

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product Identifier

Product Name EpoThin 2 Hardener
Product Code(s) 20-3442-016, 20-3442-064
(M)SDS Number 1501014_A

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory use
Uses advised against No information available

Details of the Supplier of the Safety Data Sheet

Manufacturer Buehler
Manufacturer Address 41 Waukegan Rd
Lake Bluff, IL 60044
www.buehler.com
Phone number +1 847 295 6500
E-mail address custserv@buehler.com

Emergency Telephone Number

Global Access Code: 334545
Americas: +1 760 476 3962
Middle East/Africa: +1 760 476 3959
Asia Pacific: +1 760 476 3960
Europe: +1 760 476 3961

2. Hazards Identification


Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 1 Sub-category A
Skin Sensitization	Category 1
Reproductive toxicity	Category 1B
Corrosive to Metals	

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Signal Word	DANGER		
hazard statements	Causes severe skin burns and eye damage May cause an allergic skin reaction May damage fertility or the unborn child		
			
Appearance	Clear	Physical state	Liquid
			Odor Acrid

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
 Do not breathe dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves

Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label)
 Immediately call a POISON CENTER or doctor/physician

EYES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician

skin

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 If skin irritation or rash occurs: Get medical advice/attention

INHALATION

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

INGESTION

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Rinse mouth
 Do NOT induce vomiting

Spill

Absorb spillage to prevent material damage

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)

Not Applicable

OTHER INFORMATION

Toxic to aquatic life with long lasting effects

Interactions with other chemicals

No information available.

3. Composition/information on Ingredients

Chemical name	CAS No.	Weight-%	Trade secret
Propylene glycol diamine, 2-amino-, diether with Propylene	9046-10-0	20 - 50%	*
p-tert-Butyl phenol	98-54-4	10 - 20%	*
m-Xylene-.alpha., .alpha.`-diamine	1477-55-0	10 - 20%	*
Triphenyl phosphite	101-02-0	0 - 20%	*
Triethylene tetramine	112-24-3	0 - 1%	*
Triethanolamine	102-71-6	0 - 20%	*
Piperazine	110-85-0	0 - 1%	*
1-(2-Aminoethyl) piperazine	140-31-8	0 - 1%	*

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

4. First Aid Measures**FIRST AID MEASURES****General advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention/advice.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required. May cause an allergic skin reaction.

INHALATION

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, (trained personnel should) give oxygen. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

INGESTION

Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. May produce an allergic reaction. If an allergic reaction occurs, stop use and seek medical help right away.

Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Most Important Symptoms and Effects, Both Acute and Delayed

Most important symptoms and effects Burning sensation. Coughing and/ or wheezing. Difficulty in breathing. Itching. Rashes. Hives. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

5. Fire-fighting measures

Suitable extinguishing media

Move containers from fire area if you can do it without risk. Dike fire control water for later disposal; do not scatter the material. Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards. Runoff may pollute waterways. Substance may be transported in a molten form.

Uniform Fire Code	Sensitizer: Liquid Toxic: Liquid Corrosive: Other--Liquid
--------------------------	---

Explosion Data

Sensitivity to mechanical impact NO.

Sensitivity to static discharge NO.

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	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if you can do it without risk. Wear protective gloves/protective clothing and eye/face protection.
OTHER INFORMATION	DO NOT GET WATER INSIDE CONTAINERS.
Advice for emergency responders	Use personal protective equipment as required. Use personal protection recommended in Section 8.

Environmental Precautions

Environmental Precautions	Prevent entry into waterways, sewers, basements or confined areas.
----------------------------------	--

Methods and material for containment and cleaning up

Methods for Containment	Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Dike far ahead of spill; use dry sand to contain the flow of material.
Methods for Cleaning Up	Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Pick up and transfer to properly labeled containers.

7. Handling and Storage

Precautions for Safe Handling

Handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.
-----------------	--

Conditions for safe storage, including any incompatibilities

Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials. Keep at a temperature not exceeding 50°C/122°F °C.
Incompatible products	Strong acids. Acids.

8. Exposure Controls/Personal Protection

Control Parameters

Exposure guidelines	The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure
----------------------------	---

limits from the sources listed here

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
m-Xylene-.alpha., .alpha.`-diamine 1477-55-0	S* Ceiling: 0.1 mg/m ³	(vacated) S* (vacated) Ceiling: 0.1 mg/m ³	Ceiling: 0.1 mg/m ³
Triethanolamine 102-71-6	TWA: 5 mg/m ³	-	
Piperazine 110-85-0	TWA: 0.03 ppm inhalable fraction and vapor	-	

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Appropriate Engineering Controls

Engineering Measures Showers Eyewash stations Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Face protection shield. Wear safety glasses with side shields (or goggles).

