

# Material Safety Data Sheet



**1H- TETRAZOLE FOR DNA SYNTHESIS**  
(AMIDITE ACTIVATOR)

**VERSION : 02**  
**DATE OF ISSUE : 26-08-2019**  
**SUPERSEDES : 01**

**Product Code : 19385**

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## **1. Identification of the substance/mixture and of the company/undertaking**

### **1.1. Product identifier**

**Trade name :** 1H-TETRAZOLE FOR DNA SYNTHESIS

**Product code :** 19385

**Identification of the product :** 1H-TETRAZOLE

**CAS No :** 288-94-8

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

**Use :** Industrial. For professional use only.

### **1.3. Details of the supplier of the safety data sheet**

**Company identification :** MOLYCHEM

**Office:** 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.

**Email :** [info@molychem.net](mailto:info@molychem.net)

**Works:** Plot No. B/9, Badlapur M.I.D.C., OPP.Shobhavat Textile Co., Kulgaon, Badlapur (E), Dist.-Thane-421 503.

### **1.4. Emergency telephone number**

**Emergency number :** +91 22 4066 8111 (10:00am - 6:00 pm)

## **2. Hazards identification -DSD**

### **2.1. Classification of the substance or mixture**

**Classification EC 67/548 or EC 1999/45**

**Classification :** F; R11

T; R23

**Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)**

**Health hazards :** Acute toxicity, Oral - Category 3 - Danger (CLP : Acute Tox. 3) H301

Acute toxicity, dermal - Category 3 - Danger (CLP : Acute Tox. 3) H311

Acute toxicity, Inhalation - Category 3 - Danger (CLP : Acute Tox. 3) H331

**Physical hazards :** Flammable solids - Category 1 - Danger (CLP : Flam. Sol. 1) H228

### **2.2. Label elements**

**Labelling EC 67/548 or EC 1999/45**

**Symbol(s) :** T : Toxic



**R Phrase(s) :** R11 : Highly flammable.

R23 : Toxic by inhalation.

R24 : Toxic in contact with skin.

R25 : Toxic if swallowed.

**S Phrase(s) :** S16 : Keep away from sources of ignition - No smoking.

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## Labelling Regulation EC 1272/2008 (CLP)

### Hazard pictograms



**Signal words :** Danger

**Hazard statements :** H228 : Flammable solid.

H301 : Toxic if swallowed.

H311 : Toxic in contact with skin.

H331 : Toxic if inhaled.

### Precautionary statements

• **Prevention** : P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical, ventilating, lighting, ..., equipment.

P210: Keep away from heat, sparks, open flames or hot surfaces. – No smoking.

P280: Wear protective gloves, protective clothing, eye protection, face protection.

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

P261: Avoid breathing dust, fume, gas, mist, vapours, spray.

P264: Wash thoroughly after handling.

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

• **Response** : P301+P310: IF SWALLOWED : Immediately call a POISON CENTER or doctor.

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

P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

P363: Wash contaminated clothing before reuse.

P361: Remove immediately all contaminated clothing.

P370+P378: In case of fire: Use for extinction.

• **Storage** : P403+P233: Store in well-ventilated place. Keep container tightly closed.

P405: Store locked up.

• **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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### 2.3. Other hazards

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**Other hazards :** The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

### **3. Composition/information on ingredients**

**Substance / Preparation :** 1H-TETRAZOLE

CAS No :288-94-8

Substance.

Contains no other components or impurities which will influence the classification of the product.

### **4. First aid measures**

#### **4.1. Description of first aid measures**

**Inhalation :** Assure fresh air breathing. Allow the victim to rest. Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Remove to fresh air and keep at rest in a position comfortable for breathing.

**Skin contact :** Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse. Remove/ Take off immediately all contaminated clothing. Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor. Specific treatment (see on this label).

