



# Safety Data Sheet

Issue Date 15-Mar-2018

Revision Date 15-Mar-2018

Revision Number 8

## 1. IDENTIFICATION

### Product identifier

**Product Code** G351-0351B  
**Product Name** TANK ARMOR 510 ACTIVATOR

### Other means of identification

**Common Name** SERIES 351, PART B  
**UN/ID no.** 3066  
**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
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 1

### Label elements

#### EMERGENCY OVERVIEW

**Danger**

#### **Hazard statements**

Causes serious eye irritation  
May cause genetic defects  
May cause cancer  
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  
 Use only outdoors or in a well-ventilated area  
 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  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 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.

**Other information**

Causes mild skin irritation  
 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).  
 Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs  
 SEE SAFETY DATA SHEET  
 Acute Toxicity 92.34108 % 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%
MODIFIED ALIPHATIC AMINE	90-72-2	1 - <10%
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	1 - <10%
NON-HAZARDOUS THIXOTROPE	-	1 - <10%
XYLENE	1330-20-7	1 - <10%
PHENOL (SKIN)	108-95-2	0.1 - <1%

ETHYL BENZENE	100-41-4	0.1 - <1%
AROMATIC PETROLEUM DISTILLATE	64742-95-6	0.1 - <1%

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

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<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.

##### 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. Bases. Acids. Metals. Hypochlorites. Peroxides.

## 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>
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>
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>	
PHENOL (SKIN) 108-95-2	TWA: 5 ppm Skin	TWA: 5 ppm TWA: 19 mg/m <sup>3</sup> Skin	250 ppm
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

### 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

<b>Eye/face protection</b>	Use chemical resistant splash type goggles. If splashes are likely to occur, wear face-shield.
<b>Skin and body protection</b>	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
<b>Respiratory protection</b>	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.
<b>General hygiene considerations</b>	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		

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
<b>pH</b>	No data available	No data available
<b>Melting point / freezing point</b>	No data available	No data available
<b>Boiling point / boiling range</b>	138 °C / 280.0 °F	
<b>Flash point</b>	No information available	
<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>	1.0	
<b>Vapor pressure</b>		No data available
<b>Vapor density</b>		No data available
<b>Specific gravity</b>	1.69344	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>	14.12326 lbs/gal
<b>Volatile organic compounds (VOC) content</b>	0.3206 lbs/gal
<b>Total volatiles weight percent</b>	2.27 %
<b>Total volatiles volume percent</b>	4.44 %
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available

### Chemical stability

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

Heat, flames and sparks. Epoxy constituents.

**Incompatible materials**

Strong oxidizing agents, Bases, Acids, Metals, Hypochlorites, Peroxides

**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. Nitrogen oxides (NOx). Hydrocarbons. Aldehydes. Ammonia. Sulfur oxides.

## 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.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
MODIFIED ALIPHATIC AMINE 90-72-2	= 1200 mg/kg ( Rat )	= 1280 mg/kg ( Rat )	-
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	> 10000 mg/kg ( Rat )	-	-
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
PHENOL (SKIN) 108-95-2	= 317 mg/kg ( Rat ) = 340 mg/kg ( Rat )	= 630 mg/kg ( Rabbit )	= 316 mg/m <sup>3</sup> ( Rat ) 4 h
ETHYL BENZENE 100-41-4	= 3500 mg/kg ( Rat )	= 15400 mg/kg ( Rabbit )	= 17.4 mg/L ( Rat ) 4 h
AROMATIC PETROLEUM DISTILLATE 64742-95-6	= 8400 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	= 3400 ppm ( Rat ) 4 h

**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).

**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
TITANIUM DIOXIDE		Group 2B	-	X

(TOTAL DUST) 13463-67-7				
XYLENE 1330-20-7		Group 3	-	
PHENOL (SKIN) 108-95-2		Group 3	-	
ETHYL BENZENE 100-41-4	A3	Group 2B	-	X
AROMATIC PETROLEUM DISTILLATE 64742-95-6	*	-	-	

<b>Reproductive effects</b>	No information available.
<b>STOT - single exposure</b>	No information available
<b>STOT - repeated exposure</b>	Causes damage to organs through prolonged or repeated exposure
<b>Target organ effects</b>	blood, Central nervous system, Gastrointestinal tract, Eyes, kidney, liver, Lungs, respiratory system, Skin, Reproductive System.
<b>Aspiration hazard</b>	No information available.
<b>Acute Toxicity</b>	92.34108 % of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Toxic to aquatic life with long lasting effects