Skin and Body Protection Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves.

Respiratory Protection In case of insufficient ventilation, wear suitable respiratory equipment.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. For environmental protection, remove and wash all contaminated protective equipment before re-use.

9. Physical and Chemical Properties

Physical and chemical properties

Physical state	Liquid	Odor	Acrid
Appearance	Clear	Odor Threshold	No data available
Color	Clear		
Property	Values	Remarks	Method
pH	No data available		
Melting / freezing point	< 0 °C	None known	
Boiling point / boiling range	No data available	None known	
Flash Point	>90 °C	None known	
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air			
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	< 1 mm Hg	None known	
Vapor density	No data available	None known	
Specific gravity	1		
Water Solubility	Completely soluble		

Solubility in Other Solvents	no data available	None known
Partition coefficient: n-octanol/water	Data Lacking	
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	150 mm ² /s	None known
Dynamic viscosity	150 cP	None known
Explosive Properties	no data available	
Oxidizing Properties	no data available	

OTHER INFORMATION

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	

10. Stability and Reactivity

Reactivity

No data available.

Chemical Stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

Exposure to air or moisture over prolonged periods. Excessive heat.

Incompatible Materials

Strong acids. Acids.

Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx). Ammonia.

11. Toxicological Information

Information on likely routes of exposure**Product information****INHALATION**

Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract. Harmful by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause sensitization in susceptible persons.

Eye Contact

Specific test data for the substance or mixture is not available. Causes burns. (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.

Skin Contact

Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns. Toxic in contact with skin. May be absorbed through the skin in harmful amounts. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

INGESTION

Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. HARMFUL IF SWALLOWED. May cause additional effects as listed under "Inhalation".

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Propylene glycol diamine, 2-amino-, diether with Propylene 9046-10-0	= 242 mg/kg (Rat)	= 360 mg/kg (Rabbit)	-
p-tert-Butyl phenol 98-54-4	= 4000 mg/kg (Rat)	= 2318 mg/kg (Rabbit)	-
m-Xylene-.alpha., .alpha.`-diamine 1477-55-0	= 660 mg/kg (Rat)	= 2 g/kg (Rabbit)	= 700 ppm (Rat) 1 h
Triphenyl phosphite 101-02-0	= 444 mg/kg (Rat) = 1590 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 6.7 mg/L (Rat) 1 h
Triethylene tetramine 112-24-3	> 1000 mg/kg (Rat)	= 550 mg/kg (Rabbit)	-
Triethanolamine 102-71-6	= 4190 mg/kg (Rat)	> 16 mL/kg (Rat) > 20 mL/kg (Rabbit)	-
Piperazine 110-85-0	= 600 mg/kg (Rat)	= 1590 mg/kg (Rabbit)	-
1-(2-Aminoethyl) piperazine 140-31-8	= 2140 µL/kg (Rat)	= 880 µL/kg (Rabbit)	-

Symptoms related to the physical, chemical and toxicological characteristics**Symptoms**

Erythema (skin redness). Burning. MAY CAUSE BLINDNESS. Coughing and/ or wheezing. Itching. Rashes. Hives. 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.

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

May cause sensitization in susceptible persons. May cause sensitization by skin contact. May cause sensitization by inhalation.

Mutagenic effects

Contains a known or suspected mutagen.

carcinogenicity

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

Chemical name	ACGIH	IARC	NTP	OSHA
Triethanolamine 102-71-6		Group 3		

IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive Toxicity

Contains a known or suspected reproductive toxin.

STOT - Single Exposure	Based on classification criteria from the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200), this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). If this product is a mixture, the classification is not based on toxicology studies for this product, but is based solely on toxicology studies for ingredients found within this product. Detailed substance and/or ingredient information may be provided in other sections of this SDS. Target organs effects listed in this document may result from a single overexposure to this product. May cause damage to organs if swallowed. May cause damage to organs in contact with skin.
STOT - Repeated Exposure	Causes damage to organs through prolonged or repeated exposure. Based on classification criteria from the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200), this product has been determined to cause systemic target organ toxicity from chronic or repeated exposure. (STOT RE).
Chronic toxicity	Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Effects from this product caused by acute exposure may cause permanent damage to target organs and/or may cause chronic conditions. Prolonged exposure may cause chronic effects. Repeated contact may cause allergic reactions in very susceptible persons. Contains a known or suspected mutagen. Possible risk of irreversible effects. Contains a known or suspected reproductive toxin. Avoid repeated exposure. May cause adverse liver effects.
Target organ effects	Respiratory System. EYES. skin. Gastrointestinal tract (GI). May affect the genetic material in germ cells (sperm and eggs). Reproductive System. kidney. liver. blood. Cardiovascular System. digestive system. Lungs. spleen. systemic toxicity. thymus. Central Nervous System (CNS).
Aspiration hazard	No information available.

