



# Material Safety Data Sheet

Print Date 19-Apr-2011

Revision Date 19-Apr-2011

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Common name</b>	SERIES G351 PART A
<b>Product code</b>	G351-1232A
<b>Trade name</b>	TANK ARMOR BLUE
<b>Product Class</b>	EPOXY PAINT
<b>Manufacturer</b>	Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
<b>Emergency telephone</b>	800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

#### WARNING!

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

#### Potential health effects

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

#### Acute effects

<b>Eyes</b>	Irritating to eyes.
<b>Skin</b>	Irritating to skin. May cause sensitization by skin contact.
<b>Inhalation</b>	Irritating to respiratory system. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.
<b>Ingestion</b>	May be harmful if swallowed.

#### Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** Respiratory disorders.

**Interactive effects** No information available

**Potential environmental effects** See Section 12 for additional Ecological Information

**Target Organ Effects** Eyes, Lungs, Respiratory system

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous Components

Component	CAS-No	Weight %
EPOXY RESIN (LER)	25085-99-8	30 - 60
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	30 - 60
d-LIMONENE	5989-27-5	1 - 5
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	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>	Flammable.
<b>Suitable extinguishing media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO <sub>2</sub> ) - Foam - Dry chemical
<b>Hazardous decomposition products</b>	Oxides of carbon, hydrocarbons. Aldehydes.
<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)
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)
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 less than 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)

**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	Not applicable
Boiling range	171°C / 339.0°F
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	1.53023 g/cm <sup>3</sup>
Density	12.73380 lbs/gal
Volatile organic compounds (VOC) content	.208 lbs/gal
Volatile by weight	1.6290 %
Volatile by volume	2.9635 %

## 10. STABILITY AND REACTIVITY

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

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
CRYSTALLINE SILICA (QUARTZ)	500 mg/kg ( Rat )		
d-LIMONENE	4400 mg/kg ( Rat )	2000 mg/kg ( Rabbit )	
TITANIUM DIOXIDE (TOTAL DUST)	10000 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	
TITANIUM DIOXIDE (TOTAL DUST)		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>	Eyes, Lungs, Respiratory system.
<b>Endocrine Disruptor Information</b>	No information available

Component	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
EPOXY RESIN (LER)	Group III Chemical		

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
d-LIMONENE		LC50 0.619-0.796 mg/L Pimephales promelas 96 h LC50= 35 mg/L Oncorhynchus mykiss 96 h		

## 13. DISPOSAL CONSIDERATIONS

<b>Waste disposal methods</b>	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.
<b>Contaminated packaging</b>	Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION
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**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
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**International Inventories**

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

<b>Chronic Health Hazard</b>	no
<b>Acute Health Hazard</b>	yes
<b>Fire Hazard</b>	no
<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
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
TITANIUM DIOXIDE (TOTAL DUST)	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



Component	NPRI
d-LIMONENE	Part 5 Substance

**Legend**

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION
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Revision Date 19-Apr-2011

Revision Note No information available

HMIS (Hazardous Material Information System)      Health 3\*      Flammability 1      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 27-May-2011

Revision Date 27-May-2011

Revision Number 2

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Common name</b>	SERIES G351 PART B
<b>Product code</b>	G351-0351B
<b>Trade name</b>	TANK ARMOR ACTIVATOR
<b>Product Class</b>	AMINE PAINT
<b>Manufacturer</b>	Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
<b>Emergency telephone</b>	800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

**DANGER!**

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

### Potential health effects

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

### Acute effects

<b>Eyes</b>	Causes burns.
<b>Skin</b>	Causes burns. May cause sensitization by skin contact.
<b>Inhalation</b>	Irritating to respiratory system. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.
<b>Ingestion</b>	May be harmful if swallowed.

### Chronic effects

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** Central nervous system. Gastrointestinal tract. Kidney disorders. Liver disorders. Skin disorders. 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, Gastrointestinal tract, Eyes, Kidney, Liver, Lungs, Respiratory system, Skin

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Hazardous Components**

Component	CAS-No	Weight %
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	30 - 60
POLYSULFIDE POLYMER	68611-50-7	30 - 60
MODIFIED ALIPHATIC AMINE	90-72-2	1 - 5
DIMETHYLAMINO(METHYL)PHENOL	25338-55-0	1 - 5
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	1 - 5
XYLENE	1330-20-7	1 - 5
PHENOL (SKIN)	108-95-2	0.1 - 1
ETHYL BENZENE	100-41-4	0.1 - 1
ALUMINUM OXIDES	1344-28-1	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. Nitric acid, nitrosamine.
<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.