92.65927 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
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
PHENOL (SKIN) 108-95-2	187 - 279: 72 h Desmodesmus subspicatus mg/L EC50 static 46.42: 96 h Pseudokirchneriella subcapitata mg/L EC50 0.0188 - 0.1044: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	5.0 - 12.0: 96 h Oncorhynchus mykiss mg/L LC50 20.5 - 25.6: 96 h Pimephales promelas mg/L LC50 static 11.9 - 50.5: 96 h Pimephales promelas mg/L LC50 flow-through 13.5: 96 h Lepomis macrochirus mg/L LC50 static 32: 96 h Pimephales promelas mg/L LC50 7.5 - 14: 96 h Oncorhynchus mykiss mg/L LC50 static 11.5: 96 h Lepomis macrochirus mg/L LC50 semi-static 27.8: 96 h Brachydanio rerio mg/L LC50 23.4 - 36.6: 96 h Oryzias latipes mg/L LC50 static 31: 96 h Poecilia reticulata mg/L LC50 semi-static 4.23 - 7.49: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.00175: 96 h Cyprinus carpio mg/L LC50 semi-static 34.09 - 47.64: 96 h Poecilia reticulata mg/L LC50 static 33.9 - 43.3: 96 h Oryzias latipes mg/L LC50 flow-through 5.449 - 6.789: 96 h Oncorhynchus mykiss mg/L LC50	10.2 - 15.5: 48 h Daphnia magna mg/L EC50 4.24 - 10.7: 48 h Daphnia magna mg/L EC50 Static

		flow-through 11.9 - 25.3: 96 h Lepomis macrochirus mg/L LC50 flow-through	
ETHYL BENZENE 100-41-4	438: 96 h Pseudokirchneriella subcapitata mg/L EC50 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	11.0 - 18.0: 96 h Oncorhynchus mykiss 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 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static 9.6: 96 h Poecilia reticulata mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static	1.8 - 2.4: 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

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility in Environmental Media**

Chemical name	log Pow
MODIFIED ALIPHATIC AMINE 90-72-2	0.219
XYLENE 1330-20-7	2.77
PHENOL (SKIN) 108-95-2	1.47
ETHYL BENZENE 100-41-4	3.118

**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.

**US EPA Waste Number**

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
PHENOL (SKIN) 108-95-2	U188	Included in waste streams: F039, K001, K022, K087 Included in waste stream: K060		U188
ETHYL BENZENE 100-41-4		Included in waste stream: F039		
ISOBUTYL ALCOHOL 78-83-1	U140	Included in waste streams: F005, F039		U140
CUMENE 98-82-8				U055



## California Hazardous Waste Status

Chemical name	CAWAST
XYLENE 1330-20-7	Toxic Ignitable
PHENOL (SKIN) 108-95-2	Toxic Corrosive
ETHYL BENZENE 100-41-4	Toxic Ignitable

## 14. TRANSPORT INFORMATION

DOT

UN/ID no. 3066  
 Proper Shipping Name paint  
 Hazard Class 8  
 Packing Group III  
 Emergency Response Guide Number 153

Additional information

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

## 15. REGULATORY INFORMATION

International Inventories

TSCA Complies  
 DSL/NDSL Complies  
 EINECS/ELINCS Does Not Comply  
 ENCS Does Not Comply  
 IECSC Complies  
 KECL Complies  
 PICCS Does Not Comply  
 AICS 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):**

Chemical name

HAPS Data

XYLENE  
 PHENOL (SKIN)  
 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
XYLENE - 1330-20-7	1.0
PHENOL (SKIN) - 108-95-2	1.0
ETHYL BENZENE - 100-41-4	0.1

**SARA 311/312 Hazardous**

**Categorization**

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

**Clean Water Act**

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
XYLENE 1330-20-7	100 lb			X
PHENOL (SKIN) 108-95-2	1000 lb	X	X	X
ETHYL BENZENE 100-41-4	1000 lb	X	X	X

**CERCLA**

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
PHENOL (SKIN) 108-95-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ
ETHYL BENZENE 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

**California Prop. 65**

:This product can expose you to the following chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm. 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
TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7	Carcinogen
ETHYL BENZENE - 100-41-4	Carcinogen
CUMENE - 98-82-8	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
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	X	X	X
XYLENE 1330-20-7	X	X	X
PHENOL (SKIN) 108-95-2	X	X	X
ETHYL BENZENE 100-41-4	X	X	X

**16. OTHER INFORMATION**

<b>NFPA</b>	Health 3	Flammability 0	Instability 1	Physical hazard *
<b>HMIS (Hazardous Material Information System)</b>	Health 3*	Flammability 0	Reactivity 1	

Prepared By Tnemec Regulatory Dept: 816-474-3400

Revision Date 15-Mar-2018

Revision Summary

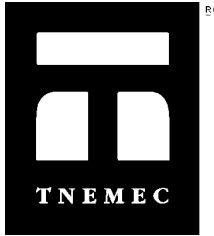
9 4 5 7 10 8 11 14 13 15

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**



# Safety Data Sheet

Issue Date 11-Jul-2016

Revision Date 11-Jul-2016

Revision Number 5

## 1. IDENTIFICATION

### Product identifier

**Product Code** G351-1232A  
**Product Name** GLASS ARMOR 510 BLUE

### Other means of identification

**Common Name** SERIES 351 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
Acute toxicity - Dermal	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  
 Harmful in contact with skin  
 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

**Appearance** blue**Physical state** liquid**Odor** 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  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 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.

