

# Material Safety Data Sheet

## SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product Identifier

Product Name: **5-(Ethylthio)-1H-tetrazole**  
CAS No. 89797-68-2  
Catalog Number: **CGPCR-1505**  
Chemical Name: 5-Ethyl Thio Tetrazole  
Synonym/Trade Name: ETT, 5-ETT, 5-TET, Ethylthio Tetrazole,  
5-(Ethylthio)-1H-tetrazole, (ETT Activation)  
Molecular Formula: C3H6N4S

1.2 Relevant identified users of the substance or mixture and uses advised against  
Recommended Use: Laboratory chemicals, Manufacture of substances

### 1.3 Manufacturer or supplier's

ChemGenes India Pvt. Ltd  
207 Regency Plaza,  
5-A Park road, Lucknow-226001  
Ph: +91-8687421036  
Email: info@chemgenesindia.com

## SECTION 2. Hazards Identification

### 2.1 Classification of the substance or mixture

Flammable solids	Category 2
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

### 2.2 Label elements

Pictograms or hazard symbols



Signal word

Hazard statements

Warning

H228-Flammable solid.

H315-Causes skin irritation.

H319-Causes serious eye irritation.

Precautionary statements

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

P240-Ground/bond container and receiving equipment.

P264-Wash hands and face thoroughly after handling.

P280-Wear protective gloves, eye protection.  
P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.  
P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

### 2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

## **SECTION 3. Composition, Information On Ingredients**

Component: 5-Ethyl thio Tetrazole  
CAS#: 89797-68-2  
EC # (EINECS): None Assigned  
Percentage: >99%  
M.W.: 130.17  
Chemical Formula: C<sub>3</sub>H<sub>6</sub>N<sub>4</sub>S

## **SECTION 4. First Aid Measures**

### 4.1 Description of first aid measures

Inhalation: Remove from exposure immediately. Use a bag valve mask or similar device to perform artificial respiration if needed. Get medical attention.

Skin Contact: Remove contaminated clothing, jewelry and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemicals remains (at least 15-20 minutes).Get medical attention immediately.

Eye Contact: Wash eyes immediately with large amounts of water (or normal saline), occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.

Ingestion: If vomiting occurs, keep head lower than hips to help prevent aspiration. Get medical attention immediately.

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

No data available

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

No data available

## **SECTION 5. Fire Fighting Measures**

### 5.1 Extinguishing Media:

Suitable extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

Unsuitable extinguishing media

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

Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NO<sub>x</sub>)

Sulfur oxides

Combustible.

Explosive decomposition possible on heating.

Avoid shock and friction.

In the event of decomposition: danger of explosion!

Risk of dust explosion.

Development of hazardous combustion gases or vapors' possible in the event of fire.

### 5.3 Advice for firefighters

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

### 5.4 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.

Flash Point: N/A

Flammability Class (OSHA): N/A

## **SECTION 6. Accidental Release Measures**

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

Advice for non-emergency personnel:

Avoid inhalation of dusts. Avoid substance contact.

Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

### 6.3 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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

### 6.4 Reference to other sections

For disposal see section 13.

## **SECTION 7. Handling & Storage**

Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in original container. Tightly closed and away from sources of ignition and heat. Observe national regulations.

Storage stability

Recommended storage temperature

2 - 8 °C

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

**SECTION 8. Exposure Controls, Personal Protection**

8.1 Control parameters

No data available

8.2 Exposure controls

Install a closed system or local exhaust. Also install safety shower and eye bath.

8.3 Respiratory protection:

Dust respirator. Follow local and national regulations.

8.4 Hand protection:

Protective gloves.

8.5 Eye protection:

Safety glasses. A face-shield, if the situation requires.

8.6 Skin and body protection:

Protective clothing. Protective boots, if the situation

**SECTION 9. Physical And Chemical Properties**

9.1 Information on basic physical and chemical properties

Physical state (20°C):

Solid

Form:

Crystal - Powder

Colour:

White - Very pale reddish yellow

Odour:

No data available

pH:

No data available

Melting point/freezing point:

72-88°C

Boiling point/range:

No data available

Flash point:

No data available

Evaporation rate

(Butyl Acetate=1):

No data available

Flammability(solid, gas):

No data available

Flammability or explosive limits:

Lower:

No data available

Upper:

No data available

Vapour pressure:

No data available.

Vapour density:

No data available

Relative density:

No data available

Solubility(ies):

[Water]

No data available

[Other solvents]

Soluble:

Methanol

Partition coefficient:

No data available

n-octanol/water:

Autoignition temperature: No data available

Decomposition temperature: No data available

Dynamic Viscosity: No data available

Kinematic viscosity: No data available

9.2 Other safety information

No data available

## **SECTION 10. Stability And Reactivity**

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under proper conditions.

10.3 Possibility of hazardous reactions

May explosively decompose on heating, shock, friction, etc.

10.4 Conditions to avoid

Heat, Spark, Open flame, Static discharge, Shock, Friction

10.5 Incompatible materials

Oxidizing agents

10.6 Hazardous decomposition products

Carbon dioxide, Carbon monoxide, Nitrogen oxides (NO<sub>x</sub>), Sulfur oxides

## **SECTION 11. Toxicological Information**

11.1 Information on toxicological effects

Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: 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

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

#### 11.2 Additional Information

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

### SECTION 12. Ecological Information

#### 12.1 Toxicity

Fish: No data available

Crustacea: No data available

Algae: No data available

#### 12.2 Persistence and degradability

No data available

#### 12.3 Bioaccumulative potential

No data available

#### 12.4 Mobility in soil

Log Pow: No data available

Soil adsorption (Koc): No data available

Henry's Law (PaM 3/mol): No data available

#### 12.5 Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

#### 12.6 Other adverse effects No data available

### SECTION 13. Disposal Considerations

#### 13.1 Waste treatment methods

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.

### SECTION 14. Transport Information

DOT (US)

UN Number: 3224

Class: 4.1

Packing group: II

Proper shipping name:

Self-reactive solid type C (5-(Ethylthio)-1H-tetrazole)

Poison Inhalation Hazard:

No

Marine pollutant :

None.

IMDG/IMO

UN Number: 3224

Class: 4.1

Packing group: II

Proper shipping name: Self-reactive solid type C (5-(Ethylthio)-1H-tetrazole)  
ADR Not regulated  
EMS-No: F-J, S-G

IATA

UN Number: 3224 Class: 4.1 Packing group: II  
Proper shipping name: Self-reactive solid type C (5-(Ethylthio)-1H-tetrazole)

14.5 Environmental hazards; No hazards identified  
14.6 Special precautions for user; No special precautions required  
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
IMDG/IMO Not applicable,  
packaged goods No classification assigned.

**SECTION 15. Regulatory Information**

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

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

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

: Not applicable

Other regulations

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

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

**SECTION 16. Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Chemgenes India Pvt. Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

-----End of MSDS-----