SAFETY DATA SHEET
SDS/MSDS

2-MERCAPTOETHANOL FOR SYNTHESIS
MSDS CAS: 000060-24-2

52022

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : 2-MERCAPTOETHANOL FOR SYNTHESIS
Product code : 52022
Identification of the product : 2-MERCAPTOETHANOL 98%
CAS No :60-24-2

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

Use : Laboratory. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : BIOCHEM CHEMOPHARAMA France
82 AV du 85eme de ligne 58200 Cosne Sur Loire
FRANCE
Tel : +33 3.86.27.24.96

1.4. Emergency telephone number

Phone nr : +33 3.86.27.24.96 (9:00am – 4:15pm)

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : T; R24
Xn; R20/22
C; R34
N; R51-53

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Acute toxicity, Inhalation - Category 4 - Warning (CLP : Acute Tox. 4) H332
Acute toxicity, dermal - Category 3 - Danger (CLP : Acute Tox. 3) H311
Skin corrosion - Category 1B - Danger (CLP : Skin Corr. 1B) H314
Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302

Environmental hazards : Hazardous to the aquatic environment - Chronic hazard - Category 2 (CLP : Aquatic Chronic 2) H411

2.2. Label elements

2. Hazards identification -DSD (continued)

Labelling EC 67/548 or EC 1999/45

Symbol(s)

Symbol(s) : T : Toxic
N : Dangerous for the environment

R Phrase(s) : R20/22 : Harmful by inhalation and if swallowed.
R24 : Toxic in contact with skin.
R34 : Causes burns.
R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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 when possible).
S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms

Signal words : Danger

Hazard statements : H314 : Causes severe skin burns and eye damage.
H311 : Toxic in contact with skin.
H302 : Harmful if swallowed.
H332 : Harmful if inhaled.
H411 : Toxic to aquatic life with long lasting effects.

Precautionary statements

• Prevention : P280: Wear protective gloves, protective clothing, eye protection, face protection.
P271: Use only outdoors or in a well-ventilated area.
P260: Do not breathe dust, fume, gas, mist, vapours, spray.
P273: Avoid release to the environment.
P264: Wash thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.

• Response : P302+P352: IF ON SKIN : Wash with plenty of soap and water.
P301+P330+P331: IF SWALLOWED : Rinse mouth. Do NOT induce vomiting.
P391: Collect spillage.
P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

2. Hazards identification -DSD (continued)

P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.
P363: Wash contaminated clothing before reuse.
P361: Remove immediately all contaminated clothing.

- **Storage** : P405: Store locked up.
- **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

Substance / Preparation : 2-MERCAPTOETHANOL 98%
CAS No :60-24-2
Substance.

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures

4.1. Description of first aid measures

Inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor. Call a POISON CENTER or doctor if you feel unwell.

Skin contact : Specific treatment (see on this label). Immediately call a POISON CENTER or doctor. Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

Eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. Rinse cautiously with water for several minutes.

Ingestion : Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms relating to use : Repeated exposure to this material can result in absorption through skin causing significant health hazard.
Causes severe skin burns and eye damage.
Danger of serious damage to health by prolonged exposure through inhalation.
Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

4. First aid measures (continued)

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

Surrounding fires : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.
Thermal decomposition generates : Corrosive vapours.

5.3. Advice for fire-fighters

Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.

Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection.
Ventilate area.

For non-emergency personnel : Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Clean up methods : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

6. Accidental release measures (continued)

See section 8. Exposure controls/personal protection

7. Handling and storage

7.1. Precautions for safe handling

Handling : Do not eat, drink or smoke when using this product. Do not breathe dust, fume, gas, mist, vapours, spray. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use only outdoors or in a well-ventilated area.

Technical protective measures : Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

Storage regulation : Comply with applicable regulations.

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Specific end use(s) : None.

8. Exposure controls/personal protection

8.1. Exposure controls

Personal protection : Avoid all unnecessary exposure.

