



# Safety Data Sheet

Issue Date 11-Jul-2016

Revision Date 11-Jul-2016

Revision Number 6

## 1. IDENTIFICATION

### Product identifier

**Product Code** G396-1232A  
**Product Name** TANK ARMOR BLUE

### Other means of identification

**Common Name** SERIES 396 PART A

### 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. 6800 Corporate Drive, Kansas City, MO  
64120-1372 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)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1A
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 1


### Label elements

#### EMERGENCY OVERVIEW

#### **Danger**

#### **Hazard statements**

Harmful if swallowed  
Causes skin irritation  
Causes serious eye irritation  
May cause an allergic skin reaction  
May cause genetic defects  
May cause cancer  
Causes damage to organs through prolonged or repeated exposure

		
<b>Appearance</b> blue	<b>Physical state</b> liquid	<b>Odor</b> Slight

**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  
 Do not eat, drink or smoke when using this product  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves  
 Do not breathe dust/fume/gas/mist/vapors/spray

**Response**

IF exposed or concerned: Get medical advice/attention  
 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  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth

**Storage**

Store locked up  
 Keep away from children

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

If product is in liquid or paste form, physical or health hazards listed related to dust are not considered significant. However, product may contain substances that could be potential hazards if caused to become airborne due to grinding, sanding or other abrasive processes.

May be harmful by inhalation

**Other information**

May be harmful in contact with skin  
 Toxic to aquatic life with long lasting effects  
 Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).  
 SEE SAFETY DATA SHEET  
 Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs  
 Acute Toxicity 1.03549195 % of the mixture consists of ingredient(s) of unknown toxicity.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight-%
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	30 - 60%
EPOXY RESIN	28064-14-4	30 - 60%
COAL FIRED FLY ASH BI-PRODUCT	68131-74-8	10 - 30%
GLYCIDYL ETHER OF 1,4 BUTANE DIOL	2425-79-8	1 - 10%

XYLENE	1330-20-7	1 - 10%
RHEOLOGY MODIFIER	C573	0.1 - 1%
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	0.1 - 1%
ETHYL BENZENE	100-41-4	0.1 - 1%
UREA RESIN	-	0.1 - 1%
RHEOLOGY MODIFIER	100545-48-0	0.1 - 1%
ACRYLIC POLYMER	C173	0.1 - 1%
N-BUTANOL (SKIN)	71-36-3	0.1 - 1%
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	0.1 - 1%
AROMATIC PETROLEUM DISTILLATE	64742-95-6	0.1 - 1%
LEVELING AGENT	C572	0 - 0.1%
COPPER COMPOUNDS	147-14-8	0 - 0.1%
AMORPHOUS SILICA	7631-86-9	0 - 0.1%
ALUMINUM OXIDES	1344-28-1	0 - 0.1%
ALUMINUM HYDROXIDE	21645-51-2	0 - 0.1%
FORMALDEHYDE	50-00-0	0 - 0.1%
NON-HAZARDOUS MATERIAL	C551	0 - 0.1%
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	0 - 0.1%
ZIRCONIUM OXIDE	1314-23-4	0 - 0.1%
COPPER COMPOUND	28654-73-1	0 - 0.1%
BARIUM SULFATE (TOTAL DUST)	7727-43-7	0 - 0.1%

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

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	If symptoms persist, call a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<b>Inhalation</b>	Remove to fresh air. Oxygen or artificial respiration if needed.
<b>Ingestion</b>	If swallowed, do not induce vomiting. Get medical attention immediately.
<b>Self-protection of the first aider</b>	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** Water.

##### 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. Carbon oxides. Hydrocarbons. Nitrogen oxides (NOx). Ammonia. Nitric acid, nitrosamine. Phenolics. Aldehydes.

**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, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with eyes, skin and clothing. Use personal protective equipment. 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** 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.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling** Close container after each use. Avoid contact with eyes, skin 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.

**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** Strong oxidizing agents. Acids. Hypochlorites. Nitrous acid and other nitrosating agents. Peroxides. Water, alcohols, amines, strong bases, metal components, surface active materials.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	TWA: 0.025 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	50 mg/m <sup>3</sup>