**Eye contact :** Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

**Ingestion :** Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Rinse mouth. Do NOT induce vomiting.

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

**Symptoms relating to use :** Repeated exposure to this material can result in absorption through skin causing significant health hazard. Danger of serious damage to health by prolonged exposure through inhalation.

Swallowing a small quantity of this material will result in serious health hazard.

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

**General information :** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

### **5. Fire-fighting measures**

#### **5.1. Extinguishing media**

**Suitable extinguishing media :** Foam. Dry powder. Carbon dioxide. Water spray. Sand.

**Unsuitable extinguishing media :** Do not use a heavy water stream.

**Surrounding fires :** Use water spray or fog for cooling exposed containers.

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

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**Flammable class :** Flammable solid.

**Hazardous combustion products :** Under fire conditions, hazardous fumes will be present.

## **5.3. Advice for fire-fighters**

**Protection against fire :** Do not enter fire area without proper protective equipment, including respirator protection.

**Special procedures :** Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

## **6. Accidental release measures**

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

**For emergency responders :** Equip cleanup crew with proper protection. Ventilate area.

**Technical measures :** Use special care to avoid static electric charges.

**Special precautions :** Remove ignition sources. No naked lights. No smoking.

**For non-emergency personnel :** Evacuate unnecessary personnel.

### **6.2. Environmental precautions**

**Environmental precautions :** Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

### **6.3. Methods and material for containment and cleaning up**

**Clean up methods :** On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

### **6.4. Reference to other sections**

See section 8. Exposure controls/personal protection

## **7. Handling and storage**

### **7.1. Precautions for safe handling**

**Handling :** Handle empty containers with care because residual vapours are flammable. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid breathing dust, fume, gas, mist, vapours, spray.

**Technical protective measures :** Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, lighting, ..., equipment.

**Special precautions :** No naked lights. No smoking.


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

**Storage :** Keep only in the original container in a cool, well ventilated place. Keep in fireproof place. Keep container tightly closed. Ground/bond container and receiving equipment.

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**Storage - away from :** Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.

### **7.3. Specific end use(s)**

**Specific end use(s) :** None.

## **8. Exposure controls/personal protection**

### **8.1. Exposure controls**

**Personal protection :** Avoid all unnecessary exposure.

- **Respiratory protection :** In case of insufficient ventilation, wear suitable respiratory equipment.
- **Hand protection :** Wear protective gloves.
- **Eye protection :** Chemical goggles or safety glasses.
- **Others :** When using, do not eat, drink or smoke.

### **8.2. Control parameters**

**Occupational Exposure Limits :** No data available.

## **9. Physical and chemical properties**

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

**Physical state at 20 °C :** Solid.

**Odour threshold :** No data available.

**pH value :** Not applicable.

**Melting point [°C] :** 157 - 158°C

**Decomposition point [°C] :** 220°C

**Critical temperature [°C] :** N/A

**Auto-ignition temperature [°C] :** N/A

**Flammability (solid, gas) :** N/A

Flammable solid.

**Flash point [°C] :** N/A

**Boiling point [°C] :** N/A

**Initial boiling point [°C] :** N/A

**Final boiling point [°C] :** N/A

**Evaporation rate :** N/A

**Vapour pressure [20°C] :** N/A

**Vapour pressure mm/Hg :** N/A

**Vapour density :** N/A

**Density [g/cm<sup>3</sup>] :** N/A

**Relative density, gas (air=1) :** N/A

**Relative density, liquid (water=1) :** N/A

**Solubility in water [% weight] :** Soluble in water

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**Solubility in water : N/A**

**Log Pow octanol / water at 20°C : No data available.**

**Solubility : N/A**

**Viscosity at 40°C [mm<sup>2</sup>/s] : N/A**

## **9.2. Other information**

**Explosive properties : N/A**

**Explosion limits - upper [%] : N/A**

**Explosion limits - lower [%] : N/A**

**Oxidising properties : No data available.**

## **10. Stability and reactivity**

### **10.1. Reactivity**

**Reactivity : Not established.**

### **10.2. Chemical stability**

**Chemical stability : Stable under recommended storage conditions.**

### **10.3. Possibility of hazardous reactions**

**Hazardous reactions : Not established.**

### **10.4. Conditions to avoid**

**Conditions to avoid : Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.**

### **10.5. Incompatible materials**

**Materials to avoid : Strong acids. Strong bases.**

### **10.6. Hazardous decomposition products**

**Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide. May release flammable gases.**

## **11. Toxicological information**

### **11.1. Information on toxicological effects**

#### **Acute toxicity**

- **Inhalation** : Toxic if inhaled.
- **Dermal** : Toxic in contact with skin.
- **Ingestion** : Toxic if swallowed.

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

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

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

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

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

**Toxic for reproduction** : Based on available data, the classification criteria are not met.

**STOT-single exposure** : Based on available data, the classification criteria are not met.

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**STOT-repeated exposure** : Based on available data, the classification criteria are not met.

**Aspiration hazard** : Based on available data, the classification criteria are not met.

## **12. Ecological information**

### **12.1. Toxicity**

**Toxicity information** : Not established.

### **12.2. Persistence - degradability**

**Persistence - degradability** : Biodegradable.

### **12.3. Bioaccumulative potential**

**Bioaccumulative potential** : Not established.

### **12.4. Mobility in soil**

**Mobility in soil** : Not established.

### **12.5. Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

### **12.6. Other adverse effects**

**Environmental precautions** : Avoid release to the environment.

## **13. Disposal considerations**

### **13.1. Waste treatment methods**

**General** : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**Special precautions** : Hazardous waste due to toxicity.

Handle empty containers with care because residual vapours are flammable.

## **14. Transport information**

### **14.1. Land transport (ADR-RID)**

**Proper shipping name** : 1H-TETRAZOLE

**UN N°** : 0504

**ADR - Class** : 1

**Labelling - Transport** : 1 : Explosive substances or articles, Division 1.1, Compatibility Group E

**ADR - Classification code** : 1.1D

**ADR - Packing instructions** : P112C


**ADR - Limited Quantity** : 0

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**ADR - Tunnel code :** B1000C : Carriage where the total net explosive mass per transport unit -exceeds 1000kg: Passage forbidden through tunnels of category B, C, D and E. - does no exceed 1000kg: Passage forbidden through tunnels of category C, D and E.

#### **14.2. Sea transport (IMDG) [English only]**

**Proper shipping name :** 1H-TETRAZOLE

**UN N° :** 0504

**IMO-IMDG - Class or division :** 1 : Explosive substances or articles, Division 1.1, Compatibility Group E

**IMO- IMDG - Packing instructions :** P112(c)

**IMO-IMDG - Limited quantities :** None

**IMO-IMDG - Marine pollution :** No

**EMS-Nr :** F-B S-Y

#### **14.3. Air transport (ICAO-IATA) [English only]**

**Proper shipping name :** 1H-TETRAZOLE

**UN N° :** 0504

**IATA - Class or division :** 1 : Explosive substances or articles, Division 1.1, Compatibility Group E

**IATA - Passenger and Cargo Aircraft :** NOT ALLOWED

**IATA - Cargo only :** NOT ALLOWED

**ERG-Nr :** 1L

### **15. Regulatory information**

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

**Safety, health and environmental :** Ensure all national/local regulations are observed. regulations/legislation specific for the substance or mixture

**REACH Restrictions - Annex XVII :** The components of this product are not subject to restrictions.

**REACH Authorisation - Annex XIV :** The components of this product are not subject to authorization.

#### **15.2. Chemical Safety Assessment**

**Chemical Safety Assessment :** It has not been carried out.

### **16. Other information**

**Abbreviations and acronyms :** PBT: persistent, bioaccumulative and toxic.

vPvB: very persistent and very bioaccumulative


**Sources of key data used :** REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives

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67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

**Further information :** None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008 **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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