

According to Regulation (EC) No 1907/2006

5-Ethylthio-1(H)-tetrazole



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

1.1. Product identifier

Trade name

5-Ethylthio-1(H)-tetrazole

CAS number

89797-68-2

EC number

618-305-8

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

Relevant identified uses

Research and development.

Not suitable for use in

Not suitable for human consumption or veterinary purposes.

1.3. Details of the supplier of the safety data sheet

Supplier

Molekula Group

Street address

Molekula Ltd, Lingfield Way, Darlington,
DL1 4XX Darlington
United Kingdom

Telephone

+44 (0) 3302 000 333

Email

info@molekula.com

Web site

www.molekula.com

Contact person

Kevin Banks

Email address

+44 (0) 7769276927

1.4. Emergency telephone number

Poison center/Additional emergency number

0344 892 0111 - National Poisons Information Service (Newcastle Centre)

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classification

Skin irritation, hazard category 2

Eye irritation, hazard category 2

Specific Target Organ Toxicity — Single exposure, hazard category 3

Hazard statements

H315, H319, H335, H336

Supplemental hazard statements

EUH044

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Warning

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

Supplemental hazard statements

EUH044 Risk of explosion if heated under confinement.

Precautionary statements

P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

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

P302 + P352 IF ON SKIN: Wash with plenty of water/.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P312 Call a POISON CENTER/doctor if you feel unwell.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container to local regulations.

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2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-pharse M factor acute M factor chronic	Note
5-Ethylthio-1(H)-tetrazole	89797-68-2 618-305-8 - -	100%	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3	H315, H319, H335 - -	-

Molecular weight

130.17

Substance additional information

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel.

Inhalation

Move to fresh air if inhaled.

Get medical attention if any discomfort continues.

Remove person to fresh air and keep comfortable for breathing.

Maintain an open airway. Loosen any tight clothing, such as a collar, tie or belt.

When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Place unconscious person on the side in the recovery position and ensure breathing can take place.

Skin contact

Rinse skin with water.

If skin irritation or rash occurs: Get medical advice/attention.

Eye contact

Do not rub eye. Remove contact lenses if present. Rinse eyes with water.

If eye irritation persists: Get medical advice/attention.

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Ingestion

Rinse mouth.

Get medical advice/attention if you feel unwell.

Immediately give a couple of glasses of water or milk, provided the victim is fully conscious.

Stop if the affected person feels sick as vomiting may be dangerous.

Never give liquid to an unconscious person.

Place unconscious person on the side in the recovery position and ensure breathing can take place.

NOTE! Effects may be delayed. Keep affected person under observation.

Information for doctors

First aiders/ medical personnel need to protect themselves.

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

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation

May cause respiratory irritation. Difficulty in breathing. Coughing.

Skin contact

Prolonged contact may cause dryness of the skin. Redness.

Eye contact

May be slightly irritating to the eyes.

Ingestion

May cause discomfort if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. No special treatment requirement.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards: None.

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Harmful gases or vapours.

Carbon monoxide (CO). Carbon dioxide (CO₂).

Oxides of: Nitrogen.

Oxides of: Sulphur.

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5.3. Advice for firefighters

Special protective equipment for fire-fighters

Evacuate area. Avoid breathing gas, fume, vapours or spray. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Keep upwind. Ventilate closed spaces before entering them. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control. If risk of water pollution occurs, notify appropriate authorities.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Do not breathe vapours. For personal protection, see section 8. Avoid contact with skin and eyes. Avoid inhalation of dust. Provide adequate ventilation.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Collect spillage with shovel, broom or the like and reuse, if possible. Dispose of large amounts of spillage/waste according to agreement with local authorities.

6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions

Wear protective clothing, gloves, eye and face protection. Keep away from food, drink and animal feeding stuffs. Keep containers tightly closed. Risk of explosion if heated under confinement.

General hygiene

Remove contaminated clothing immediately and wash skin with soap and water. Remove contaminated clothing and laundry thoroughly before re-use. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Store in a dry place. Store in a closed container. Keep upright. Protect containers from damage. Store away from incompatible materials (see section 10). Recommended storage temperature: 2 to 8°C (35.6 to 46.4°F)

7.3. Specific end use(s)

No specific usage precautions noted.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits

No occupational exposure limit assigned.

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8.2. Exposure controls

Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye / face protection

Wear eye protection.

Hand protection

Wear protective gloves. Recommended gloves: Nitrile.

Glove Thickness: 0.11mm

Breakthrough time: 8 hours

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

Wash contaminated skin thoroughly after handling.

Other skin protection

Wash skin thoroughly after handling.

Respiratory protection

Provide adequate ventilation.

Environmental exposure controls

Avoid discharge into drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Solid

Colour

White / off-white.

Odour

No data available

Melting point / freezing point

72-80°C

Boiling point or initial boiling point and boiling range

No data available

Flammability

No data available

Lower and upper explosion limit

No data available

Flash point

No data available

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Auto-ignition temperature

No data available

Decomposition temperature

No data available

pH

No data available

Kinematic viscosity

No data available

Solubility

No data available

Partition coefficient n-octanol/water

No data available

Vapour pressure

No data available

Density and/or relative density

0.786

Relative vapour density

No data available

Particle characteristics

No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Risk of explosion if heated under confinement.

10.2. Chemical stability

Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidising agents.

10.4. Conditions to avoid

May explode when heated or when exposed to flames or sparks. Closed containers can burst violently when heated, due to excess pressure build-up.

10.5. Incompatible materials

Strong oxidising agents.

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10.6. Hazardous decomposition products

See section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Skin corrosion/irritation

Product / Substance name CAS / EC no.	Result	Species
5-Ethylthio-1(H)-tetrazole 89797-68-2 / 618-305-8	Corrosive.	reconstructed human epidermis (RhE)

Serious eye damage/irritation

Product / Substance name CAS / EC no.	Result	Species
5-Ethylthio-1(H)-tetrazole 89797-68-2 / 618-305-8	Causes serious eye damage.	Bovine cornea

STOT-single exposure

Product / Substance name CAS / EC no.	Exposure route	Result
5-Ethylthio-1(H)-tetrazole 89797-68-2 / 618-305-8	Inhalation.	May cause respiratory irritation.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

No data available

SECTION 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

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12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

14.1. UN number

3224

14.2. UN proper shipping name

ADR / RID / ADN proper shipping name

SELF-REACTIVE SOLID TYPE C

IMDG proper shipping name

SELF-REACTIVE SOLID TYPE C

IATA proper shipping name

Self-reactive solid type C

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14.3. Transport hazard class(es)

Label

ADR/RID/ADN



4.1

IMDG



4.1

IATA



4.1

ADR / RID Class

4.1

ADR / RID Classification code

SR1

IMDG Class

4.1

IATA Class

4.1

ADN Class

4.1

ADN Class Code

SR1

14.4. Packing group

Not applicable

14.5. Environmental hazards

IMDG EmS

F-J, S-G

14.6. Special precautions for user

Tunnel restriction code: D

Transport category: 1

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14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU regulations

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

National regulations

Directive: 2012/18/EU: SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PER-OXIDES

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Phrase meaning

Skin Irrit. 2 - Skin irritation, hazard category 2

Eye Irrit. 2 - Eye irritation, hazard category 2

STOT SE 3 - Specific Target Organ Toxicity — Single exposure, hazard category 3

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

EUH044 Risk of explosion if heated under confinement.