COAL FIRED FLY ASH BI-PRODUCT 68131-74-8	TWA: 1 mg/m <sup>3</sup>	-	100 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>
XYLENE 1330-20-7	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup> STEL: 150 ppm STEL: 655 mg/m <sup>3</sup>	
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	5000 mg/m <sup>3</sup>
ETHYL BENZENE 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup> STEL: 125 ppm STEL: 545 mg/m <sup>3</sup>	800 ppm
N-BUTANOL (SKIN) 71-36-3	TWA: 20 ppm	Skin Ceiling: 50 ppm Ceiling: 150 mg/m <sup>3</sup> TWA: 100 ppm TWA: 300 mg/m <sup>3</sup>	1400 ppm
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	TWA: 0.025 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	50 mg/m <sup>3</sup>
COPPER COMPOUNDS 147-14-8	TWA: 1 mg/m <sup>3</sup>	-	100 mg/m <sup>3</sup>
AMORPHOUS SILICA 7631-86-9	-	TWA: 6 mg/m <sup>3</sup>	3000 mg/m <sup>3</sup>
ALUMINUM OXIDES 1344-28-1	TWA: 1 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	
ALUMINUM HYDROXIDE 21645-51-2	TWA: 1 mg/m <sup>3</sup>	-	
FORMALDEHYDE 50-00-0	Ceiling: 0.3 ppm	TWA: 3 ppm STEL: 10 ppm Ceiling: 5 ppm TWA: 0.75 ppm STEL: 2 ppm	20 ppm
ZIRCONIUM OXIDE 1314-23-4	TWA: 5 mg/m <sup>3</sup>	-	25 mg/m <sup>3</sup>
COPPER COMPOUND 28654-73-1	TWA: 1 mg/m <sup>3</sup>	-	100 mg/m <sup>3</sup>
BARIUM SULFATE (TOTAL DUST) 7727-43-7	TWA: 5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	

**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**

<b>Physical state</b>	liquid	<b>Odor</b>	Slight
<b>Appearance</b>	blue	<b>Odor threshold</b>	No information available
<b>Color</b>	No information available		
<b>Property</b>	<b>Values</b>	<b>Remarks</b>	
pH		No data available	
Melting point / freezing point		No data available	
Boiling point / boiling range	138 °C / 280.0 °F		
Flash point	93 °C / 200.0 °F	Pensky Martens - Closed Cup	
Evaporation rate		No data available	
Flammability (solid, gas)		No information available	
Flammability Limit in Air		No data available	
Upper flammability limit	N/A		
Lower flammability limit	1.0		
Vapor pressure		No data available	
Vapor density		No data available	
Specific gravity	1.44908	g/cm <sup>3</sup>	
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 data available	
Kinematic viscosity		No data available	
Dynamic viscosity		No data available	

**Other Information**

<b>Density</b>	12.08529 lbs/gal
<b>Volatile organic compounds (VOC) content</b>	0.1837 lbs/gal
<b>Total volatiles weight percent</b>	1.52 %
<b>Total volatiles volume percent</b>	2.55 %

## 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. Epoxy constituents.

**Incompatible materials**

Strong oxidizing agents, Acids, Hypochlorites, Nitrous acid and other nitrosating agents, Peroxides, Water, alcohols, amines, strong bases, metal components, surface active 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. Nitrogen oxides (NOx). Ammonia. Aldehydes. Nitric acid, nitrosamine. Phenolics.

## 11. TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure**

<b>Inhalation</b>	May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.
<b>Eye contact</b>	Severely irritating to eyes.
<b>Skin contact</b>	Irritating to skin. May cause sensitization by skin contact.
<b>Ingestion</b>	Harmful if swallowed.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	= 500 mg/kg ( Rat )		
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8	> 2000 mg/kg ( Rat )		
GLYCIDYL ETHER OF 1,4 BUTANE DIOL 2425-79-8	= 1134 mg/kg ( Rat )	= 1130 mg/kg ( Rabbit )	
XYLENE 1330-20-7	= 3500 mg/kg ( Rat )	> 4350 mg/kg ( Rabbit ) > 1700 mg/kg ( Rabbit )	= 5000 ppm ( Rat ) 4 h = 29.08 mg/L ( Rat ) 4 h
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	> 10000 mg/kg ( Rat )		
ETHYL BENZENE 100-41-4	= 3500 mg/kg ( Rat )	= 15400 mg/kg ( Rabbit )	= 17.2 mg/L ( Rat ) 4 h
N-BUTANOL (SKIN) 71-36-3	= 700 mg/kg ( Rat ) = 790 mg/kg ( Rat )	= 3400 mg/kg ( Rabbit ) = 3402 mg/kg ( Rabbit )	> 8000 ppm ( Rat ) 4 h
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	= 500 mg/kg ( Rat )		
AROMATIC PETROLEUM DISTILLATE 64742-95-6	= 8400 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	= 3400 ppm ( Rat ) 4 h
AMORPHOUS SILICA 7631-86-9	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 2.2 mg/L ( Rat ) 1 h
ALUMINUM OXIDES 1344-28-1	> 5000 mg/kg ( Rat )		
ALUMINUM HYDROXIDE 21645-51-2	> 5000 mg/kg ( Rat )		
FORMALDEHYDE 50-00-0	= 100 mg/kg ( Rat )	= 270 mg/kg ( Rabbit )	= 0.578 mg/L ( Rat ) 4 h
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE 108-65-6	= 8532 mg/kg ( Rat )	> 5 g/kg ( Rabbit )	

**Information on toxicological effects**

**Symptoms** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Skin disorders.

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

**Chronic Toxicity**

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).

