

Safety Data Sheet

Issue Date No data available

Revision Date 06-Mar-2015

Revision Number 5

1. IDENTIFICATION

Product identifier

Product Code F073-00WHA
Product Name ENDURA-SHIELD TNEMEC WHITE

Other means of identification

Common Name SERIES 73 PART A
UN/ID no. 1263

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

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 - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2A
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Flammable Liquids	Category 2

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements

Harmful if swallowed
 Causes serious eye irritation
 May cause cancer
 May damage fertility or the unborn child
 May cause respiratory irritation. May cause drowsiness or dizziness
 Causes damage to organs through prolonged or repeated exposure
 Harmful if inhaled
 May cause genetic defects
 Highly flammable liquid and vapor

**Appearance** opaque**Physical state** liquid**Odor** aromatic Petroleum distillates**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
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting/mixing/equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Keep cool

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 (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 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
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed
 Keep away from children

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other information**

Causes mild skin irritation

May be harmful in contact with skin

Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).

SEE SAFETY DATA SHEET

Toxic to aquatic life with long lasting effects

Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs

Acute Toxicity 55.69779 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight-%
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	10 - 30%
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	10 - 30%
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	10 - 30%
METHYL ETHYL KETONE	78-93-3	1 - 10%
AMORPHOUS SILICA	7631-86-9	1 - 10%
BENZENE, 1,4-DIMETHYL	106-42-3	0.1 - 1%
ALUMINUM HYDROXIDE	21645-51-2	0.1 - 1%
BENZENE, 1,3-DIMETHYL	108-38-3	0.1 - 1%
ETHYL BENZENE	100-41-4	0.1 - 1%
ZIRCONIUM OXIDE	1314-23-4	0.1 - 1%
BENZENE, 1,2-DIMETHYL	95-47-6	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

General advice	If symptoms persist, call a physician.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	If swallowed, do not induce vomiting. Get medical attention immediately. Rinse mouth.
Self-protection of the first aider	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 (CO₂). 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.

Protective equipment and precautions for firefighters

Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. MAY CAUSE HEAT AND PRESSURE BUILD-UP IN CLOSED CONTAINERS. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, 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 away from heat, sparks and flame. Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

Incompatible products Acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH

TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	TWA: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 15 mg/m ³	5000 mg/m ³
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	TWA: 0.025 mg/m ³	TWA: 0.1 mg/m ³	50 mg/m ³
METHYL ETHYL KETONE 78-93-3	TWA: 200 ppm STEL: 300 ppm	TWA: 200 ppm TWA: 590 mg/m ³ STEL: 300 ppm STEL: 885 mg/m ³	3000 ppm
AMORPHOUS SILICA 7631-86-9	-	TWA: 6 mg/m ³	3000 mg/m ³
BENZENE, 1,4-DIMETHYL 106-42-3	TWA: 100 ppm STEL: 150 ppm	-	900 ppm
ALUMINUM HYDROXIDE 21645-51-2	TWA: 1 mg/m ³	-	
BENZENE, 1,3-DIMETHYL 108-38-3	TWA: 100 ppm STEL: 150 ppm	-	900 ppm
ETHYL BENZENE 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³	800 ppm
ZIRCONIUM OXIDE 1314-23-4	TWA: 5 mg/m ³	-	25 mg/m ³
BENZENE, 1,2-DIMETHYL 95-47-6	TWA: 100 ppm STEL: 150 ppm	-	900 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**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

Do not eat, drink or smoke when using this product. This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	aromatic Petroleum distillates
Appearance	opaque	Odor threshold	No information available
Color	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH		No data available
Melting point / freezing point		No data available
Boiling point / boiling range	78 °C / 172.0 °F	
Flash point	13 °C / 55.0 °F	
Evaporation rate		Pensky Martens - Closed Cup
Flammability (solid, gas)		No data available
Flammability Limit in Air		No information available
Upper flammability limit	N/A	No data available
Lower flammability limit	1.5%	
Vapor pressure		No data available
Vapor density		No data available
Specific gravity	1.52315	g/cm ³
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	2000 centipoises	

Other Information

Density	12.70311 lbs/gal
Volatile organic compounds (VOC) content	3.07415 lbs/gal
Total volatiles weight percent	24.2 %
Total volatiles volume percent	40.24 %

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. Reacts with air to form peroxides.

