Brachydanio rerio 96 h		EC50 7600 mg/L 48 h
CARBON BLACK DUST & FUME				EC50 > >5600 mg/L 24 h

### 13. DISPOSAL CONSIDERATIONS

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

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

### 14. TRANSPORT INFORMATION

**DOT** Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

**Proper shipping name** UN3066, PAINT, 8, PGIII, ERG 153

### 15. REGULATORY INFORMATION

#### International Inventories

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

Component	CAS-No	Weight %	SARA 313 - Threshold Values
ALUMINUM OXIDES	1344-28-1	1 - 5	1.0 % de minimis concentration (fibrous forms)

#### SARA 311/312 Hazardous Categorization

<b>Chronic Health Hazard</b>	yes
<b>Acute Health Hazard</b>	yes
<b>Fire Hazard</b>	yes
<b>Sudden Release of Pressure Hazard</b>	no
<b>Reactive Hazard</b>	no

#### CERCLA

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

This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65
CARBON BLACK DUST & FUME	1333-86-4	Carcinogen

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
TITANIUM DIOXIDE (TOTAL DUST)	X	X	X		X
AMORPHOUS SILICA	X		X		
ALUMINUM OXIDES	X	X	X		X
IRON OXIDE FUME	X	X	X		X
CARBON BLACK DUST & FUME	X	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**

D2B Toxic materials  
E Corrosive material



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

**Legend**

NPRI - National Pollutant Release Inventory

## 16. OTHER INFORMATION

**Revision Date** 15-Jul-2011

**Revision Note** No information available

**HMIS (Hazardous Material Information System)**      **Health 3**                      **Flammability 2**                      **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**

