



Material Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

ROJETECHNOLOGIES

www.rojetechnologies.co

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SECTION 1: *Identification of the Substance/Mixture and of the Company/Undertaking*

1.1 Product identifier :

Substance name : 2-mercaptoethanol

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended restrictions on use : For professional users only.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier : ROJETechnologies

Street address / P.O. Box : ROJE street, 69th alley, Foroudgah blvd, Sanaat square, 8917357485,
Yazd, Iran

Country ID / Postcode / Place : Iran

Telephone number : +98 35 3723 7122

TeleFax : +98 35 3723 7122

E-Mail : safety@rojetechnologies.co

National contact: ROJETechnologies

1.4 Emergency Telephone Number

Opening Hours: 8-15 Sa to Wed and 8-13:00 Thurs

Language Of The Phone Service: English/ Persian

Only Available During Office Hours.

SECTION 2: *Hazards Identification*

2.1 Classification of the substance or mixture

2.1.1 classification according to regulation (EC) No 1272/2008 (CLP)

Classified as non-hazardous according to the criteria of Worksafe Australia.

Flammable liquids Category 4

Acute oral toxicity Category 3

Acute dermal toxicity Category 2

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Acute Inhalation Toxicity – Vapors Category 3
 Skin Corrosion/irritation Category 2
 Serious Eye Damage/Eye Irritation Category 1
 Specific target organ toxicity - (repeated exposure) Category 2

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard pictograms:



Signal word:

Danger

Hazard statements:

Not applicable

Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not get in eyes, on skin, or on clothing
 Wear protective gloves/protective clothing/eye protection/face protection
 Use only outdoors or in a well-ventilated area
 Contaminated work clothing should not be allowed out of the workplace
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Response

Get medical attention/advice if you feel unwell

Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

2.1.2 Carcinogenicity:

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IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

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

OSHA

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

NTP

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

2.3 Other hazards

Not applicable

SECTION 3: *Composition/Information on Ingredients*

3.1 Substances

Substances name:	No data available
INDEX No.:	No data available
EC NO.:	No data available
REACH No.:	No data available
CAS No.:	No data available
Purity:	No data available
Synonymes:	No data available
Stabilisers:	No data available
Hazard impurities:	No data available

3.2 Mixtures

Description of the mixture:	No data available
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Hazardous ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health.

SECTION 4: *First Aid Measures*

4.1 Description of first aid measures

- General notes: Move out of dangerous area. Show this material safety data sheet to the doctor in attendance.
- following inhalation: If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.
- following skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
- following eye contact: Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- following ingestion: If accidentally swallowed obtain immediate medical attention. Rinse mouth with water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Not applicable

Effects: Not applicable

4.3 Indication of any immediate medical attention and special treatment needed

Notes for doctor: No information available.

Special treatment: No information available.

SECTION 5: *Fire-Fighting Measures*

5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing : No information available.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.3 Advice for fire-fighters

Special protective equipment for firefighters: Standard procedure for chemical fires.

SECTION 6: *Accidental Release Measures*

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment: Use personal protective equipment.
 Ensure adequate ventilation.
 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

Emergency procedures: Evacuate the danger area or consult an expert if needed.

6.1.2 For emergency responders

Personal protective equipment: Use suitable fabric for personal protective clothing.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional ecological information. Avoid release to the environment. Collect spillage.

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6.3 Methods and materials for containment and cleaning up

6.3.1 For containment: acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

6.3.2 For cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.3.3 Other information: See section 8 for more information.

SECTION 7: *Handling and Storage*

7.1 Precautions for safe handling

Advice on safe handling: Use personal protective equipment as required. No special handling advices are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions: Keep container tightly closed in a dry and well-ventilated place.

SECTION 8: *Exposure Controls/Personal Protection*

8.1 Control parameters Contains no substances with occupational exposure limit values.

8.2 Personal protection equipment :

8.2.2.1 Eye and face protection : Safety glasses Wear face-shield and protective suit for abnormal processing problems. Ensure that eyewash stations and safety showers are close to the workstation location.

8.2.2.2 Respiratory protection : In the case of vapor formation use a respirator with an approved filter.

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8.2.2.3 Skin protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place. Footwear protecting against chemicals

8.2.2.4 Hand protection : The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

8.2.2.5 Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

8.2.2.6 Respiratory protection : In the case of vapor formation use a respirator with an approved filter.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

a) Appearance:	liquid
b) Odour:	Stench
c) Odour threshold:	No data available
d) pH:	5.2 (0.1M)
e) Melting point / freezing point:	-100 °C / -148 °F
f) Initial boiling point and boiling range:	No data available
g) Flash point:	73 °C / 163.4 °F
h) Evaporation rate:	No data available
j) Upper / lower flammability or explosive limits	2.7 vol %/1.1 vol %

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k) Vapour pressure	1 mmHg @ 20 °C
l) Vapour density	2.69
m) Relative density	No data available
n) Solubility(ies)	soluble
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	295 °C / 563 °F
q) Decomposition temperature	> 157°C
r) Viscosity	3.43 cP at 20 °C
s) Explosive properties	No data available
t) oxidizing properties	No data available

