



Univar USA Inc Material Safety Data Sheet

MSDS No:

Version No:

Order No:

Univar USA Inc., 17425 NE Union Hill Rd., Redmond WA 98052
(425) 889 3400

Emergency Assistance

For emergency assistance involving chemicals call
Chemtrec - (800) 424-9300



Univar
3075 Highland Pkwy STE 200
Downers Grove, IL 60515
425-889-3400

SAFETY DATA SHEET

1. Identification

Product identifier: TRIETHANOLAMINE 85% (NON-REG)

Other means of identification

Synonyms: TEA

SDS number: 000100000173

Recommended use and restriction on use

Recommended use: Not available.

Restrictions on use: Not known.

Emergency telephone number:For emergency assistance Involving chemicals

call CHEMTREC day or night at: 1-800-424-9300. CHEMTREC INTERNATIONAL Tel# 703-527-3887

2. Hazard(s) identification

Hazard classification

Health hazards

Carcinogenicity

Category 2

Label elements

Hazard symbol



Signal word

Warning

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Hazard statement	May be harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes damage to organs through prolonged or repeated exposure. Suspected of causing cancer.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
Response	If exposed or concerned: Get medical advice/attention.
Storage	Store in a closed container. Keep container tightly closed. Store in a well-ventilated place. Store in a dry place. Store locked up.
Disposal	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification	None.

3. Composition/information on ingredients

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Substances

Chemical identity	Common name and synonyms	CAS number	Content in percent (%)*
Triethanolamine		102-71-6	85%
Diethanolamine		111-42-2	15%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments: The components are not hazardous or are below required disclosure limits.

4. First-aid measures

Ingestion: Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Perform artificial respiration if breathing has stopped.

Skin contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Eye contact: If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: No data available.

5. Fire-fighting measures

General fire hazards: Wear self-contained breathing apparatus and protective clothing.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use: Alcohol-resistant foam, powder, carbon dioxide, water spray. Water in large amounts.

Unsuitable extinguishing media: No data available.

Specific hazards arising from the chemical: Fire or excessive heat may result in rupture of container due to release of significant amounts of gases.

Special protective equipment and precautions for firefighters

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Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Use water spray to keep fire-exposed containers cool. Avoid water in straight hose stream; will scatter and spread fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.

Methods and material for containment and cleaning up: Absorb spillage with non-combustible, absorbent material. Dike for later disposal.

Environmental precautions: Prevent spillage entering a watercourse or sewer, contaminating soil or vegetation. If this is not possible notify police and appropriate authorities immediately.

7. Handling and storage

Precautions for safe handling: Flammable/combustible - Keep away from oxidizers, heat and flames. Avoid contact with skin and eyes. Avoid breathing mists or vapors. Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities: Store in a dry place.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Chemical identity	Type	Exposure Limit values	Source
Triethanolamine	TWA	5 mg/m ³	US. ACGIH Threshold Limit Values (03 2013)
	ST ESL	50 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL	5 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	TWA PEL	5 mg/m ³	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)

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Diethanolamine - Inhalable fraction and vapor.	TWA	1 mg/m3	US. ACGIH Threshold Limit Values (03 2013)
Diethanolamine	REL	3 ppm 15 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	3 ppm 15 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	3 ppm 15 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	ST ESL	10 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL	1 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	ST ESL	2 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL	0.2 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	TWA PEL	0.46 ppm 2 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)

Appropriate engineering controls Adequate ventilation should be provided so that exposure limits are not exceeded.

Individual protection measures, such as personal protective equipment

- General information:** No data available.
- Eye/face protection:** Wear safety glasses with side shields (or goggles).
- Skin protection**
 - Hand protection:** Chemical resistant gloves.
 - Other:** No data available.
- Respiratory protection:** In case of inadequate ventilation, use respiratory protection.
- Hygiene measures:** Observe good industrial hygiene practices.

9. Physical and chemical properties

Physical state: Liquid
Form: Liquid
Color: Colorless

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Odor:	No data available.
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	15 °C
Initial boiling point and boiling range:	310 °C
Flash Point:	194 °C
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical stability:	No data available.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	No data available.
Incompatible materials:	No data available.
Hazardous decomposition products:	No data available.

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11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion: No data available.
Inhalation: No data available.
Skin contact: No data available.
Eye contact: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: ATEmix (): 10,666.666667 mg/kg

Dermal

Product: ATEmix (): 2,000 mg/kg

Inhalation

Product: No data available.