**Sensitization**

May cause sensitization of susceptible persons.

**Mutagenicity**

May cause genetic defects.

**Carcinogenicity**

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

Component	ACGIH	IARC	NTP	OSHA
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	A2	Group 1	Known	X
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8		Group 1	Known	
XYLENE 1330-20-7		Group 3		
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7		Group 2B		X
ETHYL BENZENE 100-41-4	A3	Group 2B		X
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	A2	Group 1	Known	X
AMORPHOUS SILICA 7631-86-9		Group 3	Reasonably Anticipated	X
ALUMINUM OXIDES 1344-28-1			Reasonably Anticipated	X
FORMALDEHYDE 50-00-0	A2	Group 1	Known	X
ZIRCONIUM OXIDE 1314-23-4			Reasonably Anticipated	X

**Reproductive effects**

No information available.

**STOT - single exposure**

No information available

**STOT - repeated exposure**

Causes damage to organs through prolonged or repeated exposure

**Target organ effects**

Eyes, Lungs, respiratory system, Skin, blood, Central nervous system, Gastrointestinal tract, kidney, liver, Nasal Cavities.

**Aspiration hazard**

No information available.

**Acute Toxicity**

1.03549195 % of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Toxic to aquatic life with long lasting effects

56.04946 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Component	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8			140 - 2000: 24 h Daphnia magna mg/L EC50
GLYCIDYL ETHER OF 1,4 BUTANE DIOL 2425-79-8	160 mg/L 72 hr	19.8 mg/L 96 hr Danio rerio	75 mg/L 24h



XYLENE 1330-20-7		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 = 3.82 mg/L 48 h LC50 = 0.6 mg/L 48 h
ETHYL BENZENE 100-41-4	1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 438: 96 h Pseudokirchneriella subcapitata mg/L EC50	11.0 - 18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static 4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 9.6: 96 h Poecilia reticulata mg/L LC50 static	1.8 - 2.4: 48 h Daphnia magna mg/L EC50
N-BUTANOL (SKIN) 71-36-3	500: 72 h Desmodemus subspicatus mg/L EC50 500: 96 h Desmodemus subspicatus mg/L EC50	100000 - 500000: 96 h Lepomis macrochirus µg/L LC50 static 1730 - 1910: 96 h Pimephales promelas mg/L LC50 static 1740: 96 h Pimephales promelas mg/L LC50 flow-through 1910000: 96 h Pimephales promelas µg/L LC50 static	1897 - 2072: 48 h Daphnia magna mg/L EC50 Static 1983: 48 h Daphnia magna mg/L EC50
AROMATIC PETROLEUM DISTILLATE 64742-95-6		9.22: 96 h Oncorhynchus mykiss mg/L LC50	6.14: 48 h Daphnia magna mg/L EC50
COPPER COMPOUNDS 147-14-8		100: 48 h Oryzias latipes mg/L LC50 static	
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
FORMALDEHYDE 50-00-0		0.032 - 0.226: 96 h Oncorhynchus mykiss mL/L LC50 flow-through 100 - 136: 96 h Oncorhynchus mykiss mg/L LC50 static 22.6 - 25.7: 96 h Pimephales promelas mg/L LC50 flow-through 23.2 - 29.7: 96 h Pimephales promelas mg/L LC50 static 1510: 96 h Lepomis macrochirus µg/L LC50 static 41: 96 h Brachydanio rerio mg/L LC50 static	11.3 - 18: 48 h Daphnia magna mg/L EC50 Static 2: 48 h Daphnia magna mg/L LC50
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE 108-65-6		161: 96 h Pimephales promelas mg/L LC50 static	500: 48 h Daphnia magna mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility in Environmental Media**

Component	log Pow
XYLENE 1330-20-7	2.77
ETHYL BENZENE 100-41-4	3.118

N-BUTANOL (SKIN) 71-36-3	0.785
COPPER COMPOUNDS 147-14-8	6.6
FORMALDEHYDE 50-00-0	0.35
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE 108-65-6	0.43

**Other Adverse Effects** No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**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 to an approved waste handling site for recycling or disposal.

