

**Ethylthioethanol**

Version 1.3

Revision Date 2016-06-07

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product information**

Product Name : Ethylthioethanol  
Material : 1024590, 1024803, 1024802, 1027450

Use : Chemical intermediate

**Company** : Chevron Phillips Chemical Company LP  
Specialty Chemicals  
10001 Six Pines Drive  
The Woodlands, TX 77380

**Emergency telephone:****Health:**

866.442.9628 (North America)

1.832.813.4984 (International)

**Transport:**

CHEMTREC 800.424.9300 or 703.527.3887(int'l)

Asia: +800 CHEMCALL (+800 2436 2255) China: +86-21-22157316

EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)

South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

Responsible Department : Product Safety and Toxicology Group  
E-mail address : SDS@CPChem.com  
Website : www.CPChem.com

**SECTION 2: Hazards identification****Classification of the substance or mixture  
REGULATION (EC) No 1272/2008****Emergency Overview****Danger****Physical state:** Liquid **Color:** Colorless **Odor:** Pungent

OSHA Hazards : Combustible Liquid, Corrosive to eyes

**Classification**

: Flammable liquids, Category 4  
Serious eye damage, Category 1

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**Labeling**

Symbol(s)

:



Signal Word

:

Danger

Hazard Statements

:

H227: Combustible liquid.  
H318: Causes serious eye damage.

Precautionary Statements

:

**Prevention:**

P210 Keep away from heat/sparks/open flames/hot surfaces.  
No smoking.

P280 Wear protective gloves/ eye protection/ face protection.

**Response:**

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**

P403 + P235 Store in a well-ventilated place. Keep cool.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Carcinogenicity:****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.

**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.

**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.

**SECTION 3: Composition/information on ingredients**

Synonyms

:

2-Ethylthioethanol  
ETE

Molecular formula

:

C<sub>4</sub>H<sub>10</sub>OS

Component	CAS-No.	Weight %
Ethyl Thioethanol	110-77-0	99.7

**SECTION 4: First aid measures**

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- |                         |   |   |
|-------------------------|---|---|
| General advice          | : | Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance. Do not leave the victim unattended.  |
| If inhaled              | : | If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.   |
| In case of skin contact | : | If on skin, rinse well with water. If on clothes, remove clothes.   |
| In case of eye contact  | : | Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. |
| If swallowed            | : | Keep respiratory tract clear. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.  |

**SECTION 5: Firefighting measures**

- |  |   |  |
|--|---|--|
| Flash point                                    | : | 78 °C (172 °F)<br>Method: Tag closed cup   |
| Autoignition temperature                       | : | No data available  |
| Suitable extinguishing media                   | : | Carbon dioxide (CO2).  |
| Unsuitable extinguishing media                 | : | High volume water jet.   |
| Specific hazards during fire fighting          | : | Do not allow run-off from fire fighting to enter drains or water courses.  |
| Special protective equipment for fire-fighters | : | Wear self-contained breathing apparatus for firefighting if necessary.   |
| Further information                            | : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers. |
| Fire and explosion protection                  | : | Do not spray on an open flame or any other incandescent material. Keep away from open flames, hot surfaces and sources of ignition.  |
| Hazardous decomposition products               | : | Carbon oxides. Sulfur oxides.  |

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**SECTION 6: Accidental release measures**

- Personal precautions : Use personal protective equipment.
- Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

**SECTION 7: Handling and storage****Handling**

- Advice on safe handling : Avoid formation of aerosol. Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion : Do not spray on an open flame or any other incandescent material. Keep away from open flames, hot surfaces and sources of ignition.

**Storage**

- Requirements for storage areas and containers : No smoking. 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. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

**SECTION 8: Exposure controls/personal protection****Engineering measures**

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**Personal protective equipment**

- Respiratory protection : Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved

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respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Full-Face Supplied-Air Respirator. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

- Hand protection : The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Eye protection : Eye wash bottle with pure water. Tightly fitting safety goggles. Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate: Complete head face and neck protection. Rubber apron. Footwear protecting against chemicals.
- Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

**SECTION 9: Physical and chemical properties****Information on basic physical and chemical properties****Appearance**

- Physical state : Liquid
- Color : Colorless
- Odor : Pungent

**Safety data**

- Flash point : 78 °C (172 °F)  
Method: Tag closed cup
- Lower explosion limit : No data available
- Upper explosion limit : No data available
- Oxidizing properties : no
- Autoignition temperature : No data available
- Thermal decomposition : No data available
- Molecular formula : C<sub>4</sub>H<sub>10</sub>OS
- Molecular weight : 106.18 g/mol

