

1. IDENTIFICATION:

Product Name: Everchem DEA 99% LFG

Everchem Speciality Chemicals
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1400 N. Providence Road
Media, PA 19063

Phone: (484) 234-5030
Effective Date: 11/23/20

Emergency Phone: Chemtrec 1-800-424-9300 Account # 8079

2. HAZARDS IDENTIFICATION:

Label Elements



Signal Word: DANGER!

Hazardous Classifications:

Acute Toxicity, Oral – GHS Category 4
Eye Damage / Irritation – GHS Category 1
Skin Corrosion/Irritation – GHS Category 2
Specific Target Organ Toxicity (Repeated Exposure) – Category 2

Hazard Statements:

Harmful if swallowed.
Causes serious eye damage.
Causes skin irritation.
Causes damage to organs (liver, blood, kidneys) through prolonged or repeated exposure.

Precautionary Statement(s):

Wash thoroughly after handling. Wear eye protection / face protection / protective gloves / protective clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink, or smoke when using this product. If SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. If on SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: get medical attention.

SAFETY DATA SHEET

DEA 99% LFG

2. HAZARDS IDENTIFICATION (cont.):

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. Dispose of contents and container in accordance with all local, regional, national, and international regulations.

3. PRODUCT COMPOSITION:

Component	CAS #	% by wt.	OSHA PEL TWA	ACGIH TLV TWA
N,N-Diethanolamine	111-42-2	84-85%	2 mg/m ³	1 mg/m ³
Water	7732-18-5	15%	--	--
Triethanolamine	102-71-6	< 0.25%	5 mg/m ³	5 mg/m ³

4. FIRST AID:

INHALATION: If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If symptoms develop or persist, seek medical advice/attention.

SKIN CONTACT: Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

EYE CONTACT: Rinse eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do so. Protect unexposed eye. Continue rinsing. Seek immediate medical attention (preferably from an ophthalmologist).

INGESTION: If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

5. FIRE FIGHTING MEASURES:

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water spray, or alcohol resistant foam.

UNSUITABLE EXTINGUISHING MEDIA: Do not use water jet.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, nitrogen oxides.

SPECIAL PRECAUTIONS: Evacuate the area of all non-essential personnel. Use water spray or fog for cooling exposed containers and fire affected zone until fire is out and danger of reignition has passed. Move containers from fire area if it can be done without risk. Fight fire from a safe distance/protected location. Heat may build enough pressure to rupture closed containers, spreading fire and increasing risk of burns/injuries. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Always stay away from tanks engulfed in fire. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be

5. FIRE FIGHTING MEASURES (cont.):

extinguished by dilution with water. Do not use direct water stream. May spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Prevent fire-fighting water from entering environment. Notify environmental authorities if liquid runoff enters sewers or public waters.

PROTECTIVE EQUIPMENT: Use NIOSH/MSHA approved SCBA with a full face-piece operated in positive pressure mode and bunker gear.

6. ACCIDENTAL RELEASE MEASURES

Evacuate personnel to safe areas. Keep unauthorized personnel away from area of spill or leak. Stay upwind of spill/leak. Eliminate all sources of ignition. Ventilate area. Wear recommended personal protective equipment (see Section 8). Avoid contact with eyes, skin and clothing. Avoid breathing dust, mist, vapor, fume and spray. Do not walk through spilled material. Wash thoroughly after handling. Do not allow contact with soil, surface or ground water. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas. Prevent further leakage or spillage if safe to do so. Do not discharge into the environment. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained.

Small spills: Contain and collect spillage with non-combustible, absorbent material (e.g. sand, earth, vermiculite, diatomaceous earth). Do NOT use absorbent materials such as: Cellulose or sawdust. Place recovered product in appropriate container for future disposal.

Large spills: Contain spilled material if possible. Pump into suitable and properly labeled containers. Dispose of in accordance with all applicable regulations (see Section 13).