Component	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
XYLENE 1330-20-7		Included in waste stream: F039		U239
ETHYL BENZENE 100-41-4		Included in waste stream: F039		
N-BUTANOL (SKIN) 71-36-3		Included in waste stream: F039		U031
FORMALDEHYDE 50-00-0	U122	Included in waste streams: K009, K010, K038, K040, K156, K157		U122

Component	CAWAST
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8	Toxic Corrosive
XYLENE 1330-20-7	Toxic Ignitable
ETHYL BENZENE 100-41-4	Toxic Ignitable
N-BUTANOL (SKIN) 71-36-3	Toxic
COPPER COMPOUNDS 147-14-8	Toxic
FORMALDEHYDE 50-00-0	Toxic Ignitable
COPPER COMPOUND 28654-73-1	Toxic

**14. TRANSPORT INFORMATION**

**DOT**  
**Proper Shipping Name** PAINT & RELATED MATERIAL

**IATA**

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

**15. REGULATORY INFORMATION**

**International Inventories**

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

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - 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

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

Component	HAPS Data
COAL FIRED FLY ASH BI-PRODUCT	
XYLENE	
ETHYL BENZENE	
FORMALDEHYDE	

**United States of America**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

Component	SARA 313 - Threshold Values
COAL FIRED FLY ASH BI-PRODUCT - 68131-74-8	0.1
XYLENE - 1330-20-7	1.0
ETHYL BENZENE - 100-41-4	0.1
N-BUTANOL (SKIN) - 71-36-3	1.0
COPPER COMPOUNDS - 147-14-8	1.0
ALUMINUM OXIDES - 1344-28-1	1.0
FORMALDEHYDE - 50-00-0	0.1
COPPER COMPOUND - 28654-73-1	1.0
BARIUM SULFATE (TOTAL DUST) - 7727-43-7	1.0

**SARA 311/312 Hazardous**

**Categorization**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	Yes
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8		X		
XYLENE 1330-20-7	100 lb			X
ETHYL BENZENE 100-41-4	1000 lb	X	X	X
COPPER COMPOUNDS 147-14-8		X		
FORMALDEHYDE 50-00-0	100 lb			X

COPPER COMPOUND 28654-73-1		X		
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**CERCLA**

Component	Hazardous Substances RQs	CERCLA EHS RQs	RQ
XYLENE 1330-20-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
ETHYL BENZENE 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
N-BUTANOL (SKIN) 71-36-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
FORMALDEHYDE 50-00-0	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

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

WARNING! This product contains a chemical known in the State of California to cause cancer

Component	California Prop. 65
CRYSTALLINE SILICA (QUARTZ) - 14808-60-7	Carcinogen
COAL FIRED FLY ASH BI-PRODUCT - 68131-74-8	Carcinogen
TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7	Carcinogen
ETHYL BENZENE - 100-41-4	Carcinogen
CRYSTALLINE SILICA (QUARTZ) - 14808-60-7	Carcinogen
FORMALDEHYDE - 50-00-0	Carcinogen

**California SCAQMD Rule 443**

Contains Photochemically Reactive Solvent

**State Right-to-Know**

Component	New Jersey	Massachusetts	Pennsylvania
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	X	X	X
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8	X		X
XYLENE 1330-20-7	X	X	X
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	X	X	X
ETHYL BENZENE 100-41-4	X	X	X
N-BUTANOL (SKIN) 71-36-3	X	X	X
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	X	X	X
COPPER COMPOUNDS 147-14-8	X		X
AMORPHOUS SILICA 7631-86-9	X	X	X
ALUMINUM OXIDES 1344-28-1	X	X	X
FORMALDEHYDE 50-00-0	X	X	X
ZIRCONIUM OXIDE 1314-23-4		X	
COPPER COMPOUND 28654-73-1	X		X
BARIUM SULFATE (TOTAL DUST) 7727-43-7	X	X	X

**16. OTHER INFORMATION**

**NFPA**  
**HMIS (Hazardous**  
**Material Information**  
**System)**

Health 3  
Health 3\*

Flammability 1  
Flammability 1

Instability 1  
Reactivity 1

Physical hazard \*

**Prepared By**  
**Revision Date**  
**Revision Summary**  
9 4 5 7 10 8 11 14

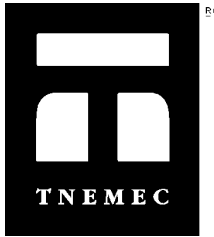
Tnemec Regulatory Dept: 816-474-3400  
11-Jul-2016