Incompatible materials

Acids, Strong oxidizing agents

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.

11. TOXICOLOGICAL INFORMATION**Information on Likely Routes of Exposure**

Inhalation	May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.
Eye contact	Causes serious eye irritation.
Skin contact	Irritating to skin.

Ingestion

Harmful if swallowed.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	> 10000 mg/kg (Rat)		
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE 108-65-6	= 8532 mg/kg (Rat)	> 5 g/kg (Rabbit)	
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	= 500 mg/kg (Rat)		
METHYL ETHYL KETONE 78-93-3	= 2737 mg/kg (Rat) = 2483 mg/kg (Rat)	= 5000 mg/kg (Rabbit) = 6480 mg/kg (Rabbit)	= 11700 ppm (Rat) 4 h
AMORPHOUS SILICA 7631-86-9	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h
BENZENE, 1,4-DIMETHYL 106-42-3	= 4029 mg/kg (Rat)		= 4740 ppm (Rat) 4 h = 4550 ppm (Rat) 4 h
ALUMINUM HYDROXIDE 21645-51-2	> 5000 mg/kg (Rat)		
BENZENE, 1,3-DIMETHYL 108-38-3	= 5000 mg/kg (Rat)	= 14100 µL/kg (Rabbit)	
ETHYL BENZENE 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
BENZENE, 1,2-DIMETHYL 95-47-6	= 3608 mg/kg (Rat)	= 14100 mg/kg (Rabbit)	= 4330 ppm (Rat) 6 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

Chronic Toxicity

Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure). 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.

Sensitization

No information available.

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
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7		Group 2B		X
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	A2	Group 1	Known	X
AMORPHOUS SILICA 7631-86-9		Group 3		
BENZENE, 1,4-DIMETHYL 106-42-3		Group 3		
BENZENE, 1,3-DIMETHYL 108-38-3		Group 3		
ETHYL BENZENE 100-41-4	A3	Group 2B		X
BENZENE, 1,2-DIMETHYL 95-47-6		Group 3		

Reproductive effects

May damage fertility or the unborn child.

STOT - single exposure

Eyes, Central Nervous System (CNS), Skin

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure

Target organ effects

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

Aspiration hazard

No information available.

Acute Toxicity

55.69779 % of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Toxic to aquatic life with long lasting effects

48.07419 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Component	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
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
METHYL ETHYL KETONE 78-93-3		3130 - 3320: 96 h Pimephales promelas mg/L LC50 flow-through	5091: 48 h Daphnia magna mg/L EC50 520: 48 h Daphnia magna mg/L EC50 4025 - 6440: 48 h Daphnia magna mg/L EC50 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
BENZENE, 1,4-DIMETHYL 106-42-3	3.2: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 105.1: 3 h Chlorella vulgaris mg/L EC50	2.6: 96 h Oncorhynchus mykiss mg/L LC50 8.8: 96 h Poecilia reticulata mg/L LC50 semi-static 7.2 - 9.9: 96 h Pimephales promelas mg/L LC50 static 2.6: 96 h Oncorhynchus mykiss mg/L LC50 static	3.55 - 6.31: 48 h Daphnia magna mg/L EC50 Static
BENZENE, 1,3-DIMETHYL 108-38-3	4.9: 72 h Pseudokirchneriella subcapitata mg/L EC50 static	8.4: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 14.3 - 18: 96 h Pimephales promelas mg/L LC50 flow-through 12.9: 96 h Poecilia reticulata mg/L LC50 semi-static	2.81 - 5.0: 48 h Daphnia magna mg/L EC50 Static
ETHYL BENZENE 100-41-4	4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 438: 96 h Pseudokirchneriella subcapitata 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	11.0 - 18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static 4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through 9.6: 96 h Poecilia reticulata mg/L LC50 static 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static	1.8 - 2.4: 48 h Daphnia magna mg/L EC50
BENZENE, 1,2-DIMETHYL 95-47-6	4.2: 192 h Pseudokirchneriella subcapitata mg/L EC50 4.7: 72 h Pseudokirchneriella subcapitata mg/L EC50 static	11.6 - 22.4: 96 h Pimephales promelas mg/L LC50 flow-through 12: 96 h Poecilia reticulata mg/L LC50 11.6 - 22.4: 96 h Lepomis macrochirus mg/L LC50 flow-through 5.59 - 11.6: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	3.2: 48 h Daphnia magna mg/L EC50 0.78 - 2.51: 48 h Daphnia magna mg/L EC50 Static 2.61 - 5.59: 48 h Daphnia magna mg/L EC50 Flow through