**Methods for cleaning up**

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

**Other information**

Not applicable

## 7. HANDLING AND STORAGE

**Handling**

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

**Storage**

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)
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)
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 less than 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)
XYLENE	: 100 ppm TWA : 150 ppm STEL	: 100 ppm TWA; 435 mg/m <sup>3</sup> TWA : 150 ppm STEL; 655 mg/m <sup>3</sup> STEL	TWA: 100 ppm TWAEV; 434 mg/m <sup>3</sup> TWAEV STEL: 150 ppm STEV; 651 mg/m <sup>3</sup> STEV	TWA: 100 ppm TWA STEL: 150 ppm STEL	: 100 ppm TWA; 435 mg/m <sup>3</sup> TWA : 150 ppm STEL; 655 mg/m <sup>3</sup> STEL
PHENOL (SKIN)	: 5 ppm TWA Skin	: 5 ppm TWA; 19 mg/m <sup>3</sup> TWA Skin	TWA: 5 ppm TWAEV; 19 mg/m <sup>3</sup> TWAEV Skin	TWA: 5 ppm TWA Skin	: 5 ppm TWA; 19 mg/m <sup>3</sup> TWA : 10 ppm STEL; 38 mg/m <sup>3</sup> STEL
ETHYL BENZENE	: 100 ppm TWA : 125 ppm STEL	: 100 ppm TWA; 435 mg/m <sup>3</sup> TWA : 125 ppm STEL; 545 mg/m <sup>3</sup> STEL	TWA: 100 ppm TWAEV; 434 mg/m <sup>3</sup> TWAEV STEL: 125 ppm STEV; 543 mg/m <sup>3</sup> STEV	TWA: 100 ppm TWA STEL: 125 ppm STEL	: 100 ppm TWA; 435 mg/m <sup>3</sup> TWA : 125 ppm STEL; 545 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 less than 1% crystalline silica, as Al)	TWA: 10 mg/m <sup>3</sup>	: 10 mg/m <sup>3</sup> TWA

**Engineering measures**

Ensure adequate ventilation, especially in confined areas

**Personal Protective Equipment****Skin protection**

Lightweight protective clothing, Apron, Impervious gloves

**Eye/face protection**

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

**Respiratory protection**

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

**General hygiene considerations**

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Flash point</b>	Not applicable
<b>Boiling range</b>	138 - 142°C / 280.0 - 288.0°F
<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>	1.69740 g/cm <sup>3</sup>
<b>Density</b>	14.12491 lbs/gal
<b>Volatile organic compounds (VOC) content</b>	.322 lbs/gal
<b>Volatile by weight</b>	2.2810 %
<b>Volatile by volume</b>	4.4374 %

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable.	<b>Conditions to avoid</b>	Heat, flames and sparks. Epoxy constituents.
<b>Incompatible products</b>	Strong oxidizing agents. Bases. Acids. Metals . Hypochlorites. Peroxides.	<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 )		
MODIFIED ALIPHATIC AMINE	1000 mg/kg ( Rat )	1280 mg/kg ( Rat )	
TITANIUM DIOXIDE (TOTAL DUST)	10000 mg/kg ( Rat )		
XYLENE	4300 mg/kg ( Rat )	1700 mg/kg ( Rabbit )	5000 ppm ( Rat ) 4 h 47635 mg/L ( Rat ) 4 h
PHENOL (SKIN)	317 mg/kg ( Rat )	525 mg/kg ( Rat ) 630 mg/kg ( Rabbit )	316 mg/m <sup>3</sup> ( Rat ) 4 h
ETHYL BENZENE	3500 mg/kg ( Rat )	15354 mg/kg ( Rabbit )	17.2 mg/L ( Rat ) 4 h
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

Component	ACGIH	IARC	NTP	OSHA	Mexico
CRYSTALLINE SILICA (QUARTZ)	A2	Group 1	Known	X	
TITANIUM DIOXIDE (TOTAL DUST)		Group 2B		X	
ETHYL BENZENE	A3	Group 2B		X	

**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, Gastrointestinal tract, Eyes, Kidney, Liver, Lungs, Respiratory system, Skin.  
**Endocrine Disruptor Information** No information available

<b>12. ECOLOGICAL INFORMATION</b>
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**Ecotoxicity**

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
XYLENE		LC50= 13.4 mg/L Pimephales promelas 96 h LC50 2.661-4.093 mg/L Oncorhynchus mykiss 96 h LC50 13.5-17.3 mg/L Oncorhynchus mykiss 96 h LC50 13.1-16.5 mg/L Lepomis macrochirus 96 h LC50= 19 mg/L Lepomis macrochirus 96 h LC50 7.711-9.591 mg/L Lepomis macrochirus 96 h LC50 23.53-29.97 mg/L Pimephales promelas 96 h LC50= 780 mg/L Cyprinus carpio 96 h LC50> 780 mg/L Cyprinus carpio 96 h LC50 30.26-40.75 mg/L Poecilia reticulata 96 h	EC50 = 0.0084 mg/L 24 h	EC50 = 3.82 mg/L 48 h LC50 = 0.6 mg/L 48 h

