

Section 1. Product and Company Identification

Product Name 2-Ethylhexyl Thioglycolate
CAS Number 7659-86-1

Parchem - fine & specialty chemicals

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EMERGENCY RESPONSE NUMBER
CHEMTEL

Toll Free US & Canada: 1 (800) 255-3924

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Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture

GHS Classification Regulation (EC) No 1272/2008

Acute toxicity, Category 4 H302: Harmful if swallowed.

Skin sensitization, Category 1 A H317: May cause an allergic skin reaction.

Acute aquatic toxicity, Category 1 H400: Very toxic to aquatic life.

Chronic aquatic toxicity, Category 1 H410: Very toxic to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Xn Harmful

R22 Harmful if swallowed.

Xi Irritant

R43 May cause sensitization by skin contact.

N Dangerous for the environment

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GHS Label Elements

Pictograms:



Signal word: WARNING

Hazard and precautionary statements

Hazard Statements

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.



H410 Very toxic to aquatic life with long lasting effects

Precautionary Statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P270 Do not eat, drink, or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/eye protection/ face protection.

Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

Section 3. Composition / Information on Ingredients

Common Name 2-Ethylhexyl Thioglycolate
Synonym(s) 2-Ethylhexyl Mercaptoacetate
CAS Number 7659-86-1

COMPONENT	CAS NUMBER	CONCENTRATION
2-Ethylhexyl Thioglycolate	7659-86-1	≥ 99.5%

Section 4. First Aid Measures

Description of first-aid measures

General advice: Take off contaminated clothing and shoes immediately.

Inhalation: Remove to fresh air. Oxygen, if needed.

Skin contact: Wash off immediately with soap and plenty of water.

Eye contact: Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.

Ingestion: Rinse mouth. If conscious, give the victim plenty of water to drink. Induce vomiting if person is conscious. Hold person's head low, to prevent aspiration (inhalation into the windpipe) In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Most important symptoms and effects, both acute and delayed

Lungs: Cough

Eyes: Inflammation

Skin: May cause sensitization by skin contact.

Oral: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Indication of any immediate medical attention and special treatment needed

This ester can cause moderately serious poisoning effects. Elimination is therefore the main aim of treatment. Due to its non-corrosive nature, elimination can be achieved through immediate vomiting or irrigation of the stomach if the chemical is ingested. It is helpful to give the person powdered carbon afterwards. Take preventive measures against aspiration (intubation if necessary). May cause sensitization by skin contact.

Irritated areas of skin can be treated with corticosteroids. Corticosteroids are effective following inhalation too. Treat symptomatically.

Section 5. Firefighting Measures

Extinguishing media: Foam; Carbon dioxide (CO₂)

Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions: Sulphur oxides; Carbon monoxide

Advice for firefighters

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Additional advice: Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use water spray to cool unopened containers.

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Exposure controls. Ensure adequate ventilation. Avoid contact with the skin and the eyes. For personal protection see section 8. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions: Do not allow contact with soil, surface or ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Treat recovered material as described in the section "Disposal considerations".

Section 7. Handling and Storage

Precautions for safe handling

Advice on safe handling: Use only in closed systems.

Before a closed system is opened, purge and wash the system.

Exposure controls: Handle and open container with care. Ventilate the area. Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin and eyes. Ensure that eye flushing systems and safety showers are located close to the working place. Only trained and authorized personnel is allowed to handle the substance. Document substance-handling procedures. Handling supervision by site operator.

Advice on protection against fire and explosion: Keep away from heat and sources of ignition. To avoid thermal decomposition, do not overheat.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Use PTFE seals. Containers of precious steel (316), polyethylene, polypropylene.

Further information on storage conditions: Store in accordance with the particular national regulations.

Advice on common storage: Keep away from oxidizing agents. Keep away from food, drink, and animal feeding stuffs.

Section 8. Exposure Controls / Personal Protection

Control parameters

CAS Number	Identification	Value	Basis	Note
7659-86-1	2-Ethylhexyl mercaptoacetate		TRGS 900	None listed

Exposure Controls

Engineering Measures: Use only in area provided with appropriate exhaust ventilation.

Occupational exposure controls

Personal protective equipment

Respiratory protection: No personal respiratory protective equipment normally required. In case of insufficient ventilation, wear suitable respiratory equipment.

Recommended Filter type: gas filter type A.

Follow the instructions for use issued by the producer.

Hand protection: Protective gloves

Butyl-rubber | Layer thickness 0.6 - 0.8 mm | Break through time > 480 min (level 6) | EN 374

Viton (Vitoject 890) | Layer thickness 0.7 mm | Break through time > 480 min (level 6) | EN 374

General recommendation: the usage time for protective gloves is approx. 50% of the breakthrough time measured in the laboratory.

Eye protection: Wear eye/face protection. Tightly fitting safety goggles

Skin and body protection: Wear closed work/protective clothing. When working outside a closed system, additionally put on aprons made of polyethylene (PE).

Hygiene measures: Provide sufficient air exchange and/or exhaust in work rooms. Wash hands before breaks and at the end of workday. Preventive skin protection. Avoid contact with the skin and the eyes. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Keep working clothes separately. Take off contaminated clothing and wash before reuse.

