



Ethyl Mercaptan

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Issue date: 12/17/2015
Revision date: 1/11/2022
Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Ethyl Mercaptan
CAS-No. : 75-08-1
Product code : Not available

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Additive.

1.3. Supplier

Distributor

NGL Supply Co., Ltd.
1420, 225 - 6th Avenue SW
Calgary, Alberta T2P 1N2
T 403-265-1977

Distributor

NGL Supply Terminal Company
720 South Colorado Blvd. Suit 720N
Denver, CO 80246 - USA
T 303-839-1806

1.4. Emergency telephone number

Emergency number : CHEMTREC 1 (800) 424-9300
ERAC Emergency Response 1-800-265-0212

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS classification

Flam. Liq. 1
Acute Tox. 4 (Oral)
Acute Tox. 4 (Inhalation)
STOT SE 3

2.2. GHS Label elements, including precautionary statements

GHS labelling

Hazard pictograms (GHS) :



Signal word (GHS) :

Danger

Hazard statements (GHS) :

Extremely flammable liquid and vapour.
Harmful if swallowed or if inhaled
May cause drowsiness or dizziness.

Precautionary statements (GHS) :

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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.
Avoid breathing dust/fume/gas/mist/vapours/spray.

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Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center or doctor if you feel unwell.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center or doctor if you feel unwell.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%
Ethanethiol	Ethanethiol Ethyl mercaptan / Ethyl hydrosulfide / Ethyl sulfhydrate / Ethyl thioalcohol / Thioethanol / Thioethyl alcohol / ethanethiol	CAS-No.: 75-08-1	100

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a POISON CENTER/doctor if you feel unwell.

First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash clothing before re-using. Get medical attention if irritation develops and persists.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Potential adverse human health effects and symptoms : Harmful if inhaled. Harmful if swallowed.

Symptoms/effects after inhalation : Harmful if inhaled. May cause respiratory tract irritation. May cause drowsiness or dizziness.

Symptoms/effects after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

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Symptoms/effects after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3. Immediate medical attention and special treatment, if necessary

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

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: Extremely flammable liquid and vapour. Products of combustion may include, and are not limited to: oxides of carbon. Oxides of sulfur.
Explosion hazard	: May form flammable/explosive vapour-air mixture.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Eliminate all ignition sources if safe to do so.
Protection during firefighting	: Cool down the containers exposed to heat with a water spray. Vapours may be heavier than air and may travel along the ground to a distant ignition source and flash back. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Use special care to avoid static electric charges. Eliminate every possible source of ignition. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Ruptured cylinders may rocket. . Remove all sources of ignition.
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6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Eliminate sources of ignition. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
Methods for cleaning up	: Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling	: Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharge. Use explosion-proof equipment. Use only non-sparking tools. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Use only in well-ventilated areas. When using do not eat, drink or smoke. Do not swallow. Handle and open container with care.
Hygiene measures	: Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Proper grounding procedures to avoid static electricity should be followed.
Storage conditions	: Keep out of the reach of children. Store away from direct sunlight or other heat sources. Keep cool. Keep container tightly closed. Store in a well-ventilated place.
Storage area	: Store in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethyl Mercaptan (75-08-1)	
No additional information available	
Ethanethiol (75-08-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	0.5 ppm
USA - OSHA - Occupational Exposure Limits	
OSHA PEL C	25 mg/m ³
OSHA PEL C [ppm]	10 ppm
USA - IDLH - Occupational Exposure Limits	
IDLH [ppm]	500 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL C	1.3 mg/m ³
NIOSH REL C [ppm]	0.5 ppm

8.2. Appropriate engineering controls

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits. Ensure good ventilation of the work station.
Environmental exposure controls	: Maintain levels below Community environmental protection thresholds. Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Wear suitable gloves
Eye protection:
Safety glasses or goggles are recommended when using product.

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Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Colour	: Colourless
Odour	: Characteristic
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: $\approx 35\text{ }^{\circ}\text{C}$ ($\approx 95\text{ }^{\circ}\text{F}$)
Flash point	: $< -18\text{ }^{\circ}\text{C}$ ($< -0.4\text{ }^{\circ}\text{F}$)
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Extremely flammable liquid and vapour.
Vapour pressure	: 442 mm Hg @ 20° C (68 °F)
Relative vapour density at 20 °C	: 2.14 (Air = 1)
Relative density	: 0.839 @ 20 °C (68 °F)
Solubility	: Water: 6.8 g/l @ 20 °C (68 °F)
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: $\approx 299\text{ }^{\circ}\text{C}$ ($\approx 570\text{ }^{\circ}\text{F}$)
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

May form flammable/explosive vapour-air mixture. Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

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10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Sparks. Heat. Incompatible materials. Sources of ignition.