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
PHENOL (SKIN)	EC50 = 46.42 mg/L 96 h EC50 = 0.0188 - 0.1044 mg/L 96 h EC50 = 187 - 279 mg/L 72 h	LC50 11.9-25.3 mg/L Lepomis macrochirus 96 h LC50 11.9-50.5 mg/L Pimephales promelas 96 h LC50 20.5-25.6 mg/L Pimephales promelas 96 h LC50 23.4-36.6 mg/L Oryzias latipes 96 h LC50 33.9-43.3 mg/L Oryzias latipes 96 h LC50 34.09-47.64 mg/L Poecilia reticulata 96 h LC50 4.23-7.49 mg/L Oncorhynchus mykiss 96 h LC50 5.0-12.0 mg/L Oncorhynchus mykiss 96 h LC50 5.449-6.789 mg/L Oncorhynchus mykiss 96 h LC50 7.5-14 mg/L Oncorhynchus mykiss 96 h LC50= 0.00175 mg/L Cyprinus carpio 96 h LC50= 11.5 mg/L Lepomis macrochirus 96 h LC50= 13.5 mg/L Lepomis macrochirus 96 h LC50= 27.8 mg/L Brachydanio rerio 96 h LC50= 31 mg/L Poecilia reticulata 96 h LC50= 32 mg/L Pimephales promelas 96 h	EC50 = 28.8 mg/L 5 min EC50 = 31.6 mg/L 15 min EC50 = 23.28 mg/L 5 min EC50 = 25.61 mg/L 15 min EC50 = 21 - 36 mg/L 30 min	EC50 10.2 - 15.5 mg/L 48 h EC50 4.24 - 10.7 mg/L 48 h
ETHYL BENZENE	EC50 = 4.6 mg/L 72 h EC50 > 438 mg/L 96 h EC50 2.6 - 11.3 mg/L 72 h EC50 1.7 - 7.6 mg/L 96 h	LC50 11.0-18.0 mg/L Oncorhynchus mykiss 96 h LC50= 4.2 mg/L Oncorhynchus mykiss 96 h LC50 7.55-11 mg/L Pimephales promelas 96 h LC50= 32 mg/L Lepomis macrochirus 96 h LC50 9.1-15.6 mg/L Pimephales promelas 96 h LC50= 9.6 mg/L Poecilia reticulata 96 h	EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h	EC50 1.8 - 2.4 mg/L 48 h

### 13. DISPOSAL CONSIDERATIONS

<b>Waste disposal methods</b>	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.
<b>Contaminated packaging</b>	Empty containers should be taken for local recycling, recovery or waste disposal

### 14. TRANSPORT INFORMATION

<b>DOT</b>	Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.
<b>Proper shipping name</b>	UN3066,PAINT,8,PGIII,ERG 153

### 15. REGULATORY INFORMATION

#### International Inventories

<b>TSCA</b>	Complies
<b>DSL/NDL</b>	Complies
<b>EINECS/ELINCS</b>	Does not Comply

CHINA	Complies
ENCS	Complies
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):

Component  
 XYLENE  
 PHENOL (SKIN)  
 ETHYL BENZENE

### United States of America Federal Regulations

#### SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values
XYLENE	1330-20-7	1 - 5	1.0 % de minimis concentration
PHENOL (SKIN)	108-95-2	0.1 - 1	1.0 % de minimis concentration
ETHYL BENZENE	100-41-4	0.1 - 1	0.1 % de minimis concentration
ALUMINUM OXIDES	1344-28-1	0.1 - 1	1.0 % de minimis concentration (fibrous forms)

#### 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
XYLENE	100 lb RQ			X
PHENOL (SKIN)	1000 lb RQ	X	X	X
ETHYL BENZENE	1000 lb RQ	X	X	X

#### CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
PHENOL (SKIN)		1000 lb EPCRA RQ

### 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
ETHYL BENZENE	100-41-4	Carcinogen

#### **State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island

CRYSTALLINE SILICA (QUARTZ)	X	X	X		X
TITANIUM DIOXIDE (TOTAL DUST)	X	X	X		X
XYLENE	X	X	X	X	X
PHENOL (SKIN)	X	X	X	X	X
ETHYL BENZENE	X	X	X	X	X
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**

D2A Very toxic materials

E Corrosive material



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

**Legend**

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION
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Revision Date 27-May-2011

Revision Note No information available

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