Triethanolamine

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules and Regulation

Revision Date: 15-Aug-2025
Supersedes: 11-Jun-2025

1 PRODUCT & COMPANY IDENTIFICATION

Product Name: Triethanolamine
Synonyms: No data available
INCI Name: Triethanolamine
CAS Number: 102-71-6
Formula: No data available
Product Form: Liquid
Product Use: Cosmetic use

Distributor: MakingCosmetics Inc.
Address: 10800 231st Way NE
Redmond, WA 98053 (USA)
Phone / Fax: 425-292-9502 / 425-292-9601
Web: **www.makingcosmetics.com**

Emergency Telephone Number: 1-800-424-9300 (Chemtrec)

2 HAZARDS IDENTIFICATION

GHS Classification: Not classified.
GHS Labeling: No labeling applicable.
GHS Hazard Pictograms: None.
GHS Hazard Statements: None.
GHS Precautionary Statements: None.
Potential Health Hazards: Eyes: Not expected to be an irritant under normal conditions of use.
Inhalation: Not expected to be an irritant under normal conditions of use.
Skin: Not expected to be an irritant under normal conditions of use.
Ingestion: May cause nausea, vomiting, and diarrhea.

NFPA Ratings (704):

Health	1	Slight
Flammability	1	Slight
Reactivity	1	Slight
Specific Hazard	N/A	

3 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Weight %	GHS Classification
Triethanolamine	102-71-6	>99%	Not classified
Diethanolamine	111-42-2	≤0.5%	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT RE 2, H373

4 FIRST AID MEASURES

Eyes: Rinse eyes with water as a precaution. No special symptoms/effects under normal conditions of use.
Inhalation: Remove person to fresh air and keep comfortable for breathing. No special symptoms/effects under normal conditions of use.
Skin: Wash skin with plenty of water. No special symptoms/effects under normal conditions of use.
Ingestion: Do Not Induce Vomiting. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor if you feel unwell or are concerned. No special symptoms/effects under normal conditions of use.

5 FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Could burn but do not ignite readily. No direct explosion hazard. Use appropriate media (water spray, dry powder, foam, carbon dioxide) for surrounding environment and adjacent fire. Do not use a solid water stream as it may scatter and spread fire.

Special protective equipment & precautions for firefighters: Wear a positive pressure, self-contained breathing apparatus and full protective clothing, including eye protection and boots. Evacuate the area and fight fire from a safe distance or

	protected location. Contain water run-off if possible. Approach the fire from upwind to avoid hazardous vapors. Burning liquids may be extinguished by dilution with water. Water spray may be used to flush spills away from ignition sources. Use water spray to cool fire-exposed containers.
Flash Points:	354.2°F (179°C)
Specific hazards arising from the chemical:	Hazardous decomposition products include carbon dioxide and carbon monoxide. See also Stability and reactivity section.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment & emergency procedures:	Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate spillage area. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. Do not try to clean up the leak without proper protective equipment. See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions:	Avoid liquid release into sewers/public water/environment. Notify environmental authorities in case of leak.
Methods and material for containment and cleaning up:	Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Dispose of materials or solid residues at an authorized site. Stop leak, if possible, without risk. Dispose of absorbed material in accordance with the regulations.

7 HANDLING & STORAGE

Precautions for safe handling:	Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Not expected to present a significant hazard under anticipated conditions of normal use. See section 8 for recommendations on the use of personal protective equipment.
Conditions for safe storage, incl. any incompatibilities:	Keep in a cool, well-ventilated place away from heat, sparks, open flames and other ignition sources. Store always product in container of same material as original container. Store away from incompatible materials (see section 10 for incompatibilities).

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	Exposure Limits	Basis	Entity
Triethanolamine	5 mg/m3	TLV (Eye & Skin irritant)	ACGIH 2021
Diethanolamine	1 mg/m3 (inhalable fraction & vapor)	TLV (Liver & kidney damge)	ACGIH 2022
	15 mg/m³ / 3 ppm	TWA-REL	NIOSH

TWA: Time Weighted Average over 8 hours of work.
TLV: Threshold Limit Value over 8 hours of work.
REL: Recommended Exposure Limit
PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.
IDLH: Immediately Dangerous to Life or Health
WEEL: Workplace Environmental Exposure Levels
CEIL: Ceiling

Personal Protection:

Eyes:	Wear safety glasses.
Inhalation:	In case of insufficient ventilation, wear suitable respiratory equipment.
Body:	Wear protective gloves and full body protective clothing.
Other:	Use good personal hygiene practices. Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, viscous liquid	**Vapor Pressure at 20°C:**	<0.01 mmHg
Odor:	Slight ammonia	**Vapor Density:**	No data available
Odor Threshold:	No data available	**Evaporation Rate:**	No data available
Color:	Colorless	**Flammability:**	No data available
Molecular Weight:	No data available	**Upper/lower Explosive Limit:**	No data available

pH:	10.5 (10% aqueous solution)	**Flash Point (PMCC):**	354.2°F (179°C)
Boiling Point:	644°F (340°C)	**Specific Gravity at 20°C:**	No data available
Melting Point:	Not applicable	**Water Solubility:**	Completely soluble
Relative Density at 20°C:	1.12	**Auto-Ignition Temperature:**	662°F (350°C)
Partition Coefficient: n-octanol/water:	-2.53	**Decomposition Temperature:**	392°F (200°C)
Dynamic Viscosity at 25°C:	~601 mPa.s	**Explosive Properties:**	None reported
Oxidizing Properties:	None reported	**Metal Corrosion:**	No data available