**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 28-Aug-2018

Revision Date 23-Mar-2017

Revision Number 7

## 1. IDENTIFICATION

### Product identifier

**Product Code** G396-0396B  
**Product Name** GLASS ARMOR 960 ACTIVATOR

### Other means of identification

**Common Name** SERIES 396, 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. 6800 Corporate Drive, Kansas City, MO 64120-1372 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)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Reproductive Toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 2
Specific target organ toxicity (repeated exposure)	Category 1

### Label elements

#### EMERGENCY OVERVIEW

**Danger**

#### **Hazard statements**

Harmful if swallowed  
Causes skin irritation  
Causes serious eye irritation  
May cause an allergic skin reaction  
May cause genetic defects  
May cause cancer  
Suspected of damaging fertility or the unborn child

May cause damage to organs  
Causes damage to organs through prolonged or repeated exposure



**Appearance** amber

**Physical state** liquid

**Odor** amine

### 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  
Do not eat, drink or smoke when using this product  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves  
Do not breathe dust/fume/gas/mist/vapors/spray

#### Response

IF exposed or concerned: Get medical advice/attention  
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  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
Rinse mouth

#### Storage

Store locked up  
Keep away from children

#### Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

If product is in liquid or paste form, physical or health hazards listed related to dust are not considered significant. However, product may contain substances that could be potential hazards if caused to become airborne due to grinding, sanding or other abrasive processes.

May be harmful by inhalation

#### Other information

Harmful to aquatic life with long lasting effects  
Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure). Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs  
SEE SAFETY DATA SHEET

Acute Toxicity 12.07420299 % of the mixture consists of ingredient(s) of unknown toxicity.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	30 - <60%
BENZYL ALCOHOL	100-51-6	10 - <30%
COAL FIRED FLY ASH BI-PRODUCT	68131-74-8	10 - <30%

M-XYLENEDIAMINE	1477-55-0	10 - <30%
CYCLOALIPHATIC POLYAMINE	-	10 - <30%
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	1 - <10%
METHYLENEDI(CYCLOHEXYLAMINE)	1761-71-3	1 - <10%
NON-HAZARDOUS THIXOTROPE	-	1 - <10%
DIETHYLENE TRIAMINE	111-40-0	1 - <10%
MODIFIED ALIPHATIC AMINE	-	1 - <10%
P-P'-ISOPROPYLIDENEDIPHENOL	80-05-7	0.1 - <1%
XYLENE	1330-20-7	0.1 - <1%
AROMATIC PETROLEUM DISTILLATE	64742-95-6	0.1 - <1%
LEVELING AGENT	-	0.1 - <1%
AMORPHOUS SILICA	7631-86-9	0.1 - <1%
ETHYL BENZENE	100-41-4	0.1 - <1%
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	0.1 - <1%
ALUMINUM OXIDES	1344-28-1	0.1 - <1%
ALUMINUM HYDROXIDE	21645-51-2	0 - <0.1%
NON-HAZARDOUS MATERIAL	C551	0 - <0.1%
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	0 - <0.1%
ZIRCONIUM OXIDE	1314-23-4	0 - <0.1%

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

#### 4. FIRST AID MEASURES

##### Description of first aid measures

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

Foam. Carbon dioxide. Dry chemical.

**Unsuitable extinguishing media** Water.

##### 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. Carbon oxides. Hydrocarbons. Nitrogen oxides (NOx). Ammonia. Nitric acid. Nitric acid, nitrosamine. Phenolics.



**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, protective equipment and emergency procedures**

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

**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** 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.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling** Close container after each use. Avoid contact with eyes, skin 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.

**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** Acids. Hypochlorites. Nitrous acid and other nitrosating agents. Peroxides. Water, alcohols, amines, strong bases, metal components, surface active materials.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters****Exposure guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	TWA: 0.025 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> TWA: 50 µg/m <sup>3</sup>	50 mg/m <sup>3</sup>
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8	TWA: 1 mg/m <sup>3</sup>	-	100 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>
M-XYLENEDIAMINE 1477-55-0	Skin Ceiling: 0.1 mg/m <sup>3</sup>	Skin Ceiling: 0.1 mg/m <sup>3</sup>	
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	5000 mg/m <sup>3</sup>

