

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 Only
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 Asia Pacific: +1 760 476 3960
Middle East/Africa: +1 760 476 3959 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 Toxic to aquatic life with long lasting effects May be corrosive to metals | |
|  | |
| 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 |
|--------------------------|---|

Hazardous Combustion Products

Carbon oxides.

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.

Other Information Do not get water inside containers.

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.

Methods for cleaning up Soak up with inert absorbent material. 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.

Incompatible Products Acids. Bases. Oxidizing agent. Halogens.

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 | TWA: 5 mg/m ³ | - | |

| | | | |
|------------------------|---|---|--|
| 102-71-6 | | | |
| 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.

Skin and body protection Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

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 | No information available | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks</u> | <u>Method</u> |
|--|--------------------|----------------|---------------|
| pH | No data available | | |
| Melting / freezing point | No data available | 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 | No data available | None known | |
| Vapor density | No data available | None known | |
| Specific Gravity | 1 | | |
| Water Solubility | Moderately 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 | No data available | 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

Acids. Bases. Oxidizing agent. Halogens.

Hazardous Decomposition Products

Carbon oxides.

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 affects 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 | = 2500 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) | - |

Information on toxicological effects

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 |
| Triethylene tetramine 112-24-3 | -1.4 |
| 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, III |
| 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, III |

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, III |

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, III |

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, III

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, III, 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, III, 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, III, (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, III, 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 0 | Instability 0 | Physical and Chemical Hazards - Personal Protection X |
| HMIS | Health Hazards 3 * | Flammability 0 | Physical Hazard 0 | |

Chronic Hazard Star Legend * = Chronic Health Hazard

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

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Revision Date 18-Mar-2019
Revision Note No information available

Disclaimer

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End of Safety Data Sheet