Additional Advice: Mark the contaminated area with signs and prevent access to unauthorized personnel.

7. HANDLING AND STORAGE

HANDLING: Wear recommended personal protective equipment (see section 8). Use only with adequate ventilation. Do not taste or swallow. Avoid contact with eyes, skin and clothing. Avoid breathing dust/ mist/ vapor/ spray. Do not eat, drink or smoke while handling this product. Wash hands, forearms and face thoroughly with soap and water after handling. Keep away from open flame, hot surfaces, ignition sources and incompatible materials (see Section 10). Keep containers tightly closed when not in use. Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines can be formed. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures, possibly resulting in spontaneous combustion.

STORAGE: Store in a dry, cool, fire resistant and well-ventilated place. Store out of direct sunlight. Store away from ignition sources and incompatible materials (see Section 10 for incompatibles). Keep containers tightly closed. Avoid moisture. Avoid freezing. DO NOT store in

7. HANDLING AND STORAGE (cont.)

containers made of aluminum, copper or copper alloys. Ensure that containers are properly labelled. This product is typically stored, loaded, and shipped in a liquid state.

Further information on storage conditions:

Storage stability temperature: 34 - 49 °C (93 - 120 °F)
Storage period: Plastic Drums - 24 Months
 Bulk – 6 months

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Component	CAS #	% by wt.	OSHA PEL	ACGIH TLV
			TWA	TWA
N,N-Diethanolamine	111-42-2	84-85%	2 mg/m ³	1 mg/m ³
Water	7732-18-5	15%	--	--
Triethanolamine	102-71-6	< 0.25%	5 mg/m ³	5 mg/m ³

ENGINEERING CONTROLS: Use local exhaust, mechanical ventilation or additional engineering controls to maintain airborne concentrations below any occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

HAND PROTECTION: Chemical-resistant, impervious gloves, complying with an approved standard should be worn at all times when handling chemical products. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

SKIN AND BODY PROTECTION: Wear impervious clothing.

EYE PROTECTION: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles; safety glasses with side-shields; full face shield.

RESPIRATORY PROTECTION: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Wear a properly fitted, air-purifying or air-fed respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SAFETY EQUIPMENT: Eyewash and deluge shower.

GENERAL HYGIENE MEASURES: Handle in accordance with good industrial hygiene and safety measures. Wash hands and face after handling chemical products. Wash hands before eating, drinking and smoking. Wash hands at the end of the workday. Appropriate techniques should be applied to remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PARAMETERS:

APPEARANCE/PHYSICAL STATE: Clear to yellow liquid

ODOR: Ammonia-like

ODOR THRESHOLD: Data not available.

pH: Data not available.

MELTING POINT: 21°F (-6°C)

BOILING POINT: 261°F (127°C)

FLASHPOINT: > 200°F (PMCC)

EVAPORATION RATE (n-butyl acetate=1): Not available.

LOWER FLAMMABLE LIMIT (LFL): No data available.

UPPER FLAMMABLE LIMIT (UFL): No data available.

VAPOR PRESSURE: 3.5 mm Hg @ 20°C (68°F)

VAPOR DENSITY (air=1): 2.1

RELATIVE DENSITY (77°F): 1.06 – 1.09

SOLUBILITY IN WATER: 100% soluble.

PARTITION COEFFICIENT: Not available.

AUTOIGNITION TEMPERATURE = Not available

DECOMPOSITION TEMPERATURE = No data available.

DYNAMIC VISCOSITY: Not available.

10. STABILITY AND REACTIVITY:

STABILITY: Stable under recommended storage and handling conditions .

POSSIBILITY OF HAZARDOUS REACTIONS: Reacts with sodium nitrite and other nitrosating agents causing the formation of nitrosamines (suspected carcinogens). Reacts violently with strong oxidants and strong acids. Attacks copper, zinc, aluminium and their alloys. Product may potentially react with various halogenated organic solvents, resulting in temperature and/or pressure increase. Heating above 60°C in the presence of aluminum can result in corrosion and generation of flammable hydrogen gas.