10 STABILITY AND REACTIVITY

Reactivity:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical Stability:	Stable under normal conditions.
Hazardous Polymerization:	No data available.
Conditions to Avoid:	Store in a dry, well-ventilated place away from sources of heat, ignition and direct sunlight.
Incompatible Materials:	Acids. Aluminum. Strong oxidizing agents. Halogenated hydrocarbons. Alkali metals.
Hazardous Decomposition Products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possible Hazardous Reactions:	No dangerous reactions known under normal conditions of use.

11 TOXICOLOGICAL INFORMATION

Acute Toxicity:	No data available.
Skin:	No symptoms/effects under normal conditions of use. (Rabbit) Component: Triethanolamine; LD50: >2,000 mg/kg. (Rabbit) Component: Diethanolamine; LD50: 11.9 ml/kg.
Eyes:	Not classified under serious eye damage/irritation. pH: 10.5 (10% aq soln).
Inhalation:	No symptoms/effects under normal conditions of use.
Ingestion:	No symptoms/effects under normal conditions of use. (Rat) Component: Triethanolamine; LD50: 4,190 mg/kg. (Rat) Component: Diethanolamine; LD50: 780 mg/kg.
Carcinogenicity:	Not classified. (Rat, chronic, oral, male, 2 years) Component: Triethanolamine; NOAEL; 63 mg/kg body weight; Guideline: OECD Guideline 451 (Carcinogenicity Studies). IARC group: 3 - Not classifiable. (Rat/Rabbit) Component: Diethanolamine; LOAEL: 32 mg/kg body weight; Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study).
Teratogenicity:	No data available.
Germ Cell Mutagenicity:	Not classified.
Specific Target Organ Toxicity:	Repeated Exposure: Component: Diethanolamine; May cause damage to organs through prolonged or repeated exposure.
Reproductive Toxicity:	No data available.
Skin Corrosion/Irritation:	Not classified. pH: 10.5 (10% aq soln). Component: Triethanolamine; pH: 10.5 (conc: 0.1 N (aqueous solution). Component: Diethanolamine; pH: 11 Source: HSDB.
Viscosity, Kinematic:	Component: Triethanolamine; 830.2 mm^2/s (20 °C, Equivalent or similar to OECD 114). Component: Diethanolamine; 358.295 mm^2/s.
Respiratory/Skin Sensitization:	Not classified.
Aspiration Hazard:	Not classified.

12 ECOLOGICAL INFORMATION

Ecotoxicity:	The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Aquatic Vertebrate:	No data available.
Aquatic Invertebrate:	No data available.
Terrestrial:	No data available.
Persistence and Degradability:	Component: Triethanolamine; Rapidly degradable. Biodegradable in the soil, No inhibition of nitrification, readily biodegradable in water. Component: Diethanolamine; Biodegradable in the soil, readily biodegradable in water.
Bioaccumulative Potential:	Component: Triethanolamine; Partition coefficient n-octanol/water (Log Pow) -2.53.

	Component: Triethanolamine; Low potential for bioaccumulation. Component: Diethanolamine; Not Bioaccumulative.
Mobility in Soil:	Component: Triethanolamine; Highly mobile in soil. Component: Diethanolamine; Highly mobile in soil.
PBT and vPvB Assessment:	No data available.
Other Adverse Effects:	Not classified as an Ozone hazard or Fluorinated greenhouse gases.

13 DISPOSAL CONSIDERATIONS

Waste Residues:	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies, if necessary, before disposing of waste product. Regulations may vary in different locations.
Product Containers:	Do not re-use empty containers. Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies, if necessary, before disposing of waste product container.

The information in section 13 is for the product as shipped. Use and/or alterations to the product may change the characteristics of the material and alter the waste classification and proper disposal methods

14 TRANSPORT INFORMATION

DOT (Dept. of Transportation, USA):	Not regulated for transport.
TDG (Transportation of Dangerous Goods, Canada):	Not regulated for transport.
IMDG (International Maritime Dangerous Goods):	Not regulated for transport.
IATA (International Air Transport Association):	Not regulated for transport.
ICAO (International Civil Aviation Organization):	No data available.

15 REGULATORY INFORMATION

TSCA Inventory:	All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.
SARA Title III Section 313:	Diethanolamine (CAS-No. 111-42-2) ≤ 0.5%.
CERCLA RQ:	Diethanolamine (100 lb) Listed on EPA Hazardous Air Pollutant (HAPS).
California Prop. 65:	This product can expose you to Diethanolamine, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov
NJ Right to Know:	Triethanolamine (102-71-6), Diethanolamine (111-42-2).
PA Right to Know:	Triethanolamine (102-71-6), Diethanolamine (111-42-2).
MA Right to Know:	Triethanolamine (102-71-6), Diethanolamine (111-42-2).

16 OTHER INFORMATION

Revision Date:	15-Aug-2025
Compliance:	This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200
Disclaimer:	This 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 other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitableness & completeness of such information for his own particular use.