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in Environmental Media

Component	log Pow
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE 108-65-6	0.43
METHYL ETHYL KETONE 78-93-3	0.29
BENZENE, 1,4-DIMETHYL 106-42-3	3.15

BENZENE, 1,3-DIMETHYL 108-38-3	3.2
ETHYL BENZENE 100-41-4	3.118
BENZENE, 1,2-DIMETHYL 95-47-6	3.12

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
METHYL ETHYL KETONE 78-93-3	U159	Included in waste streams: F005, F039	200.0 mg/L regulatory level	U159
ETHYL BENZENE 100-41-4		Included in waste stream: F039		

Component	CAWAST
METHYL ETHYL KETONE 78-93-3	Toxic Ignitable
ETHYL BENZENE 100-41-4	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

UN/ID no. 1263
 Proper Shipping Name paint
 Hazard Class 3
 Packing Group III
 Emergency Response Guide Number 128

IATA

UN/ID no. 1263
 Proper Shipping Name paint
 Hazard Class 3
 Packing Group III
 ERG Code 366

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
 EINECS/ELINCS Does not comply
 ENCS Does not comply
 IECSC Complies

KECL Does not comply
 PICCS Does not comply
 AICS Complies

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):
Component HAPS Data

BENZENE, 1,4-DIMETHYL
 BENZENE, 1,3-DIMETHYL
 ETHYL BENZENE
 BENZENE, 1,2-DIMETHYL

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
METHYL ETHYL KETONE - 78-93-3	1.0
BENZENE, 1,4-DIMETHYL - 106-42-3	1.0
BENZENE, 1,3-DIMETHYL - 108-38-3	1.0
ETHYL BENZENE - 100-41-4	0.1
BENZENE, 1,2-DIMETHYL - 95-47-6	1.0

SARA 311/312 Hazardous

Categorization

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

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
BENZENE, 1,4-DIMETHYL 106-42-3				X
BENZENE, 1,3-DIMETHYL 108-38-3				X
ETHYL BENZENE 100-41-4	1000 lb	X	X	X
BENZENE, 1,2-DIMETHYL 95-47-6				X

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs	RQ
METHYL ETHYL KETONE 78-93-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
BENZENE, 1,4-DIMETHYL 106-42-3	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
BENZENE, 1,3-DIMETHYL 108-38-3	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

BENZENE, 1,2-DIMETHYL 95-47-6	1000 lb		RQ 1000 lb final RQ RQ 454 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
TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7	Carcinogen
CRYSTALLINE SILICA (QUARTZ) - 14808-60-7	Carcinogen
ETHYL BENZENE - 100-41-4	Carcinogen