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pH	: Not applicable
Pour point	: No data available
Boiling point/boiling range	: 183.5 °C (362.3 °F)
Vapor pressure	: No data available
Relative density	: 1.02 at 15.6 °C (60.1 °F)
Density	: 1.018 g/cm <sup>3</sup>
Water solubility	: Partly soluble
Partition coefficient: n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Relative vapor density	: No data available
Evaporation rate	: No data available
Percent volatile	: > 99 %

**SECTION 10: Stability and reactivity**

Chemical stability	: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
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**Possibility of hazardous reactions**

Conditions to avoid	: Heat, flames and sparks.
Thermal decomposition	: No data available
Hazardous decomposition products	: Carbon oxides Sulfur oxides
Other data	: No decomposition if stored and applied as directed.

**SECTION 11: Toxicological information****Acute oral toxicity**

Ethyl Thioethanol	: LD50: > 2,000 mg/kg Species: Rat Sex: female Method: OECD Test Guideline 423
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**Skin irritation**

Ethyl Thioethanol : No skin irritation

**Eye irritation**

Ethyl Thioethanol : Risk of serious damage to eyes.

**Sensitization**

Ethyl Thioethanol : Did not cause sensitization on laboratory animals.

**CMR effects**

Ethyl Thioethanol : Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

**Ethylthioethanol****Further information** : No data available.**SECTION 12: Ecological information****Toxicity to daphnia and other aquatic invertebrates**Ethyl Thioethanol : EC50: 29.6 mg/l  
Exposure time: 24 h  
Species: Daphnia magna (Water flea)  
static test Method: OECD Test Guideline 202**Toxicity to algae**Ethyl Thioethanol : > 100 mg/l  
Exposure time: 72 h  
Species: Desmodesmus subspicatus (green algae)  
Method: OECD Test Guideline 201**Biodegradability**Ethyl Thioethanol : aerobic  
Result: Not readily biodegradable.  
8 %  
Testing period: 28 Days  
Method: Directive 67/548/EEC Annex V, C.4.E.**Ecotoxicology Assessment****Acute aquatic toxicity**

Ethyl Thioethanol : Harmful to aquatic life.

**Chronic aquatic toxicity**

Ethyl Thioethanol : Harmful to aquatic life with long lasting effects.

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Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

**SECTION 13: Disposal considerations**

The information in this SDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product : The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

**SECTION 14: Transport information**

**The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).**

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

**US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)**

NA1993, COMBUSTIBLE LIQUID, N.O.S., (ETHYL THIOETHANOL), III

**IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

**IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)**

UN3334, AVIATION REGULATED LIQUID, N.O.S., (ETHYL THIOETHANOL), 9, III

**ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

**RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR



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TRANSPORTATION BY THIS AGENCY.

**ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

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

**SECTION 15: Regulatory information****National legislation****SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard**EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO - KNOW****SARA 302 Threshold Planning Quantity** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**SARA 313 Ingredients** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**Clean Air Act****Ozone-Depletion Potential** : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

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**US State Regulations**

Pennsylvania Right To Know

: Ethyl Thioethanol - 110-77-0

New Jersey Right To Know

: Ethyl Thioethanol - 110-77-0

California Prop. 65  
Ingredients

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

**Notification status**

Europe REACH

: On the inventory, or in compliance with the inventory

United States of America TSCA

: On the inventory, or in compliance with the inventory

Canada NDSL

: This product contains one or several components listed in the Canadian NDSL.

Australia AICS

: On the inventory, or in compliance with the inventory

New Zealand NZIoC

: Not in compliance with the inventory

Japan ENCS

: On the inventory, or in compliance with the inventory

Korea KECI

: On the inventory, or in compliance with the inventory

Philippines PICCS

: On the inventory, or in compliance with the inventory

China IECSC

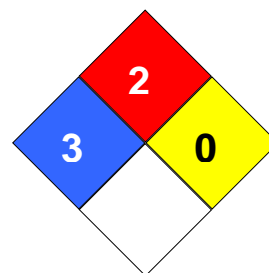
: Not in compliance with the inventory

**SECTION 16: Other information****NFPA Classification**

: Health Hazard: 3

Fire Hazard: 2

Reactivity Hazard: 0

**Further information**

Legacy SDS Number

: 44020

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this 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

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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.

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		