CONDITIONS TO AVOID: Extreme heat; Open flame; Ignition sources; Static electricity; Direct sunlight; Moisture/Humidity; Incompatible materials

INCOMPATIBLE MATERIALS: Strong Oxidizing agents; Strong acids; Metals such as Copper, Zinc, Aluminum and their Alloys; Aluminum, Aluminum oxides; Halogenated hydrocarbons; Sodium Nitrite and other nitrosating agents

HAZARDOUS DECOMPOSITION: Thermal decomposition may produce irritating and toxic fumes, including carbon monoxide, carbon dioxide and nitrogen oxides.

11. TOXICOLOGICAL INFORMATION:

Acute Toxicity

Assessment: Harmful if swallowed.

Acute Toxicity Data:

N,N-Diethanolamine		
Route	Specimen	Result:
Oral	Rat	LD50: 620 uL/kg
Dermal	Rabbit	LD50: 7640 uL/kg
Intraperitoneal	Mouse	LD50: 210 mg/kg

Triethanolamine		
Route	Specimen	Result:
Oral	Rat	LD50: 4920uL/kg
Dermal	Rabbit	LD50: > 20mL/kg
Intraperitoneal	Mouse	LD50: 1450 mg/kg

Skin Corrosion/Irritation

Assessment: Causes skin irritation.

Substance data:

N,N-Diethanolamine

Causes skin irritation.

Serious Eye damage/Irritation

Assessment: Causes serious eye damage.

Substance data:

N,N-Diethanolamine	Causes serious eye damage.
Triethanolamine	Causes serious eye irritation.

Skin Sensitization

Assessment: Based on available data, the classification criteria are not met.

Substance data: No additional information.

Respiratory Sensitization:

Assessment: Based on available data, the classification criteria are not met.

Substance data: No additional information.

Carcinogenicity:

Assessment: Based on available data, the classification criteria are not met.

Substance data:

N,N-Diethanolamine

There is sufficient evidence in experimental animals for the carcinogenicity of diethanolamine.

11. TOXICOLOGICAL INFORMATION (cont.):

IARC- International Agency for Research on Cancer:

This product contains the following ingredients (at greater than or equal to 0.1%) identified as probable, possible or confirmed human carcinogen by IARC.

N,N-Diethanolamine – Group 2B	Possibly carcinogenic to humans
Triethanolamine – Group 3	Unclassifiable as to carcinogenicity in humans.

NTP – National Toxicology Program

No component of this product present at levels greater than or equal to 0.1% is identified as a known or reasonably anticipated carcinogen by NTP.

OSHA – Occupational Safety and Health Administration

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity:

Assessment: Based on available data, the classification criteria are not met.

Substance data:

N,N-Diethanolamine	Animal studies demonstrate reduced postnatal growth and survival in a second species after gestational exposure to diethanolamine.
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Germ Cell Mutagenicity:

Assessment: Based on available data, the classification criteria are not met.

Substance data: No additional information.

Specific Target Organ Toxicity (Single Exposure)

Assessment: Based on available data, the classification criteria are not met.

Substance data: No additional information.

Specific Target Organ Toxicity (Repeated Exposure)

Assessment: Causes damage to organs (Liver, Blood, Kidneys through repeated or prolonged exposure.

Substance data:

amine	Causes damage to organs (liver, blood, kidneys) after repeated or prolonged exposure. Results from repeated exposure tests on diethanolamine in laboratory animals include anemia (rats) and effects on kidney (rats and mice) and liver (mice). Heart and nervous system effects were also observed in animals given exaggerated doses of diethanolamine.
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Aspiration Toxicity

Assessment: Based on available data, the classification criteria are not met.

Substance data: No additional information.