California SCAQMD Rule 443

Contains Photochemically Reactive Solvent

State Right-to-Know

Component	New Jersey	Massachusetts	Pennsylvania
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	X	X	X
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	X	X	X
METHYL ETHYL KETONE 78-93-3	X	X	X
AMORPHOUS SILICA 7631-86-9	X	X	X
BENZENE, 1,4-DIMETHYL 106-42-3	X	X	X
BENZENE, 1,3-DIMETHYL 108-38-3	X	X	X
ETHYL BENZENE 100-41-4	X	X	X
ZIRCONIUM OXIDE 1314-23-4		X	
BENZENE, 1,2-DIMETHYL 95-47-6	X	X	X

16. OTHER INFORMATION

NFPA Health 2 Flammability 3 Instability 1 Physical hazard *
HMIS (Hazardous Material Information System) Health 2* Flammability 3 Reactivity 1

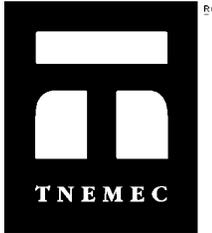
Prepared By Tnemec Regulatory Dept: 816-474-3400
 Revision Date 06-Mar-2015
 Revision Summary
 4 5 7 10 8 9 11 14

Disclaimer

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS



Safety Data Sheet

Issue Date 22-Jun-2015

Revision Date 22-Jun-2015

Revision Number 11

1. IDENTIFICATION

Product identifier

Product Code F073-0073B
Product Name ENDURA-SHIELD CONVERTER

Other means of identification

Common Name SERIES 73 PART B

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

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)

Serious eye damage/eye irritation	Category 2B
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Flammable Liquids	Category 3

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard statements

Causes eye irritation
May cause respiratory irritation. May cause drowsiness or dizziness
May cause damage to organs through prolonged or repeated exposure
Flammable liquid and vapor



Appearance clear

Physical state liquid

Odor aromatic

Precautionary Statements

Prevention

- Wash face, hands and any exposed skin thoroughly after handling
- Use only outdoors or in a well-ventilated area
- Do not breathe dust/fume/gas/mist/vapors/spray
- Keep away from heat/sparks/open flames/hot surfaces. — No smoking
- Keep container tightly closed
- Ground/bond container and receiving equipment
- Use explosion-proof electrical/ventilating/lighting/mixing/equipment
- Use only non-sparking tools
- Take precautionary measures against static discharge
- Wear protective gloves/protective clothing/eye protection/face protection
- Keep cool

Response

- Get medical advice/attention if you feel unwell
- 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 (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician if you feel unwell
- In case of fire: Use CO2, dry chemical, or foam for extinction

Storage

- Store in a well-ventilated place. Keep container tightly closed
- Store locked up

Disposal

- Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

- May be harmful in contact with skin
- Toxic to aquatic life with long lasting effects
- Acute Toxicity 1E-06 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight-%
HEXAMETHYLENE DIISOCYANATE (HDI) POLYMER	28182-81-2	30 - 60%
P-CHLOROBENZOTRIFLUORIDE	98-56-6	30 - 60%
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	822-06-0	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

General advice	Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Remove affected individual to fresh air. Treat symptomatically. If breathing is difficult, administer oxygen. If breathing has stopped give artificial respiration. Consult a physician.
Ingestion	If swallowed, do not induce vomiting. Get medical attention immediately.
Self-protection of the first aider	Use personal protective equipment. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Most important symptoms and effects Breathing difficulties. Asthma-like and/ or skin allergy-like symptoms.

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Foam, carbon dioxide, and 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.

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all sources of ignition. Keep people away from and upwind of spill/leak. 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	Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling. Do not breathe vapours or spray mist.
-----------------	--

Conditions for safe storage, including any incompatibilities

Storage	Close container after each use. Keep away from heat, sparks and flame. Use only in an area containing flame proof equipment. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation. Keep out of the reach of children.
Incompatible products	Incompatible with strong acids and bases. Water. Alcohols. Amines. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
P-CHLOROBENZOTRIFLUORIDE 98-56-6	TWA: 2.5 mg/m ³	-	
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER 822-06-0	TWA: 0.005 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

Eye/face protection	Safety glasses with side-shields 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