10.5. Incompatible materials

Oxidizers. Metals.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Oxides of sulfur. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified.
Acute toxicity (inhalation) : Harmful if inhaled. Harmful if inhaled.

Ethyl Mercaptan (75-08-1)

LD50 oral rat	682 mg/kg
LD50 dermal rabbit	No data available
LC50 inhalation rat	4420 ppm/4h
ATE CA (oral)	682 mg/kg bodyweight
ATE CA (Gases (except aerosol dispensers and lighters))	4420 ppmv/4h
ATE CA (vapours)	11 mg/l/4h
ATE CA (dust,mist)	1.5 mg/l/4h

Ethanethiol (75-08-1)

LD50 oral rat	682 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat	11.23 mg/l air Animal: rat, Animal sex: male, Remarks on results: other:
LC50 inhalation rat	4420 ppm/4h
ATE CA (oral)	682 mg/kg bodyweight
ATE CA (Gases (except aerosol dispensers and lighters))	4420 ppmv/4h
ATE CA (vapours)	11 mg/l/4h
ATE CA (dust,mist)	1.5 mg/l/4h

Skin corrosion/irritation : Not classified.
Serious eye damage/irritation : Not classified.
Respiratory or skin sensitisation : Not classified.
Germ cell mutagenicity : Not classified.
Carcinogenicity : Not classified.
Reproductive toxicity : Not classified.
STOT-single exposure : May cause drowsiness or dizziness.

Ethanethiol (75-08-1)

STOT-single exposure	May cause drowsiness or dizziness.
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: Not classified.

STOT-repeated exposure

Ethanethiol (75-08-1)	
NOAEL (oral, rat, 90 days)	≥ 200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, vapour, 90 days)	0.55 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Aspiration hazard	: Not classified.
Potential adverse human health effects and symptoms	: Harmful if inhaled. Harmful if swallowed.
Symptoms/effects after inhalation	: Harmful if inhaled. May cause respiratory tract irritation. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/effects after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause stomach distress, nausea or vomiting.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Ethanethiol (75-08-1)	
LC50 - Fish [1]	2.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 - Crustacea [1]	90 – 280 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	0.09 – 0.28 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and degradability

Ethyl Mercaptan (75-08-1)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Ethyl Mercaptan (75-08-1)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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Additional information : Handle empty containers with care because residual vapours are flammable.

SECTION 14: Transport information

In accordance with DOT / TDG

14.1. UN number

DOT NA No : UN2363
UN-No. (TDG) : UN2363

14.2. UN proper shipping name

Proper Shipping Name (DOT/TDG) : Ethyl mercaptan

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 3
Hazard labels (DOT) : 3



TDG

Transport hazard class(es) (TDG) : 3
Hazard labels (TDG) : 3



14.4. Packing group

Packing group (DOT) : I
Packing group (TDG) : I

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

DOT

UN-No.(DOT) : UN2363

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DOT Special Provisions (49 CFR 172.102)	: A6 - For combination packagings, if plastic inner packagings are used, they must be packed in tightly closed metal receptacles before packing in outer packagings. T11 - 6 178.274(d)(2) Normal. 178.275(d)(3) TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively. TP13 - Self-contained breathing apparatus must be provided when this hazardous material is transported by sea.
DOT Packaging Exceptions (49 CFR 173.xxx)	: None
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 201
DOT Packaging Bulk (49 CFR 173.xxx)	: 243
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: Forbidden
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 30 L
DOT Vessel Stowage Location	: E - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length, but is prohibited from carriage on passenger vessels in which the limiting number of passengers is exceeded.
DOT Vessel Stowage Other	: 95 - Stow "separated from" foodstuffs, 102 - Stow "separated from" all odor absorbing cargoes

TDG

UN-No. (TDG)	: UN2363
Explosive Limit and Limited Quantity Index	: 0
Excepted quantities (TDG)	: E0
Passenger Carrying Ship Index	: Forbidden
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	: Forbidden
Emergency Response Guide (ERG) Number	: 129

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

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SECTION 16: Other information

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Revision date : 01/11/2022
Other information : None.
Prepared by : Nexreg Compliance Inc.
www.Nexreg.com



Full text of H-statements	
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Flam. Liq. 1	Flammable liquids, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis

Indication of changes:

SDS update.

SDS HazCom 2012 - WHMIS 2015 (Nexreg) 2021

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