Information on Likely Routes of Exposure:

Inhalation; Ingestion; Skin Contact; Eye Contact

12. ECOLOGICAL INFORMATION:

N,N-Diethanolamine		
Fish:	Pimephales promelas	LC50: 1,460 mg/L (96 hr.) - Static test
Aquatic Invertebrates:	Ceriodaphnia dubia	EC50: 30.1 mg/L (48 hr.) - Immobilization
Algae:	Pseudokirchneriella sub-capitata	ErC50: 9.7 mg/L (96 hr.)
Micro-organisms:	Activated sludge	> 1,000 mg/L (30 min.)
Triethanolamine		
Fish:	Pimephales promelas	LC50: 1,800 – 11,800 mg/L (96 hr.)
Aquatic Invertebrates:	Daphnia magna	LC50: 739 – 2,038 mg/L (24 hr.)
Aquatic Plants:	alga Scenedesmus sp.	EC50: 216 - 750 mg/L (72 hr.) – growth rate inhibition
Micro-organisms:	Activated sludge	EC50: >1,000 mg/L (3hr.) – respiration inhibition

Aquatic Toxicity – Acute

Assessment: Based on available data, the classification criteria are not met.

Substance data:

Acute Aquatic Toxicity Data:

Aquatic Toxicity - Chronic

Assessment: Based on available data, the classification criteria are not met.

Substance data: No additional information.

12.2 Persistence and Degradability

Product data: Readily biodegradable.

Substance data:

N,N-Diethanolamine

Biodegradability Test: 97%% (28 days) – OECD biodegradation test (OECD 301A)

89 % (14 Days) OECD biodegradation test (OECD 302B)

92 % (3 hr.) OECD biodegradation test (OECD 303A)

12.3 Bioaccumulative Potential

Product data: Not expected to bioaccumulate.

Substance data:

N,N-Diethanolamine

Bioconcentration potential is low BCF < 100 or Log Pow < 3)

Partition coefficient: n-octanol/water (log Pow): -2.18

12.4 Mobility in Soil

Potential for mobility in soil is very high: (Koc between 0 and 50)

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHODS: It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory agencies. Dispose of in accordance with all applicable local, regional, state and federal regulations.

CONTAMINATED PACKAGING: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residue.

14. TRANSPORT INFORMATION:

D.O.T.: UN 3082, Environmentally hazardous substance, liquid, n.o.s. (Diethanolamine), Class 9, PG III, Reportable Quantity = 100 lbs.

IATA: Not regulated for transport

IMDG: Not regulated for transport

15. REGULATORY INFORMATION:

TSCA: All components are listed on "Active" inventory.

Clean Air Act (CAA) 112: Not listed.

REPORTABLE QUANTITIES (RQ): None

SARA TITLE III (Superfund Amendments and Reauthorization Act):

Section 302: No products were found.

Section 304: No products were found.

Section 313 (Toxic Chemicals): Diethanolamine, CAS# 111-42-2

CERCLA RQ (lbs.) Diethanolamine, CAS# 111-42-2, Reportable Quantity = 100 lbs

California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act):

WARNING: This product can expose you to Diethanolamine which is known to the state of California to cause cancer and Ethylene Glycol (ingested) which is known to the state of California to cause birth defects or other reproductive harm. For more information, visit www.P65Warnings.ca.gov.

Prop. 65 Ingredients:

Diethanolamine	CAS-No. 141-43-5 - Cancer
Ethylene glycol (ingested)	CAS No. 107-21-1 - Developmental

Massachusetts RTK:

Diethanolamine	CAS-No. 111-42-2
Triethanolamine	CAS-No. 102-71-6

Pennsylvania RTK:

Diethanolamine	CAS-No. 111-42-2
Triethanolamine	CAS-No. 102-71-6

16. OTHER INFORMATION:

DISCLAIMER OF LIABILITY

The information on the SDS was obtained from sources which we believe are reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE, OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Preparation Date: 11-23-20