DIETHYLENE TRIAMINE 111-40-0	TWA: 1 ppm Skin	TWA: 1 ppm TWA: 4 mg/m <sup>3</sup>	
XYLENE 1330-20-7	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup> STEL: 150 ppm STEL: 655 mg/m <sup>3</sup>	
AMORPHOUS SILICA 7631-86-9	-	TWA: 6 mg/m <sup>3</sup>	3000 mg/m <sup>3</sup>
ETHYL BENZENE 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup> STEL: 125 ppm STEL: 545 mg/m <sup>3</sup>	800 ppm
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	TWA: 0.025 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> TWA: 50 µg/m <sup>3</sup>	50 mg/m <sup>3</sup>
ALUMINUM OXIDES 1344-28-1	TWA: 1 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	
ALUMINUM HYDROXIDE 21645-51-2	TWA: 1 mg/m <sup>3</sup>	-	
ZIRCONIUM OXIDE 1314-23-4	TWA: 5 mg/m <sup>3</sup>	-	25 mg/m <sup>3</sup>

**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**

<b>Physical state</b>	liquid	<b>Odor</b>	amine
<b>Appearance</b>	amber	<b>Odor threshold</b>	No information available
<b>Color</b>	No information available		
<b>Property</b>	<b>Values</b>	<b>Remarks</b>	
<b>pH</b>		No data available	
<b>Melting point / freezing point</b>	No data available	No data available	
<b>Boiling point / boiling range</b>	72 °C / 162 °F		
<b>Flash point</b>	99 °C / 210.0 °F	Pensky Martens - Closed Cup	
<b>Evaporation rate</b>		No data available	

<b>Flammability (solid, gas)</b>	No data available	No information available
<b>Flammability Limit in Air</b>		No data available
<b>Upper flammability limit</b>	N/A	
<b>Lower flammability limit</b>	N/A	
<b>Vapor pressure</b>		No data available
<b>Vapor density</b>		No data available
<b>Specific gravity</b>	1.42443	g/cm <sup>3</sup>
<b>Water solubility</b>	Insoluble in cold water	
<b>Solubility in other solvents</b>		No data available
<b>Partition coefficient: n-octanol/water</b>		No data available
<b>Autoignition temperature</b>	No data available	No data available
<b>Decomposition temperature</b>		No data available
<b>Kinematic viscosity</b>		No data available
<b>Dynamic viscosity</b>		No data available

**Other Information**

<b>Density</b>	11.87977 lbs/gal
<b>Volatile organic compounds (VOC) content</b>	0.32551 lbs/gal
<b>Total volatiles weight percent</b>	2.74 %
<b>Total volatiles volume percent</b>	4.13 %
<b>Bulk density</b>	No information available

<b>10. STABILITY AND REACTIVITY</b>
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**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. Epoxy constituents.

**Incompatible materials**

Acids, Hypochlorites, Nitrous acid and other nitrosating agents, Peroxides, Water, alcohols, amines, strong bases, metal components, surface active 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. Carbon oxides. Hydrocarbons. Nitrogen oxides (NO<sub>x</sub>). Ammonia. Nitric acid, nitrosamine. Phenolics.

<b>11. TOXICOLOGICAL INFORMATION</b>
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**Information on Likely Routes of Exposure**

<b>Inhalation</b>	May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. May cause sensitization of susceptible persons.
<b>Eye contact</b>	Severely irritating to eyes.
<b>Skin contact</b>	Irritating to skin. May cause sensitization of susceptible persons.
<b>Ingestion</b>	Harmful if swallowed.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
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BENZYL ALCOHOL 100-51-6	= 1230 mg/kg ( Rat )	= 2 g/kg ( Rabbit )	= 8.8 mg/L ( Rat ) 4 h
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8	> 2000 mg/kg ( Rat )	-	-
M-XYLENEDIAMINE 1477-55-0	= 660 mg/kg ( Rat )	= 2 g/kg ( Rabbit )	= 700 ppm ( Rat ) 1 h
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	> 10000 mg/kg ( Rat )	-	-
METHYLENEDI(CYCLOHEXYLAMI NE) 1761-71-3	= 1000 mg/kg ( Rat )	-	-
DIETHYLENE TRIAMINE 111-40-0	= 1080 mg/kg ( Rat )	= 672 mg/kg ( Rabbit )	= 70 mg/L ( Rat ) 4 h
P-P'-ISOPROPYLIDENEDIPHENO L 80-05-7	= 3300 mg/kg ( Rat )	= 3 mL/kg ( Rabbit )	> 170 mg/m <sup>3</sup> ( Rat ) 6 h
XYLENE 1330-20-7	= 3500 mg/kg ( Rat )	> 1700 mg/kg ( Rabbit ) > 4350 mg/kg ( Rabbit )	= 29.08 mg/L ( Rat ) 4 h = 5000 ppm ( Rat ) 4 h
AROMATIC PETROLEUM DISTILLATE 64742-95-6	= 8400 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	= 3400 ppm ( Rat ) 4 h
AMORPHOUS SILICA 7631-86-9	= 7900 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 2.2 mg/L ( Rat ) 1 h
ETHYL BENZENE 100-41-4	= 3500 mg/kg ( Rat )	= 15400 mg/kg ( Rabbit )	= 17.4 mg/L ( Rat ) 4 h
ALUMINUM OXIDES 1344-28-1	> 5000 mg/kg ( Rat )	-	-
ALUMINUM HYDROXIDE 21645-51-2	> 5000 mg/kg ( Rat )	-	-
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE 108-65-6	= 8532 mg/kg ( Rat )	> 5 g/kg ( Rabbit )	-