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

General hygiene considerations

Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	aromatic
Appearance	clear	Odor threshold	No information available
Color	No information available		
Property	Values	Remarks	
pH		No data available	
Melting point / freezing point		No data available	
Boiling point / boiling range	139.0 °C / 282.0 °F		
Flash point	40 °C / 104.0 °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	N/A		
Vapor pressure		No data available	
Vapor density		No data available	
Specific gravity	1.23332	g/cm ³	
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	60 centipoises		

Other Information

Density	10.26311 lbs/gal
Volatile organic compounds (VOC) content	.000 lbs/gal
Total volatiles weight percent	49.0030 %
Total volatiles volume percent	44.9040 %

10. STABILITY AND REACTIVITY

Reactivity

Water reactive, Amines, Alcohols

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Protect from water. Heat, flames and sparks.

Incompatible materials

Incompatible with strong acids and bases, Water, Alcohols, Amines, Strong oxidizing agents

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 dioxide. Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation	May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. Contains isocyanate monomer. If subject to spray application, engineering and administrative controls must be instituted to maintain an exposure level below .005ppm. If these controls are not adequate, the use of an air-supplied respirator is mandatory. May cause sensitization by inhalation.
Eye contact	Irritating to eyes.
Skin contact	Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	Harmful if swallowed.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
HEXAMETHYLENE DIISOCYANATE (HDI) POLYMER 28182-81-2			= 18500 mg/m ³ (Rat) 1 h
P-CHLOROBENZOTRIFLUORIDE 98-56-6	= 13 g/kg (Rat)	> 2 mL/kg (Rabbit)	= 33 mg/L (Rat) 4 h
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER 822-06-0	= 738 mg/kg (Rat)	= 593 mg/kg (Rabbit)	= 0.06 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
-----------------	--

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

Chronic Toxicity	Avoid repeated exposure. Contains isocyanates. May produce an allergic reaction.
Sensitization	May cause sensitization of susceptible persons.
Mutagenicity	No information available.
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Reproductive effects	No information available.
STOT - single exposure	May cause disorder and damage to the, Respiratory system, liver, kidney
STOT - repeated exposure	Causes damage to organs through prolonged or repeated exposure, liver, kidney
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	1E-06 % of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

50.64002 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Component	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
P-CHLOROBENZOTRIFLUORIDE 98-56-6		11.5 - 15.8: 48 h Lepomis macrochirus mg/L LC50 static	3.68: 48 h Daphnia magna mg/L EC50
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER 822-06-0		26.1: 96 h Brachydanio rerio mg/L LC50 static	

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in Environmental Media

Component	log Pow
P-CHLOROBENZOTRIFLUORIDE 98-56-6	3.7

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

No data available

California Hazardous Waste Status

Not applicable

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name paint in oil Not regulated

IATA

UN/ID no. 1263
 Proper Shipping Name paint
 Hazard Class 3
 Packing Group III
 ERG Code 366

IMDG/IMO

Proper Shipping Name paint, 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

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
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):

Component	HAPS Data
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	

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
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER - 822-06-0	1.0

SARA 311/312 Hazardous

Categorization

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

Clean Water Act No information available

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs	RQ
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER 822-06-0	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

United States of America

California Prop. 65

This product does not contain any Proposition 65 chemicals

California SCAQMD Rule 443

Contains Photochemically Reactive Solvent

State Right-to-Know

Component	New Jersey	Massachusetts	Pennsylvania
P-CHLORO BENZOTRIFLUORIDE 98-56-6	X		X

HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER 822-06-0	X	X	
---	---	---	--

16. OTHER INFORMATION

NFPA	Health 2	Flammability 2	Instability 1	Physical hazard *
HMIS (Hazardous Material Information System)	Health 2*	Flammability 2	Reactivity 1	

Prepared By Tnemec Regulatory Dept: 816-474-3400
Revision Date 22-Jun-2015
Revision Summary
 4 5 7 10 11 14 6 9 8

Disclaimer

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS