



Safety Data Sheet

Issue Date 24-Oct-2018

Revision Date 24-Oct-2018

Revision Number 5

1. IDENTIFICATION

Product identifier

Product Code 1077-03MTA
Product Name ENDURALUME SILVER

Other means of identification

Common Name SERIES 1077, PART A
UN/ID no. 1263
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)

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 1B
Specific target organ toxicity (repeated exposure)	Category 1
Flammable Liquids	Category 3

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements

Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause genetic defects
May cause cancer
May damage fertility or the unborn child
Causes damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways
Flammable liquid and vapor



Appearance opaque

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

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 skin irritation or rash occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

Store locked up
Store in a well-ventilated place. Keep cool
Keep away from children

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

Toxic to aquatic life with long lasting effects

SEE SAFETY DATA SHEET

Acute Toxicity

47.74038 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	10 - <30%
XYLENE	1330-20-7	1 - <10%

ALUMINUM FLAKE	7429-90-5	1 - <10%
METHYL ETHYL KETONE	78-93-3	1 - <10%
ETHYL BENZENE	100-41-4	1 - <10%
AROMATIC PETROLEUM DISTILLATE	64742-95-6	1 - <10%
ALUMINUM FLAKE	7429-90-5	1 - <10%
MINERAL SPIRITS (STODDARD SOLVENT)	8052-41-3	1 - <10%
ORGANOPHILIC CLAY	C294	1 - <10%
MINERAL SPIRITS	8052-41-3	0.1 - <1%
BENZENE, 1,4-DIMETHYL	106-42-3	0.1 - <1%
PROPRIETARY	-	0.1 - <1%
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	0.1 - <1%
SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC	64742-94-5	0.1 - <1%
DISPERSING AGENT	68647-95-0	0.1 - <1%
BENZENE, 1,3-DIMETHYL	108-38-3	0.1 - <1%
PROPRIETARY	82919-37-7	0.1 - <1%
CARBON BLACK DUST & FUME	1333-86-4	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	Rinse thoroughly with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.
Skin contact	Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.
Inhalation	Remove to fresh air. Oxygen or artificial respiration if needed.
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

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. Oxides of nitrogen. Oxides of Aluminum.

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 container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

Incompatible products Strong oxidizing agents. Alkaline. Acids. Bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
XYLENE 1330-20-7	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 150 ppm STEL: 655 mg/m ³	
ALUMINUM FLAKE 7429-90-5	TWA: 1 mg/m ³	TWA: 15 mg/m ³ TWA: 5 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

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
ALUMINUM FLAKE 7429-90-5	TWA: 1 mg/m ³	TWA: 15 mg/m ³ TWA: 5 mg/m ³	
MINERAL SPIRITS (STODDARD SOLVENT) 8052-41-3	TWA: 100 ppm	TWA: 100 ppm TWA: 525 mg/m ³ TWA: 500 ppm TWA: 2900 mg/m ³	20000 mg/m ³
MINERAL SPIRITS 8052-41-3	TWA: 100 ppm	TWA: 100 ppm TWA: 525 mg/m ³ TWA: 500 ppm TWA: 2900 mg/m ³	20000 mg/m ³
BENZENE, 1,4-DIMETHYL 106-42-3	TWA: 100 ppm STEL: 150 ppm	-	900 ppm
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
BENZENE, 1,3-DIMETHYL 108-38-3	TWA: 100 ppm STEL: 150 ppm	-	900 ppm
CARBON BLACK DUST & FUME 1333-86-4	TWA: 3 mg/m ³	TWA: 3.5 mg/m ³	1750 mg/m ³

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

Physical state	liquid	Odor	Slight
Appearance	opaque	Odor threshold	No information available
Color	No information available		
Property	Values	Remarks	
pH		No data available	
Melting point / freezing point	No data available	No data available	
Boiling point / boiling range	78 °C / 172.0 °F		
Flash point	27 °C / 80.0 °F		Pensky Martens - Closed Cup

Evaporation rate		No data available
Flammability (solid, gas)	No data available	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	1.07634	g/cm3
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	No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity	950 centipoises	approx

Other Information

Density	8.97668 lbs/gal
Volatile organic compounds (VOC) content	3.96949 lbs/gal
Total volatiles weight percent	44.22 %
Total volatiles volume percent	52.13 %
Bulk density	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. Reacts with air to form peroxides. Contact with water liberates highly flammable gases.

Incompatible materials

Strong oxidizing agents, Alkaline, Acids, Bases

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. Oxides of Aluminum. Oxides of nitrogen.

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. May cause sensitization by skin contact.
Ingestion	Harmful if swallowed. Potential for aspiration if swallowed.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
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PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE 108-65-6	= 8532 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
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
METHYL ETHYL KETONE 78-93-3	= 2483 mg/kg (Rat) = 2737 mg/kg (Rat)	= 5000 mg/kg (Rabbit) = 6480 mg/kg (Rabbit)	= 11700 ppm (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
BENZENE, 1,4-DIMETHYL 106-42-3	= 4029 mg/kg (Rat)	-	= 4550 ppm (Rat) 4 h = 4740 ppm (Rat) 4 h
PROPRIETARY	= 2615 mg/kg (Rat)	-	-
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	> 10000 mg/kg (Rat)	-	-
SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC 64742-94-5	> 5000 mg/kg (Rat)	> 2 mL/kg (Rabbit)	> 590 mg/m ³ (Rat) 4 h
BENZENE, 1,3-DIMETHYL 108-38-3	= 5 g/kg (Rat)	= 12.18 g/kg (Rabbit) = 14100 µL/kg (Rabbit)	= 5984 ppm (Rat) 6 h
CARBON BLACK DUST & FUME 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

Information on toxicological effects**Symptoms**

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Skin disorders. Irritating to eyes and skin.

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.

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
XYLENE 1330-20-7		Group 3	-	
ETHYL BENZENE 100-41-4	A3	Group 2B	-	X
AROMATIC PETROLEUM DISTILLATE 64742-95-6	*	-	-	
BENZENE, 1,4-DIMETHYL 106-42-3		Group 3	-	
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7		Group 2B	-	X
BENZENE, 1,3-DIMETHYL 108-38-3		Group 3	-	
CARBON BLACK DUST & FUME 1333-86-4	A3	Group 2B	-	X

Reproductive effects

May damage fertility or the unborn child.

STOT - single exposure

No information available

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure

Target organ effects

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

Aspiration hazard

No information available.

Acute Toxicity

47.74038 % of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

56.022306371 % 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
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
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
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
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 9.1 - 15.6: 96 h Pimephales promelas mg/L 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	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
BENZENE, 1,4-DIMETHYL 106-42-3	105.1: 3 h Chlorella vulgaris mg/L EC50 3.2: 72 h Pseudokirchneriella subcapitata mg/L EC50 static	7.2 - 9.9: 96 h Pimephales promelas mg/L LC50 static 2.6: 96 h Oncorhynchus mykiss mg/L LC50 8.8: 96 h Poecilia reticulata mg/L LC50 semi-static 2.6: 96 h Oncorhynchus mykiss mg/L LC50 static	3.55 - 6.31: 48 h Daphnia magna mg/L EC50 Static
PROPRIETARY		0.97: 96 h Lepomis macrochirus mg/L LC50 static	20: 24 h Daphnia magna mg/L EC50
SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC 64742-94-5	2.5: 72 h Skeletonema costatum mg/L EC50	19: 96 h Pimephales promelas mg/L LC50 static 41: 96 h Pimephales promelas mg/L LC50 2.34: 96 h Oncorhynchus mykiss mg/L LC50 1740: 96 h Lepomis macrochirus mg/L LC50 static 45: 96 h Pimephales promelas mg/L LC50 flow-through	0.95: 48 h Daphnia magna mg/L EC50
BENZENE, 1,3-DIMETHYL 108-38-3	4.9: 72 h Pseudokirchneriella subcapitata mg/L EC50 static	14.3 - 18: 96 h Pimephales promelas mg/L LC50 flow-through 8.4: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 12.9: 96 h Poecilia reticulata mg/L LC50 semi-static	2.81 - 5.0: 48 h Daphnia magna mg/L EC50 Static
CARBON BLACK DUST & FUME			5600: 24 h Daphnia magna mg/L

1333-86-4			EC50
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Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in Environmental Media

Chemical name	log Pow
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE 108-65-6	0.43
XYLENE 1330-20-7	2.77
METHYL ETHYL KETONE 78-93-3	0.29
ETHYL BENZENE 100-41-4	3.118
MINERAL SPIRITS (STODDARD SOLVENT) 8052-41-3	3.16
BENZENE, 1,4-DIMETHYL 106-42-3	3.15
PROPRIETARY	0.37
SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC 64742-94-5	2.9
BENZENE, 1,3-DIMETHYL 108-38-3	3.2

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
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		
TOLUENE 108-88-3	U220	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151		U220

California Hazardous Waste Status

Chemical name	CAWAST
XYLENE 1330-20-7	Toxic Ignitable
ALUMINUM FLAKE 7429-90-5	Ignitable

METHYL ETHYL KETONE 78-93-3	Toxic Ignitable
ETHYL BENZENE 100-41-4	Toxic Ignitable
ALUMINUM FLAKE 7429-90-5	Ignitable

14. TRANSPORT INFORMATION

DOT

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

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

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
ALUMINUM FLAKE - 7429-90-5	1.0
METHYL ETHYL KETONE - 78-93-3	1.0
ETHYL BENZENE - 100-41-4	0.1
ALUMINUM FLAKE - 7429-90-5	1.0
BENZENE, 1,4-DIMETHYL - 106-42-3	1.0
BENZENE, 1,3-DIMETHYL - 108-38-3	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

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
XYLENE 1330-20-7	100 lb			X
ETHYL BENZENE 100-41-4	1000 lb	X	X	X
BENZENE, 1,4-DIMETHYL 106-42-3				X
BENZENE, 1,3-DIMETHYL 108-38-3				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
METHYL ETHYL KETONE 78-93-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
ETHYL BENZENE 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 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

California Prop. 65

WARNING: 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.