### Information on toxicological effects

#### Symptoms

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.  
Skin disorders.

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

#### Corrosivity

May be corrosive to metals.

#### Chronic Toxicity

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). Substances known to be mutagenic to man. Substances known to impair fertility.

#### Sensitization

May cause sensitization of susceptible persons.

#### Mutagenicity

May cause genetic defects.

#### Carcinogenicity

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

Chemical name	ACGIH	IARC	NTP	OSHA
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	A2	Group 1	Known	X
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8		Group 1	Known	
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7		Group 2B	-	X
XYLENE 1330-20-7		Group 3	-	
AROMATIC PETROLEUM DISTILLATE 64742-95-6	*	-	-	

AMORPHOUS SILICA 7631-86-9		Group 1 Group 3	Known	
ETHYL BENZENE 100-41-4	A3	Group 2B	-	X
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	A2	Group 1	Known	X

**Reproductive effects** Suspected of damaging fertility or the unborn child.  
**STOT - single exposure** Eyes, Respiratory system, Skin, Central Nervous System (CNS)  
**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure  
**Target organ effects** Eyes, Lungs, respiratory system, Skin, kidney, liver, Nasal Cavities, Reproductive System.  
**Aspiration hazard** No information available.

**Acute Toxicity** 12.07420299 % of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic life with long lasting effects

67.88734 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
BENZYL ALCOHOL 100-51-6	35: 3 h <i>Anabaena variabilis</i> mg/L EC50	460: 96 h <i>Pimephales promelas</i> mg/L LC50 static 10: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static	23: 48 h water flea mg/L EC50
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8			140 - 2000: 24 h <i>Daphnia magna</i> mg/L EC50
METHYLENEDI(CYCLOHEXYLAMINE) 1761-71-3		46 - 100: 96 h <i>Leuciscus idus</i> mg/L LC50 static	
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 430: 96 h <i>Leuciscus idus</i> mg/L LC50 semi-static 248: 96 h <i>Poecilia reticulata</i> mg/L LC50 static	16: 48 h <i>Daphnia magna</i> mg/L EC50 37: 24 h <i>Daphnia magna</i> mg/L EC50
P-P'-ISOPROPYLIDENEDIPHENOL 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 9.9: 96 h <i>Brachydanio rerio</i> mg/L LC50 static 4.0 - 5.5: 96 h <i>Pimephales promelas</i> mg/L LC50 static 4: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50	10.2: 48 h <i>Daphnia magna</i> mg/L EC50 9.2 - 11.4: 48 h <i>Daphnia magna</i> mg/L EC50 Static 3.9: 48 h <i>Daphnia magna</i> mg/L EC50
XYLENE 1330-20-7		LC50= 13.4 mg/L <i>Pimephales promelas</i> 96 h LC50 2.661 - 4.093 mg/L <i>Oncorhynchus mykiss</i> 96 h LC50 13.5 - 17.3 mg/L <i>Oncorhynchus mykiss</i> 96 h LC50 13.1 - 16.5 mg/L <i>Lepomis macrochirus</i> 96 h LC50= 19 mg/L <i>Lepomis macrochirus</i> 96 h LC50 7.711 - 9.591 mg/L <i>Lepomis macrochirus</i> 96 h LC50 23.53 - 29.97 mg/L <i>Pimephales promelas</i> 96 h LC50= 780 mg/L <i>Cyprinus carpio</i> 96 h LC50 > 780 mg/L <i>Cyprinus carpio</i> 96 h LC50 30.26 - 40.75 mg/L <i>Poecilia reticulata</i> 96 h	EC50 = 3.82 mg/L 48 h LC50 = 0.6 mg/L 48 h
AROMATIC PETROLEUM DISTILLATE 64742-95-6		9.22: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50	6.14: 48 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
ETHYL BENZENE 100-41-4	4.6: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 438: 96 h <i>Pseudokirchneriella subcapitata</i>	11.0 - 18.0: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static 9.1 - 15.6: 96 h <i>Pimephales promelas</i> mg/L	1.8 - 2.4: 48 h <i>Daphnia magna</i> mg/L EC50

	mg/L EC50 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static 9.6: 96 h Poecilia reticulata mg/L LC50 static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through 4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static	
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE 108-65-6		161: 96 h Pimephales promelas mg/L LC50 static	500: 48 h Daphnia magna mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility in Environmental Media**