Numerical measures of toxicity Product Information

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

ATEmix (oral)

572.80 mg/kg

ATEmix (dermal)

922.20 mg/kg (ATE)

ATEmix (inhalation-gas)

58,800.00 ppm (4 hr)

ATEmix (inhalation-dust/mist)

42.08 mg/l

ATEmix (inhalation-vapor)

10.50 ATEmix

12. Ecological Information

ecotoxicity

Harmful to aquatic life. Very toxic to aquatic life with long lasting effects.

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
p-tert-Butyl phenol 98-54-4	72h EC50: = 11.2 mg/L (Desmodesmus subspicatus)	96h LC50: = 6.9 mg/L (Cyprinus carpio) 96h LC50: 4.71 - 5.62 mg/L (Pimephales promelas)	EC50 = 0.21 mg/L 5 min	48h EC50: = 3.9 mg/L 48h EC50: 3.4 - 4.5 mg/L
Triethylene tetramine 112-24-3	72h EC50: = 2.5 mg/L (Desmodesmus subspicatus) 96h EC50: = 3.7 mg/L (Pseudokirchneriella subcapitata) 72h EC50: = 20 mg/L (Pseudokirchneriella subcapitata)	96h LC50: = 570 mg/L (Poecilia reticulata) 96h LC50: = 495 mg/L (Pimephales promelas)		48h EC50: = 31.1 mg/L
Triethanolamine 102-71-6	96h EC50: = 169 mg/L (Desmodesmus subspicatus) 72h EC50: = 216 mg/L (Desmodesmus subspicatus)	96h LC50: 10600 - 13000 mg/L (Pimephales promelas) 96h LC50: > 1000 mg/L (Pimephales promelas) 96h LC50: 450 - 1000 mg/L (Lepomis macrochirus)		24h EC50: = 1386 mg/L
Piperazine 110-85-0		96h LC50: > 10000 mg/L (Lepomis macrochirus)	EC50 = 430 mg/L 30 min	96h EC50: = 6915 mg/L
1-(2-Aminoethyl) piperazine 140-31-8	72h EC50: = 495 mg/L (Pseudokirchneriella subcapitata)	96h LC50: >= 100 mg/L (Oncorhynchus mykiss) 96h LC50: > 1000 mg/L (Poecilia reticulata) 96h LC50: 1950 - 2460 mg/L (Pimephales promelas)	EC50 > 10000 mg/L 17 h	48h EC50: = 32 mg/L

Persistence and Degradability

No information available.

Bioaccumulation

Chemical name	Log Pow
p-tert-Butyl phenol 98-54-4	2.44
Triphenyl phosphite 101-02-0	4.98
Triethanolamine 102-71-6	-2.53
1-(2-Aminoethyl) piperazine 140-31-8	-1.48

Other adverse effects

No information available.

13. Disposal Considerations

Waste Treatment Methods

Disposal Methods	This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).
Contaminated packaging	Dispose of contents/containers in accordance with local regulations.
US EPA Waste Number	U188

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport information

DOT

Proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S.
Hazard class	8
Packing group	II
Description	UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (PROPYLENE GLYCOL DIAMINE, 2-AMINO-, DIETHER WITH PROPYLENE, PHENOL), 8, II
Emergency response guide number	153

TDG

UN number	UN2735
Proper shipping name	POLYAMINES, LIQUID, CORROSIVE, N.O.S.
Hazard class	8
Packing group	II
Description	UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S. (PROPYLENE GLYCOL DIAMINE, 2-AMINO-, DIETHER WITH PROPYLENE, TRIETHYLENE TETRAMINE), 8, II

MEX

UN-No	UN2735
Proper shipping name	POLYAMINES, LIQUID, CORROSIVE, N.O.S.
Hazard class	8
Packing group	II
Description	UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S. (PROPYLENE GLYCOL DIAMINE, 2-AMINO-, DIETHER WITH PROPYLENE, PHENOL), 8, II