**Other information**

May be harmful if inhaled  
 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). Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs  
 SEE SAFETY DATA SHEET  
 Acute Toxicity 2.93812 % of the mixture consists of ingredient(s) of unknown toxicity.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight-%
EPOXY RESIN (LER)	25085-99-8	30 - 60%
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	30 - 60%
PROPRIETARY	-	1 - 10%
d-LIMONENE	5989-27-5	1 - 10%
RHEOLOGY MODIFIER	100545-48-0	0.1 - 1%
AROMATIC PETROLEUM DISTILLATE	64742-95-6	0.1 - 1%
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	0.1 - 1%

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

### 4. FIRST AID MEASURES

#### Description of first aid measures

<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. 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. Bases. Acids. Amines.

**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>
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>

**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>	
<b>pH</b>		No data available	
<b>Melting point / freezing point</b>		No data available	
<b>Boiling point / boiling range</b>	171 °C / 339.0 °F		
<b>Flash point</b>	No information available		
<b>Evaporation rate</b>		No data available	
<b>Flammability (solid, gas)</b>		No information available	
<b>Flammability Limit in Air</b>		No data available	
<b>Upper flammability limit</b>	N/A		
<b>Lower flammability limit</b>	.7		
<b>Vapor pressure</b>		No data available	
<b>Vapor density</b>		No data available	
<b>Specific gravity</b>	1.52683	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	
<b>Decomposition temperature</b>		No data available	
<b>Kinematic viscosity</b>		No data available	
<b>Dynamic viscosity</b>	13000 centipoises		

**Other Information**

<b>Density</b>	12.7338 lbs/gal
<b>Volatile organic compounds (VOC) content</b>	0.20756 lbs/gal
<b>Total volatiles weight percent</b>	1.63 %
<b>Total volatiles volume percent</b>	2.96 %

## 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. Amines.

**Incompatible materials**

Strong oxidizing agents, Bases, Acids, Amines



**Hazardous decomposition products**

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

## 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 )		
d-LIMONENE 5989-27-5	= 4400 mg/kg ( Rat )	> 5 g/kg ( Rabbit )	
AROMATIC PETROLEUM DISTILLATE 64742-95-6	= 8400 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	= 3400 ppm ( Rat ) 4 h
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	> 10000 mg/kg ( Rat )		

**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
d-LIMONENE 5989-27-5		Group 2A Group 3		
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7		Group 2B		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, Reproductive System.

**Aspiration hazard** Based on product level data, this product does not meet the requirement to be classified as an aspiration hazard. However, this product contains an ingredient that may cause aspiration if swallowed.

**Acute Toxicity** 2.93812 % of the mixture consists of ingredient(s) of unknown toxicity.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Toxic to aquatic life with long lasting effects

46.72332 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Component	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
EPOXY RESIN (LER) 25085-99-8	11 mg/L 72 hr	2 mg/L 96 hr Oncorhynchus mykiss	1.8 mg/L 48h
d-LIMONENE 5989-27-5		0.619 - 0.796: 96 h Pimephales promelas mg/L LC50 flow-through 35: 96 h Oncorhynchus mykiss mg/L LC50	
AROMATIC PETROLEUM DISTILLATE 64742-95-6		9.22: 96 h Oncorhynchus mykiss mg/L LC50	6.14: 48 h Daphnia magna mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility in Environmental Media**

**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	CAWAST
d-LIMONENE 5989-27-5	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**

TSCA

Complies

DSL/NDSL

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>	Does not comply
<b>AICS</b>	Does not comply

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

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

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

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

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

### United States of America

#### **SARA 313**

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

#### **SARA 311/312 Hazardous**

##### Categorization

<b>Acute Health Hazard</b>	Yes
<b>Chronic 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

#### **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
TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7	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
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	X	X	X

## 16. OTHER INFORMATION

**NFPA**                      Health 3                      Flammability 0                      Instability 1                      Physical hazard \*

**HMIS (Hazardous  
Material Information  
System)**

Health 3\*

Flammability 0

Reactivity 1

**Prepared By**

Tnemec Regulatory Dept: 816-474-3400

**Revision Date**

11-Jul-2016

**Revision Summary**

9 4 5 7 8 10 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 or 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**