Specified substance(s):

Diethanolamine LC 0 (Rat,): 0.2 mg/l (, No) 2 (reliable with restrictions)

Repeated dose toxicity

Product: No data available.

Skin corrosion/irritation

Product: No data available.

Serious eye damage/eye irritation

Product: No data available.

Respiratory or skin sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

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IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Diethanolamine Overall evaluation: 2B. Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ cell mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific target organ toxicity - single exposure

Product: No data available.

Specific target organ toxicity - repeated exposure

Product: No data available.

Aspiration hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Triethanolamine LC 50 (Carp (Leuciscus idus melanotus), 48 h): > 10,000 mg/l Mortality

Diethanolamine LC 50 (Western mosquitofish (Gambusia affinis), 48 h): 1,550 mg/l Mortality
LC 50 (Fathead minnow (Pimephales promelas), 96 h): 1,200 - 1,580 mg/l
Mortality LC 50 (Western mosquitofish (Gambusia affinis), 96 h): 1,400 mg/l
Mortality LC 50 (Fathead minnow (Pimephales promelas), 96 h): 1,360 -
1,630 mg/l Mortality LC 50 (Fathead minnow (Pimephales promelas), 96 h):
1,300 - 1,990 mg/l Mortality

Aquatic invertebrates

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Product: No data available.
Specified substance(s):
Triethanolamine EC 50 (Water flea (Ceriodaphnia dubia), 48 h): 565.2 - 658.3 mg/l Intoxication
Diethanolamine LC 50 (Water flea (Daphnia magna), 48 h): 44 - 68 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and degradability

Biodegradation

Product: No data available.

BOD/COD ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration factor (BCF)

Product: No data available.

Partition coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Triethanolamine Log Kow: -1.00

Diethanolamine Log Kow: -1.43

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

2,2',2''-Nitrilotriethanol No data available.

2,2'-Iminodiethanol No data available.

13. Disposal considerations

Disposal instructions: No data available.

Contaminated packaging: No data available.

14. Transport information

Not regulated for transportation in containers less than RQ amount.

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15. Regulatory information

US federal regulations US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Diethanolamine Reportable quantity: 100 lbs.

Superfund amendments and reauthorization act of 1986 (SARA)

Hazard categories

Not listed.

SARA 302 Extremely hazardous substance

None present or none present in regulated quantities.

SARA 304 Emergency release notification

Chemical identity	RQ
Diethanolamine	100 lbs.

SARA 311/312 Hazardous chemical

Chemical identity	Threshold Planning Quantity
Triethanolamine	500 lbs
Diethanolamine	500 lbs

SARA 313 (TRI reporting)

Chemical identity	Reporting threshold for other users	Reporting threshold for manufacturing and processing
Diethanolamine	10000 lbs	25000 lbs.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US state regulations

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Diethanolamine Carcinogenic.

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US. New Jersey Worker and Community Right-to-Know Act

Triethanolamine Listed
Diethanolamine Listed

US. Massachusetts RTK - Substance List

Triethanolamine Listed
Diethanolamine Listed

US. Pennsylvania RTK - Hazardous Substances

Triethanolamine Listed
Diethanolamine Listed

US. Rhode Island RTK

Diethanolamine Listed

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Inventory Status: Australia AICS:	Not in compliance with the inventory.
Canada DSL Inventory List:	Not in compliance with the inventory.
EU EINECS List:	Not in compliance with the inventory.
EU ELINCS List:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
EU No Longer Polymers List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	Not in compliance with the inventory.
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	Not in compliance with the inventory.
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

16. Other information, including date of preparation or last revision

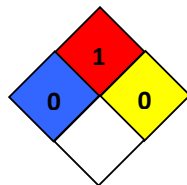
HMIS Hazard ID

Health	*	1
Flammability	1	
Physical hazards	1	
PERSONAL PROTECTION		K

K - Hood, Gloves, Protective Suit & Boots

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; *Chronic health effect

NFPA Hazard ID



	Flammability
	Health
	Reactivity
	Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

Issue date: 05/26/2015
Revision date: No data available.
Version #: 1.2
Further information: No data available.

Version: 1.2
Revision date: 05/26/2015



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For Additional Information contact MSDS Coordinator during business hours, Pacific time: (425) 889-3400

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