

SAFETY DATA SHEET

according to Regulation (EU) No. 1907/2006

Version 3.0 Revision Date 12.07.2007

Print Date 29.07.2007

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : **Ethanolamine**

Product Number : 110167
Brand : Sigma-Aldrich

Company : Sigma-Aldrich Pte Ltd
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2. HAZARDS IDENTIFICATION

Risk advice to man and the environment

Harmful by inhalation, in contact with skin and if swallowed. Causes burns.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 2-Aminoethanol
2-Aminoethyl alcohol
Monoethanolamine

Formula : C₂H₇NO
Molecular Weight : 61,08 g/mol

CAS-No.	EC-No.	Index-No.	Classification	Concentration [%]
Ethanolamine				
141-43-5	205-483-3	603-030-00-8	C, R20/21/22- R34	-

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Do not let product enter drains.

Methods for cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

hygroscopic

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Personal protective equipment****Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

Eye protection

Safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid, clear, viscous
Colour	colourless

Safety data

pH	no data available
Melting point	10 °C
Boiling point	69 - 70 °C at 13 hPa 170 °C at 1.013 hPa
Flash point	93 °C - closed cup
Ignition temperature	780 °C
Lower explosion limit	2,5 %(V)
Upper explosion limit	17 %(V)
Vapour pressure	0,3 hPa at 20 °C
Density	1,015 g/cm ³
Water solubility	no data available
Vapour density	2,11 - (Air = 1.0)

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions. Absorbs carbon dioxide (CO₂) from air.

Conditions to avoid

Exposure to moisture.

Materials to avoid

Iron, Oxidizing agents, Copper

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.

Carbon oxides, nitrogen oxides (NO_x)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat - 1.720 mg/kg

Inhalation: Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

LD50 Dermal - rabbit - 1.015 mg/kg

Irritation and corrosion

Eyes - rabbit - Severe eye irritation

Sensitisation

no data available

Chronic exposure

no data available

Potential Health Effects

Inhalation	Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	Harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.
Ingestion	Harmful if swallowed. Causes burns.
Target Organs	Liver, Heart, Lungs,

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 227 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates.	EC50 - Daphnia magna (Water flea) - 65 mg/l - 48 h
Toxicity to algae	EC50 - Scenedesmus subspicatus - 15 mg/l - 72 h

Further information on ecology

no data available

13. DISPOSAL CONSIDERATIONS

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

UN-Number: 2491 Class: 8 Packing group: III
Proper shipping name: ETHANOLAMINE

IMDG

UN-Number: 2491 Class: 8 Packing group: III EMS-No: F-A, S-B
Proper shipping name: ETHANOLAMINE
Marine pollutant: No

IATA

UN-Number: 2491 Class: 8 Packing group: III
Proper shipping name: Ethanolamine

15. REGULATORY INFORMATION

Labelling according to EC Directives

EC Label

Hazard symbols

C Corrosive

R-phrases)

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R34

Causes burns.

S-phrase(s)

S26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39

Wear suitable protective clothing, gloves and eye/face protection.

S45

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16. OTHER INFORMATION

Further information

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