SECTION 1. Identification

Product identifier

Product number 840112
Product name 2-Ethylhexyl thioglycolate for synthesis

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

Identified uses Chemical for synthesis

Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | SDS Phone Support: +1-978-715-1335 | General Inquiries: +1-978-751-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)
e-mail: mm_sds@merckgroup.com

Emergency telephone 613-996-6666 CANUTEC (Canada)
+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Flammable liquid, Category 3, H226
Chronic aquatic toxicity, Category 1, H410
Acute toxicity, Category 4, Oral, H302
Skin sensitization, Category 1, H317
Acute aquatic toxicity, Category 1, H400

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms

Signal Word
Warning
Hazard Statements
H226 Flammable liquid and vapor.
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P262 Do not get in eyes, on skin, or on clothing.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

Other hazards
None known.

SECTION 3. Composition/information on ingredients
Formula C₁₀H₂₀O₂S (Hill)
CAS-No. 7659-86-1
Molar mass 204.32 g/mol

Hazardous ingredients
Chemical Name (Concentration)
CAS-No.
2-ethylhexyl thioglycolate (>= 90 % - <= 100 % )
7659-86-1

SECTION 4. First aid measures
Description of first-aid measures
Inhalation
After inhalation: fresh air.

Skin contact
After skin contact: wash off with plenty of water. Remove contaminated clothing.

Eye contact
After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

Ingestion
After swallowing: immediately make victim drink water (two glasses at most). Subsequently administer: Consult a physician.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed
Allergic reactions, Dizziness, Gastrointestinal disturbance, cardiovascular disorders, Headache

Indication of any immediate medical attention and special treatment needed
Subsequently administer:
Sodium sulfate (1 tablespoon/1/4 l water).
SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO2), Foam, Dry powder

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

Special hazards arising from the substance or mixture
Combustible material. Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air at elevated temperatures.
Development of hazardous combustion gases or vapors possible in the event of fire.
Fire may cause evolution of:
Sulfur oxides, hydrogen sulfide

Advice for firefighters

Special protective equipment for fire-fighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by
keeping a safe distance or by wearing suitable protective clothing.

Further information
Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing
water from contaminating surface water or the ground water system. Cool closed containers
exposed to fire with water spray.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid substance contact. Do not breathe vapors, aerosols.
Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult
an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions
Do not empty into drains. Risk of explosion.

Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7 and 10).
Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up
affected area.

SECTION 7. Handling and storage

Precautions for safe handling
Observe label precautions.

Advice on protection against fire and explosion
Keep away from open flames, hot surfaces and sources of ignition. Take precautionary
measures against static discharge.
Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers

In V₂A/V₄A stainless steel containers.

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Store at +15°C to +25°C (+59°F to +77°F).

SECTION 8. Exposure controls/personal protection

Exposure limit(s)
Contains no substances with occupational exposure limit values.

Engineering measures
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures
Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures
Immediately change contaminated clothing. Apply skin-protective barrier cream. Wash hands and face after working with substance.

Eye/face protection
Safety glasses

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protective equipment:
Flame retardant antistatic protective clothing

Respiratory protection
required when vapors/aerosols are generated.
Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

SECTION 9. Physical and chemical properties

Physical state liquid
Color colorless
Odor characteristic odor
Odor Threshold No information available.
pH No information available.
SECTION 10. Stability and reactivity

Reactivity
Vapor/air-mixtures are explosive at intense warming.

Chemical stability
The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions
Exothermic reaction with:
Strong oxidizing agents
Conditions to avoid
Heating.
A range from approx. 15 Kelvin below the flash point is to be rated as critical.

Incompatible materials
no information available

Hazardous decomposition products
in the event of fire: See section 5.

SECTION 11. Toxicological information
Information on toxicological effects

Likely route of exposure
Eye contact, Skin contact

Acute oral toxicity
LD50 rat: 303 mg/kg (IUCLID)

Acute dermal toxicity
LD50 rat: > 2,000 mg/kg
OECD Test Guideline 402

Skin irritation
rabbit
Result: slight irritation
OECD Test Guideline 404

Eye irritation
rabbit
Result: No eye irritation
OECD Test Guideline 405

Sensitization
Sensitization test (Magnusson and Kligman):
Result: positive
Method: OECD Test Guideline 406

May cause an allergic skin reaction.

Genotoxicity in vitro
Ames test
Result: negative
Method: OECD Test Guideline 471

Specific target organ systemic toxicity - single exposure
The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration hazard
Regarding the available data the classification criteria are not fulfilled.

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.

OSHA  No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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.

Further information
After absorption of toxic quantities:
cardiovascular disorders, Headache, Dizziness, Gastrointestinal disturbance
Further data:
Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity

Toxicity to fish
LC50 Leuciscus idus (Golden orfe): 9 mg/l; 48 h
OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates
EC50 Daphnia magna (Water flea): 0.38 mg/l; 48 h (External MSDS)

Toxicity to algae
IC50 algae: 0.41 mg/l
OECD Test Guideline 201

Toxicity to bacteria
EC50 Pseudomonas putida: 2.7 mg/l; 16 h
ISO 10712 (External MSDS)

Persistence and degradability

Biodegradability
22 %; 28 d
OECD Test Guideline 301D
Not readily biodegradable.

Theoretical oxygen demand (ThOD)
2,430 mg/g
(IUCLID)
Bioaccumulative potential
Partition coefficient: n-octanol/water
log Pow: 2.43
(IUCLID) Bioaccumulation is not expected (log Pow <1).

Mobility in soil
No information available.

Other adverse effects
Additional ecological information
Biological effects:
Forms toxic mixtures in water, dilution measures notwithstanding.
Further information on ecology
Discharge into the environment must be avoided.

SECTION 13. Disposal considerations
The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)
UN number UN 1993
Proper shipping name FLAMMABLE LIQUID, N.O.S. (2-ETHYL(HEXYL)-THIOGLYCOLATE)
Class 3
Packing group III
Environmentally hazardous --

Air transport (IATA)
UN number UN 1993
Proper shipping name FLAMMABLE LIQUID, N.O.S. (2-ETHYL(HEXYL)-THIOGLYCOLATE)
Class 3
Packing group III
Environmentally hazardous --
Special precautions for user no

Sea transport (IMDG)
UN number UN 1993
Proper shipping name FLAMMABLE LIQUID, N.O.S. (2-ETHYL(HEXYL)-THIOGLYCOLATE)
Class 3
Packing group III
Environmentally hazardous --
MATERIAL SAFETY DATA SHEET
according to the Global Harmonized System

Product number 840112
Product name 2-Ethylhexyl thioglycolate for synthesis

Special precautions for user yes
EmS F-E S-E

SECTION 15. Regulatory information

United States of America

Canada

WHMIS Classification
B3 Combustible Liquid
D1B Toxic Material Causing Immediate and Serious Toxic Effects
D2B Toxic Material Causing Other Toxic Effects
Combustible Liquid, Toxic by ingestion, Skin sensitizer
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Notification status
TSCA: On TSCA Inventory

DSL: All components of this product are on the Canadian DSL.

SECTION 16. Other information

Training advice
Provide adequate information, instruction and training for operators.

Full text of H-Statements referred to under sections 2 and 3.
H226 Flammable liquid and vapor.
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Key or legend to abbreviations and acronyms used in the safety data sheet
Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Date of issue: 02/04/2013

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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