Environmental exposure controls

General advice: Do not allow contact with soil, surface, or ground water.

If the product contaminates rivers and lakes or drains inform respective authorities.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form: liquid

Color: Colorless

Odor: Characteristic

Flash point: 117.5°C

Lower explosion limit: No data available

Upper explosion limit: No data available

Auto-ignition temperature: 250°C

pH: Not available

Pour point: < -50°C

Boiling point/boiling range: 242 - 259°C

Vapor pressure (25°C): 0.02 hPa

Density (20°C): 0.973 - 0.975 g/cm³

Water solubility (20°C): 4.73 mg/L

Partition coefficient (n-Octanol/water): logPow: 4.7

Section 10. Stability and Reactivity

Reactivity: No data available

Chemical stability: No data available

Hazardous reactions: No data available

Incompatible materials to avoid: Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Section 11. Toxicological Information

Information on toxicological effects

Toxicokinetics, metabolism, and distribution

Sensitization: May cause sensitization

Acute Toxicity

Acute Oral toxicity

LD50 - Rat: 303 mg/kg

LD50 - Rat: < 500 mg/kg

Acute dermal toxicity

LD50 - Rat: > 2,000 mg/kg

Irritation and corrosion

Skin irritation

Result: Mild skin irritation

Species: Rabbit

Eye irritation

Result: No eye irritation

Species: Rabbit

Sensitization

Result: Causes sensitization.

Species: guinea pig

Repeated dose toxicity

Application route: Oral

Species: Rat

Exposure time: 28 d

Remarks: NOAEL = 0.2% (173 mg/kg bw)

NOEL: 150 mg/kg

Application route: gavage

Species: Rat

Exposure time: 7 d

Reproductive toxicity

Application route: Oral

Species: Rat

Note: NOAEL =50 mg/kg/day

Ames test

Result: Not mutagenic

Note: OECD 471

Micronucleus test

Result: Not mutagenic

Note: OECD 474

Chromosome aberration test in vitro

Result: No clastogenic activity

Note: OECD 473

In vitro gene mutation study in mammalian cells

Result: Not mutagenic

Note: OECD 476

Section 12. Ecological Information

Toxicity

Toxicity to fish

LC50 - Oncorhynchus mykiss (96 h): 0.23 mg/l

Toxicity to daphnia

EC50 - Daphnia magna (48 h): 0.38 mg/l

Toxicity to algae

EC50 - Pseudokirchneriella subcapitata: 0.41 mg/l

Toxicity to bacteria

EC 20 - activated sludge (3 h): > 100 mg/l

EC50 - Pseudomonas putida (16 h): 2.7 mg/l

Persistence and degradability

Stability in water

Degradation half-life: 12 h (pH: 4.0)

Degradation half-life: 12 h (pH: 7.0)

Degradation half-life: 16 h (pH: 9.0)

Ecotoxicology Assessment

Impact on Sewage Treatment: Respiration inhibition of activated sludge, EC20 > 100 mg/l

Further information on ecology

Biodegradability: Result: Readily biodegradable. (82%/28 d)

Note: 10-d window was met

Bioaccumulative potential

Partition coefficient (n-Octanol/water): log Pow: 4.7

Bioaccumulation

Bioconcentration factor (BCF): 895

Method: calculated

Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is possible.

Mobility in soil

Distribution among environmental compartments

Adsorption/Soil

log Pow: 3.26

Remarks: Slightly mobile in soils

This substance is not considered to be persistent or toxic (PBT). Due to the distribution coefficient n-



Octanol/water, accumulation in organisms is possible.

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

ADR

UN number: UN3082 (2-Ethylhexyl thioglycolate)

Class: Class 9

Packing group: PG III

Hazard identification No: 90

Labels: 9

Tunnel restriction code: (E)

Environmentally hazardous: Yes

IATA

UN number: UN3082

Description of the goods: Environmentally hazardous substance, liquid, n.o.s.
(2-Ethylhexyl Thioglycolate)

Class: Class 9

Packing group: PG III

Labels: 9

Packing instruction (cargo aircraft): 964

Environmentally hazardous: Yes

Packing instruction (passenger aircraft): 964

IMDG

UN number: UN3082

Description of the goods: Environmentally Hazardous Substance, Liquid,
N.O.S. (2-Ethylhexyl thioglycolate)

Class: Class 9

Packing group: PG III

Labels: 9

EmS Number 1: F-A

EmS Number 2: S-F

Marine Pollutant: Yes

Section 15. Regulatory Information

Labelling 67/548/EEC and 1999/45/EC

Symbols

Xn Harmful

N Dangerous for the environment

R-phrases

R22 Harmful if swallowed.

R43 May cause sensitization by skin contact.

R50/R53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases

S24 Avoid contact with skin.

S37 Wear suitable gloves.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Hazardous components which must be listed on the label: 2-Ethylhexyl mercaptoacetate

Further information: The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

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

Take note of Dir 94/33/EC on the protection of young people at work.

Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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