9.2 Other information

SECTION 10: Stability and Reactivity

10.1 Reactivity:	None known.
10.2 Chemical stability:	Stable under normal conditions.
10.3 Possibility of hazardous reactions:	Hazardous reaction has not been reported.
10.4 Conditions to avoid:	Incompatible products. Heat, flames and sparks. Excess heat. Exposure to moist air or water. Keep away from open flames, hot surfaces and sources of ignition.
10.5 Incompatible materials:	Oxidizing agents, Strong acids, Metals, Heavy metal salts
10.6 Hazardous decomposition products:	No data available

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

11.1.1 Acute toxicity:

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Method:	No data available
Species:	No data available
Routes of exposure:	No data available
Effective doses:	No data available
Exposure time:	No data available
Results:	No data available

11.1.2 Skin corrosion/irritation:

Method:	No data available
Species:	No data available
Routes of exposure:	No data available
Effective doses:	No data available
Exposure time:	No data available
Results:	No data available

11.1.3 Serious eye damage/irritation:

Method:	No data available
Species:	No data available
Routes of exposure:	No data available
Effective doses:	No data available
Exposure time:	No data available
Results:	No data available

11.1.4 Respiratory or skin sensitization:

Method:	No data available
Species:	No data available
Routes of exposure:	No data available
Effective doses:	No data available
Exposure time:	No data available

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Results: No data available

11.1.5 Germ cell mutagenicity:

Method: No data available

Species: No data available

Routes of exposure: No data available

Effective doses: No data available

Exposure time: No data available

Results: No data available

11.1.6 Carcinogenicity:

Method: No data available

Species: No data available

Routes of exposure: No data available

Effective doses: No data available

Exposure time: No data available

Results: No data available

11.1.7 Reproductive toxicity:

Method: No data available

Species: No data available

Routes of exposure: No data available

Effective doses: No data available

Exposure time: No data available

Results: No data available

11.1.8 Summary of evaluation of the CMR properties:

Method: No data available

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Species:	No data available
Routes of exposure:	No data available
Effective doses:	No data available
Exposure time:	No data available
Results:	No data available

11.1.9 STOT-single exposure:

Method:	No data available
Species:	No data available
Routes of exposure:	No data available
Effective doses:	No data available
Exposure time:	No data available
Results:	No data available

11.1.10 STOT-repeated exposure:

Method:	No data available
Species:	No data available
Routes of exposure:	No data available
Effective doses:	No data available
Exposure time:	No data available
Results:	No data available

11.1.10 Aspiration hazard:

Method:	No data available
Species:	No data available
Routes of exposure:	No data available
Effective doses:	No data available
Exposure time:	No data available
Results:	No data available

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SECTION 12: Ecological Information

12.1 Toxicity

Acute (short-term) toxicity

Fish: No data available

Crustatacea: No data available

Algae/aquatic plants: No data available

Other organisms: No data available

Chronic (long-term) toxicity

Fish: No data available

Crustatacea: No data available

Algae/aquatic plants: No data available

Other organisms: No data available

Ingredients: No data available

maleic acid : No data available

Toxicity to fish : LC50: 46 - 100 mg/L, 96h

Toxicity to daphnia and other aquatic

invertebrates : No data available

Toxicity to algae :

EC50: = 12 mg/L, 72h

12.2 Persistence and degradability

Abiotic Degradation:

Physical- and photo-chemical elimination

Biodegradation: No data available

Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

12.3 Bioaccumulative potential

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Partition coefficient

n-octanol/water (log kow): No data available

Bioconcentration factor (BCF): No data available

12.4 Mobility in soil

Known or predicted distribution to environmental compartments: No data available

Surface tension: No data available

Adsorption/Desorption: No data available

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects No data available

12.7 Additional information No data available

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Disposal methods Waste from residues : Send to a licensed waste management company.
 Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport Information

14.1. UNRTDG

Not regulated as a dangerous good

14.2. IATA-DGR

UN-No UN2966

Proper Shipping Name THIOGLYCOL

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Hazard Class 6.1**Packing Group** II**14.3. IMDG-Code**

Not regulated as a dangerous good

14.4. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

14.5. Domestic regulation

49 CFR

Not regulated as a dangerous good

14.6. Special precautions for user :

Remarks :

Not classified as dangerous in the
meaning of transport regulations.

SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

TSCA list : No data available

OSHA Hazards : No data available

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity: No data available

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards :

Acute Health Hazard Yes

Chronic Health Hazard Yes

Fire Hazard Yes

Sudden Release of Pressure Hazard No

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Reactive Hazard

No

SARA 302 :

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 :

Not applicable

US State Regulations

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

15.2 Chemical safety Assesment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other Information

(i) Indication of changes: No information available

(ii) Abbreviations and acronyms: No information available

(iii) Key literature references and sources for data: No information available

(iv) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]: No information available

(v) Relevant H-statements (number and full text): No information available

(vi) Training advice: No information available

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(vii) Further information:

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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 process, unless specified in the text.