- **Respiratory protection** : In case of insufficient ventilation, wear suitable respiratory equipment.
- **Hand protection** : Wear protective gloves.
- **Skin protection** : Wear suitable protective clothing.
- **Eye protection** : Chemical goggles or face shield.
- **Others** : When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits : No data available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

9. Physical and chemical properties (continued)

Physical state at 20 °C	: Liquid.
Colour	: Pale pinkish colour
Odour	: Disagreeable odor
Odour threshold	: No data available.
pH value	: No data available.
Melting point [°C]	: < -50 °C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: 295 °C
Flammability (solid, gas)	: N/A
Flash point [°C]	: 68 °C
Boiling point [°C]	: 157 °C
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: N/A
Vapour pressure [20°C]	: 0.76 hPa at 20 °C
Vapour pressure mm/Hg	: N/A
Vapour density	: 2,7
Density [g/cm3]	: 1,114
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Soluble in water
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: 4.5 - 6 at 500 g/l a
Viscosity at 40°C [mm2/s]	: N/A

9.2. Other information

Explosive properties	: N/A
Explosion limits - upper [%]	: 18%
Explosion limits - lower [%]	: 2,30%
Oxidising properties	: No data available.

10. Stability and reactivity

10.1. Reactivity

Reactivity : Not established.

10. Stability and reactivity (continued)

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.
Thermal decomposition generates : Corrosive vapours.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity

- **Inhalation** : Harmful if inhaled.
- **Dermal** : Toxic in contact with skin.
- **Ingestion** : Harmful if swallowed.

Corrosion : Causes severe skin burns and eye damage.

Irritation : Based on available data, the classification criteria are not met.

Sensitization : Based on available data, the classification criteria are not met.

Mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Based on available data, the classification criteria are not met.

Toxic for reproduction : Based on available data, the classification criteria are not met.

STOT-single exposure : Based on available data, the classification criteria are not met.

STOT-repeated exposure : Based on available data, the classification criteria are not met.

Aspiration hazard : Based on available data, the classification criteria are not met.

12. Ecological information

12.1. Toxicity

Toxicity information : Toxic to aquatic life with long lasting effects.

12.2. Persistence - degradability

Persistence - degradability : May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions : Avoid release to the environment.

13. Disposal considerations

13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Special precautions : Hazardous waste due to toxicity.

14. Transport information

14.1. Land transport (ADR-RID)

Proper shipping name : THIOGLYCOL
UN N° : 2966
H.I. nr :60

14. Transport information (continued)

ADR - Class : 6.1
Labelling - Transport : 6.1 : Toxic substances.

ADR - Classification code :T1
ADR - Group :II
ADR - Packing instructions : P001
ADR - Limited Quantity : 100 ML
ADR - Tunnel code : D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.

14.2. Sea transport (IMDG) [English only]

Proper shipping name : THIOGLYCOL
UN N° : 2966
IMO-IMDG - Class or division : 6.1 : Toxic substances.
IMO-IMDG - Packing group :II
IMO- IMDG - Packing instructions : P001
IMO-IMDG - Limited quantities : 100 ml
IMO-IMDG - Marine pollution : Yes
EMS-Nr : F-A S-A

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : THIOGLYCOL
UN N° : 2966
IATA - Class or division : 6.1 : Toxic substances.
IATA - Packing group :II
IATA - Passenger and Cargo Aircraft : ALLOWED
- Passenger and Cargo - Packing instruction : 654
- Passenger and Cargo - Maximum Quantity/Packing :5 L
IATA - Cargo only : ALLOWED
- Cargo only - Packing instruction : 662

14. Transport information (continued)

- Cargo only - Maximum Quantity/ Packing	: 60 L
IATA - Limited Quantites	:1 L
ERG-Nr	:6L

15. Regulatory information

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

Safety, health and environmental regulations/legislation specific for the substance or mixture	: Ensure all national/local regulations are observed.
REACH Restrictions - Annex XVII	: The components of this product are not subject to restrictions.
REACH Authorisation - Annex XIV	: The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment	: It has not been carried out.

16. Other information

Revision	: Revision - See : *
Abbreviations and acronyms	: PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative
Sources of key data used	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
Further information	: None.

In accordance with REACH Regulation (CE) Nº 1907/2006 and with CLP Regulation (CE) Nº 1272/2008

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