Chemical name	log Pow
BENZYL ALCOHOL 100-51-6	1.1
METHYLENEDI(CYCLOHEXYLAMINE) 1761-71-3	2.03
DIETHYLENE TRIAMINE 111-40-0	-1.3
P-P'-ISOPROPYLIDENEDIPHENOL 80-05-7	2.2
XYLENE 1330-20-7	2.77
ETHYL BENZENE 100-41-4	3.118
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE 108-65-6	0.43

**Other Adverse Effects**

No information available

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods****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 to an approved waste handling site for recycling or disposal.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
XYLENE 1330-20-7		Included in waste stream: F039		U239
ETHYL BENZENE 100-41-4		Included in waste stream: F039		

Chemical name	CAWAST
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8	Toxic Corrosive
DIETHYLENE TRIAMINE 111-40-0	Toxic
XYLENE 1330-20-7	Toxic Ignitable
ETHYL BENZENE 100-41-4	Toxic Ignitable

### 14. TRANSPORT INFORMATION

**DOT**

Proper Shipping Name

PAINT & RELATED MATERIAL NOT REGULATED

**Additional information**

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

**15. REGULATORY INFORMATION**

**International Inventories**

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

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - 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

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

<b>Chemical name</b>	<b>HAPS Data</b>
COAL FIRED FLY ASH BI-PRODUCT	
XYLENE	
ETHYL BENZENE	

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or 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
COAL FIRED FLY ASH BI-PRODUCT - 68131-74-8	0.1
P-P'-ISOPROPYLIDENEDIPHENOL - 80-05-7	1.0
XYLENE - 1330-20-7	1.0
ETHYL BENZENE - 100-41-4	0.1
ALUMINUM OXIDES - 1344-28-1	1.0

**SARA 311/312 Hazardous**

**Categorization**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	Yes
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8		X		
XYLENE 1330-20-7	100 lb			X
ETHYL BENZENE	1000 lb	X	X	X

100-41-4			
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Chemical name	Hazardous Substances RQs	CERCLA EHS RQs	RQ
XYLENE 1330-20-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
ETHYL BENZENE 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

**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](http://www.P65Warnings.ca.gov).

Chemical name	California Prop. 65
CRYSTALLINE SILICA (QUARTZ) - 14808-60-7	Carcinogen
COAL FIRED FLY ASH BI-PRODUCT - 68131-74-8	Carcinogen
TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7	Carcinogen
P-P'-ISOPROPYLIDENEDIPHENOL - 80-05-7	Female Reproductive
AMORPHOUS SILICA - 7631-86-9	Carcinogen
ETHYL BENZENE - 100-41-4	Carcinogen
CRYSTALLINE SILICA (QUARTZ) - 14808-60-7	Carcinogen

**California SCAQMD Rule 443**

Contains Photochemically Reactive Solvent

**State Right-to-Know**

Chemical name	New Jersey	Massachusetts	Pennsylvania
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	X	X	X
BENZYL ALCOHOL 100-51-6		X	X
COAL FIRED FLY ASH BI-PRODUCT 68131-74-8	X		X
M-XYLENEDIAMINE 1477-55-0	X	X	X
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	X	X	X
DIETHYLENE TRIAMINE 111-40-0	X	X	X
P-P'-ISOPROPYLIDENEDIPHENO L 80-05-7	X	X	X
XYLENE 1330-20-7	X	X	X
AMORPHOUS SILICA 7631-86-9		X	X
ETHYL BENZENE 100-41-4	X	X	X
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	X	X	X
ALUMINUM OXIDES 1344-28-1	X	X	X
ZIRCONIUM OXIDE 1314-23-4		X	

**16. OTHER INFORMATION**

**NFPA** Health 3 Flammability 1 Instability 1 Physical hazard \*  
**HMIS (Hazardous Material Information System)** Health 3\* Flammability 1 Reactivity 1

Prepared By Tnemec Regulatory Dept: 816-474-3400



Revision Date 23-Mar-2017

Revision Summary

9 4 5 6 7 10 8 11 14 15

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**