

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 2-MERCAPTOETHANOL

CAS Number: 60-24-2

1. IDENTIFICATION:

Product Code : 92441, 92626

Company Name : ADVENT CHEMBIO PRIVATE LIMITED

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2. HAZARDS IDENTIFICATION:

Hazard classification

Health hazards

Acute toxicity : Category 3

Acute toxicity : Category 3

Acute toxicity : Category 2

Skin corrosion : Category 2

Serious eye damage : Category 1

Skin sensitisation : Sub-category 1A

Reproductive toxicity : Category 2

Specific target organ toxicity - repeated exposure : Category 2

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 2

Labels elements

Hazard symbol



Signal word

: Danger

Hazard statement

Toxic if swallowed or if inhaled.
Fatal in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Suspected of damaging fertility.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 2-MERCAPTOETHANOL

CAS Number: 60-24-2

May cause damage to organs (Liver, Heart) through prolonged or repeated exposure if swallowed.
 Very toxic to aquatic life with long lasting effects.

Precautionary statement

- Prevention** : Obtain special instructions before use.
 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.
 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
 Keep container tightly closed. Ground/ bond container and receiving equipment.
 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 Use only non-sparking tools. Take precautionary measures against static discharge.
- Response** : IF exposed or concerned: Get medical advice/ attention.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- Storage** : Store in a dry & well-ventilated place. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- 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** : Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

Ingredient	CAS Number	Percent	Hazardous
2-Mercaptoethanol	60-24-2	NLT 95.0%	Yes

4. FIRST AID MEASURES:

- General information** : Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
 Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen.
- Inhalation** : Get medical attention if symptoms persist.
- Skin contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
- Most important symptoms/effects, acute** : Toxic if inhaled. Irritating to eyes, respiratory system and skin.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 2-MERCAPTOETHANOL

CAS Number: 60-24-2

and delayed

Indication of immediate medical attention and special treatment needed : Symptoms may be delayed. Treat symptomatically.

5. FIRE FIGHTING MEASURES:

General information : No data available

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam, dry powder or carbon dioxide.

Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

Special protective equipment and precautions for firefighters

Special firefighting procedures : Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Special protective equipment for fire-fighters : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid breathing mists or vapors. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up : Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Take precautionary measures against static discharges. Stop leak if possible without any risk. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

Environmental precautions : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE:

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/ face protection. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Use only with adequate ventilation. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities : Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.



MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 2-MERCAPTOETHANOL

CAS Number: 60-24-2

8. EXPOSURE CONTROLS PERSONAL PROTECTION:**Control parameters****Appropriate engineering**

controls : No data available

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/face protection : Wear safety glasses with side shields (or goggles).

Hand protection : Chemical resistant gloves.

Other : Wear suitable protective clothing.

Respiratory protection : In case of inadequate ventilation use suitable respirator. Chemical respirator with organic vapor cartridge.

Hygiene measures : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance : Colorless to pale yellow liquid.

Odor : No data available

Solubility : No data available

Formula : C₂H₆OS

Molecular Weight : 78.13 g/mol

Specific Gravity : 1.114 g/cm³ at 25 °C - lit.

pH : 4.5 – 6.0 at 500 g/l at 20 °C

% Volatiles by volume @ 21C (70F) : No data available

Boiling Point : 155.8 °C at 1.013.3 hPa

Melting Point : < -50 °C

Flash Point : 74 °C - closed cup

Vapor Density (Air=1) : No data available

Vapor Pressure (mm Hg) : No data available

Evaporation Rate (BuAc=1) : No data available

MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: 2-MERCAPTOETHANOL

CAS Number: 60-24-2

10. STABILITY AND REACTIVITY:

Reactivity	:	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.
Chemical stability	:	Material is stable under ambient conditions..
Possibility of hazardous reactions	:	Violent reactions possible with: Strong oxidizing agents A risk of explosion and/or of toxic gas formation exists with the following substances: Acids.
Conditions to avoid	:	Heating.
Incompatible materials	:	No data available
Hazardous decomposition products	:	In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION:**Information on toxicological effects****Acute toxicity (list all possible routes of exposure)**