ICAO

UN-No	UN2735
Proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S.
Hazard class	8
Packing group	III
Description	UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (PROPYLENE GLYCOL DIAMINE, 2-AMINO-, DIETHER WITH PROPYLENE, TRIETHYLENE TETRAMINE), 8, II

IATA

UN-No.	UN2735
Proper Shipping Name	AMINES, LIQUID, CORROSIVE, N.O.S.
Hazard Class	8
Packing Group	II
ERG Code	8L

Description UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (PROPYLENE GLYCOL DIAMINE, 2-AMINO-, DIETHER WITH PROPYLENE, TRIETHYLENE TETRAMINE), 8, II

IMDG/IMO

UN-No. 2735
Proper Shipping Name POLYAMINES, LIQUID, CORROSIVE, N.O.S.
Hazard Class 8
Packing Group II
EmS-No. F-A, S-B
Description UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S. (PROPYLENE GLYCOL DIAMINE, 2-AMINO-, DIETHER WITH PROPYLENE, TRIETHYLENE TETRAMINE), 8, II, MARINE POLLUTANT

RID

UN-No. UN2735
Proper Shipping Name POLYAMINES, LIQUID, CORROSIVE, N.O.S.
Hazard Class 8
Packing Group II
Classification code C7
Description UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S. (PROPYLENE GLYCOL DIAMINE, 2-AMINO-, DIETHER WITH PROPYLENE, TRIETHYLENE TETRAMINE), 8, II, ENVIRONMENTALLY HAZARDOUS

ADR/RID-Labels 8

ADR

UN-No. UN2735
Proper Shipping Name POLYAMINES, LIQUID, CORROSIVE, N.O.S.
Hazard Class 8
Packing Group II
Classification code C7
Tunnel restriction code (E)
Description UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S. (PROPYLENE GLYCOL DIAMINE, 2-AMINO-, DIETHER WITH PROPYLENE, TRIETHYLENE TETRAMINE), 8, II, (E), ENVIRONMENTALLY HAZARDOUS

ADN

UN-No UN2735
Proper shipping name POLYAMINES, LIQUID, CORROSIVE, N.O.S.
Hazard class 8
Packing group II
Classification Code C7
Special provisions 274
Description UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S. (PROPYLENE GLYCOL DIAMINE, 2-AMINO-, DIETHER WITH PROPYLENE, TRIETHYLENE TETRAMINE), 8, II, ENVIRONMENTALLY HAZARDOUS

Hazard Labels 8

Limited quantity 5 L

15. Regulatory Information

International Inventories

TSCA Complies
DSL All components are listed either on the DSL or NDSL
IECSC

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations**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 Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	NO
Chronic health hazard	NO
Fire hazard	NO
Sudden Release of Pressure Hazard	NO
Reactive hazard	NO

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
m-Xylene-.alpha., .alpha.`-diamine 1477-55-0	X	X	X		
Triethylene tetramine 112-24-3	X	X	X		
Triethanolamine 102-71-6	X	X	X		
Piperazine 110-85-0	X	X	X		X
1-(2-Aminoethyl) piperazine 140-31-8	X	X	X		

International regulations**Mexico****National Occupational Exposure Limits**

Component	Carcinogen Status	Exposure limits
m-Xylene-.alpha., .alpha.`-diamine 1477-55-0 (10 - 20%)		Mexico: Ceiling 0.1 mg/m ³

Mexico - Occupational Exposure Limits - Carcinogens

CANADA**WHMIS Hazard Class**

Not Determined

16. Other Information

NFPA	Health hazards 3	flammability 1	Instability 0	Physical and chemical hazards -
HMIS	Health hazards 3 *	flammability 1	Physical hazard 0	PERSONAL

PROTECTION X**Chronic Hazard Star Legend** * = Chronic Health Hazard

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 01-Feb-2019
Revision Date 10-Feb-2021
Revision note No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text



The supplier identified below generated this SDS using the UL SDS template. UL did not test, certify, or approve the substance described in this SDS, and all information in this SDS was provided by the supplier or was reproduced from publically available regulatory data sources. UL makes no representations or warranties regarding the completeness or accuracy of the information in this SDS and disclaims all liability in connection with the use of this information or the substance described in this SDS. The layout, appearance and format of this SDS is ©2014 UL LLC. All rights reserved.

End of Safety Data Sheet