Chemical name	California Prop. 65
ETHYL BENZENE - 100-41-4	Carcinogen
TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7	Carcinogen
BENZENE, 1,3-DIMETHYL - 108-38-3	*
BENZENE, 1,2-DIMETHYL - 95-47-6	*
CARBON BLACK DUST & FUME - 1333-86-4	Carcinogen
STYRENE - 100-42-5	Carcinogen
CRYSTALLINE SILICA (QUARTZ) - 14808-60-7	Carcinogen
TOLUENE - 108-88-3	Developmental

California SCAQMD Rule 443

Contains Photochemically Reactive Solvent

State Right-to-Know

Chemical name	New Jersey	Massachusetts	Pennsylvania
XYLENE 1330-20-7	X	X	X
ALUMINUM FLAKE 7429-90-5	X	X	X
METHYL ETHYL KETONE 78-93-3	X	X	X
ETHYL BENZENE 100-41-4	X	X	X
ALUMINUM FLAKE 7429-90-5	X	X	X

MINERAL SPIRITS (STODDARD SOLVENT) 8052-41-3	X	X	X
MINERAL SPIRITS 8052-41-3	X	X	X
BENZENE, 1,4-DIMETHYL 106-42-3	X	X	X
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	X	X	X
BENZENE, 1,3-DIMETHYL 108-38-3	X	X	X
CARBON BLACK DUST & FUME 1333-86-4	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

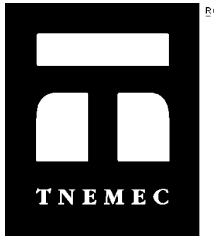
Prepared By Tnemec Regulatory Dept: 816-474-3400
Revision Date 24-Oct-2018
Revision Summary
 9 4 5 7 10 8 11 14 1 13 15

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 26-Jul-2018

Revision Date 26-Jul-2018

Revision Number 17

1. IDENTIFICATION

Product identifier

Product Code 1077-1077B
Product Name ENDURALUME CONVERTER

Other means of identification

Common Name SERIES 1077, 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 - Inhalation (Vapors)	Category 4
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements

Harmful if inhaled
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause respiratory irritation



Appearance clear**Physical state** liquid**Odor** odorless**Precautionary Statements****Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 In case of inadequate ventilation wear respiratory protection
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves

Response

Get medical advice/attention if you feel unwell
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

Storage

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

Disposal

Dispose of contents/container to an approved waste disposal plant

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

SEE SAFETY DATA SHEET

Contains isocyanates. May produce an allergic reaction

Acute Toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
HEXAMETHYLENE-1,6-DIISOCYANATE HOMOPOLYMER	28182-81-2	60 - 100%
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	If symptoms persist, call a physician.
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 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.

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

Foam. Dry chemical. Carbon dioxide.

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 dioxide. Nitrogen oxides (NOx). 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.

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.

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.

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 Water. Alcohols. Bases. Amines.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
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 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 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 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

Physical state	liquid	Odor	odorless
Appearance	clear	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	Literary Reference
Boiling point / boiling range	170 °C / 338 °F	
Flash point	No information available	Pensky Martens - Closed Cup
Evaporation rate		No data available
Flammability (solid, gas)	No data available	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	1.11726	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	No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity	700 centipoises	

Other Information

Density	9.31793 lbs/gal
Volatile organic compounds (VOC) content	0 lbs/gal
Total volatiles weight percent	0 %
Total volatiles volume percent	0 %
Bulk density	No information available

10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

May occur if in contact with moisture, other materials which react with isocyanates, or temperatures above 400 F.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Water, Alcohols, Bases, Amines

Hazardous decomposition productsHazardous 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. Nitrogen oxides (NO_x).**11. TOXICOLOGICAL INFORMATION****Information on Likely Routes of Exposure**

Inhalation	HARMFUL BY INHALATION. 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	Severely irritating to eyes.
Skin contact	Irritating to skin.
Ingestion	Harmful if swallowed.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
HEXAMETHYLENE-1,6-DIISOCYANATE HOMOPOLYMER 28182-81-2	-	-	= 18500 mg/m ³ (Rat) 1 h
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	= 738 mg/kg (Rat)	= 593 mg/kg (Rabbit)	= 0.06 mg/L (Rat) 4 h

822-06-0			
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Information on toxicological effects

Symptoms Skin disorders. Respiratory disorders.

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 Respiratory system, Lungs
STOT - repeated exposure No information available
Aspiration hazard No information available.

Acute Toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

100 % 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
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

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.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name PAINT & RELATED MATERIAL

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):

Chemical name	HAPS Data
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	

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

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

Chemical name	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

California Prop. 65

None of the ingredients are listed with California Proposition 65.

California SCAQMD Rule 443

Does Not Contain Photochemically Reactive Solvent

State Right-to-Know

Chemical name	New Jersey	Massachusetts	Pennsylvania
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER 822-06-0	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
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