Inhalation Product	:	LD50 Oral - Mouse - 190 mg/kg Remarks: (RTECS) Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract. Acute toxicity estimate Oral - 190 mg/kg (ATE value derived from LD50/LC50 value) LC50 Inhalation - Rat - male - 4 h - 2,05 mg/l - vapor Remarks: (ECHA) Symptoms: Possible damages:, mucosal irritations, Cough, Shortness of breath Acute toxicity estimate Inhalation - 2,05 mg/l – vapor (ATE value derived from LD50/LC50 value) LD50 Dermal - Rabbit - male and female - 112 - 224 mg/kg Remarks: (ECHA) Acute toxicity estimate Dermal - 50 mg/kg (ATE value derived from LD50/LC50 value)
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	Skin - Rabbit Result: Irritations (OECD Test Guideline 404)
Serious eye damage/eye irritation Product	:	Eyes - Rabbit Result: Severe irritations (Draize Test) Remarks: (External MSDS) Remarks: Risk of corneal clouding.
Respiratory or skin sensitization Product	:	Maximization Test - Guinea pig Result: positive (OECD Test Guideline 406)
Carcinogenicity Product	:	No data available
IARC Monographs on the Evaluation of Carcinogenic	:	No data available

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 2-MERCAPTOETHANOL

CAS Number: 60-24-2

Risks to Humans

US. National Toxicology
Program (NTP) Report on
Carcinogens

: No data available

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

: No data available.

Germ cell mutagenicity

Test Type: Chromosome aberration test

Species: Mouse

: Cell type: Bone marrow

Application Route: Intraperitoneal

Method: OECD Test Guideline 474

Result: negative

In vitro Product

: No data available.

Reproductive toxicity
Product

: Suspected of damaging fertility.

Specific target organ
toxicity - single exposure
Product

: No data available.

Specific target organ
toxicity - repeated
exposure Product: Ingestion - May cause damage to organs through prolonged or repeated exposure. - Liver,
Heart.

Aspiration hazard Product

: No data available.

Other effects

: None known.

12. ECOLOGICAL INFORMATION:

Ecotoxicity

Acute hazards to the aquatic environment

Fish Product

: static test LC50 - Leuciscus idus (Golden orfe) - 37 mg/l - 96 h (DIN 38412 T15)

Aquatic invertebrates
Product

: static test EC50 - Daphnia magna (Water flea) - 0,4 mg/l - 48 h (OECD Test Guideline 202)

Chronic hazards to the aquatic environment

Fish Product

: No data available.

Aquatic invertebrates
Product: semi-static test NOEC - Daphnia magna (Water flea) - > 0,0632 mg/l - 21 d (OECD Test
Guideline 211)Toxicity to Aquatic Plants
Product:: static test ErC50 - Desmodesmus subspicatus (green algae) - 19 mg/l - 72 h (OECD Test
Guideline 201)

Persistence and degradability

Biodegradation Product

aerobic - Exposure time 60 d

: Result: 69 % - Not readily biodegradable.

(OECD Test Guideline 310)

Remarks: (ECHA)



MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 2-MERCAPTOETHANOL

CAS Number: 60-24-2

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.

Mobility in soil : No data available

Other adverse effects : Discharge into the environment must be avoided.

13. DISPOSAL CONSIDERATION:

Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.

Contaminated packaging : Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION:

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN 2966	2-Mercaptoethanol	6.1	II	Yes
IMDG	UN 2966	2-Mercaptoethanol	6.1	II	Yes
IATA	UN 2966	2-Mercaptoethanol	6.1	II	No

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: 2-MERCAPTOETHANOL

CAS Number: 60-24-2

16. OTHER INFORMATION:

NFPA Hazard ID



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

Issue Date : 23/05/2026

Version : 02

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