

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 **Product identifiers**  
Product name : Ethyl (S)-2-(trifluoromethylsulfonyloxy)propionate  
CAS-No. : 84028-88-6

1.2 **Relevant identified uses of the substance or mixture and uses advised against**  
Identified uses : Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 **Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**  
Skin corrosion (Category 1B)

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**  
Causes burns.

2.2 **Label elements**

**Labelling according Regulation (EC) No 1272/2008 [CLP]**

Pictogram 

Signal word Danger

Hazard statement(s)  
H314 Causes severe skin burns and eye damage.

Precautionary statement(s)  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard Statements none

**According to European Directive 67/548/EEC as amended.**

Hazard symbol(s) 

R-phrases(s)  
R34 Causes burns.

S-phrases(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 where possible).

Caution - substance not yet tested completely.

2.3 **Other hazards** - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances**  
Formula : C6H9F3O5S  
Molecular Weight : 250,19 g/mol  
Component Concentration  
**Ethyl (S)-2-(trifluoromethylsulfonyloxy)propionate**  
CAS-No. 84028-88-6 -  
**Magnesium oxide**  
CAS-No. 1309-48-4 1%  
EC-No. 215-171-9

4. FIRST AID MEASURES

4.1 **Description of first aid measures**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 **Indication of immediate medical attention and special treatment needed**

no data available

5. FIRE-FIGHTING MEASURES

5.1 **Extinguishing media**

**Suitable extinguishing media**

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

5.2 **Special hazards arising from the substance or mixture**

Carbon oxides, Sulphur oxides, Hydrogen fluoride

5.3 **Precautions for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 **Further information**

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 **Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 **Reference to other sections**

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 **Precautions for safe handling**

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 **Conditions for safe storage, including any incompatibilities**

Store in cool place. 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.

Recommended storage temperature: -20 °C

Store under inert gas. Moisture sensitive. Exposure to moisture.

7.3 **Specific end uses**

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 **Control parameters**

**Components with workplace control parameters**

8.2 **Exposure controls**

**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal protective equipment**

**Eye/face protection**

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Information on basic physical and chemical properties**

a) Appearance Form: clear, liquid  
Colour: light brown  
b) Odour no data available  
c) Odour Threshold no data available  
d) pH no data available  
e) Melting/freezing point no data available  
f) Initial boiling point and boiling range 34 °C at 0,007 hPa  
g) Flash point 79 °C - closed cup  
h) Evaporation rate no data available  
i) Flammability (solid, gas) no data available  
j) Upper/lower flammability or explosive limits no data available  
k) Vapour pressure no data available  
l) Vapour density no data available  
m) Relative density 1,342 g/mL at 25 °C  
n) Water solubility no data available  
o) Partition coefficient: n-octanol/water no data available  
p) Autoignition temperature no data available  
q) Decomposition temperature no data available  
r) Viscosity no data available  
s) Explosive properties no data available  
t) Oxidizing properties no data available

9.2 **Other safety information**

no data available

10. STABILITY AND REACTIVITY

10.1 **Reactivity**

no data available

10.2 **Chemical stability**

no data available

Contains the following stabiliser(s):

Magnesium oxide (1 %)

10.3 **Possibility of hazardous reactions**

no data available

10.4 **Conditions to avoid**

Heat, flames and sparks.

10.5 **Incompatible materials**

Strong oxidizing agents

10.6 **Hazardous decomposition products**

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects**

**Acute toxicity**

no data available

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

**Inhalation** May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Ingestion** May be harmful if swallowed. Causes burns.

**Skin** May be harmful if absorbed through skin. Causes skin burns.

**Eyes** Causes eye burns.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional Information**

RTECS: Not available

12. ECOLOGICAL INFORMATION

12.1 **Toxicity**

no data available

12.2 **Persistence and degradability**

no data available

12.3 **Bioaccumulative potential**

no data available

12.4 **Mobility in soil**

no data available

12.5 **Results of PBT and vPvB assessment**

no data available

12.6 **Other adverse effects**

no data available

13. DISPOSAL CONSIDERATIONS

13.1 **Waste treatment methods**

**Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 **UN-Number**  
ADR/RID: 3265 IMDG: 3265 IATA: 3265

14.2 **UN proper shipping name**  
ADR/RID: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Ethyl (S)-2-(trifluoromethylsulfonyloxy)propionate)  
IMDG: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Ethyl (S)-2-(trifluoromethylsulfonyloxy)propionate)  
IATA: Corrosive liquid, acidic, organic, n.o.s. (Ethyl (S)-2-(trifluoromethylsulfonyloxy)propionate)

14.3 **Transport hazard class(es)**  
ADR/RID: 8 IMDG: 8 IATA: 8

14.4 **Packaging group**  
ADR/RID: III IMDG: III IATA: III

14.5 **Environmental hazards**  
ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 **Special precautions for users**  
no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

15.2 **Chemical Safety Assessment**

no data available

16. OTHER INFORMATION

**Further information**

For R&D use only. Not for drug, household or other uses.

**WARRANTY:**

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. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.



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