

## **MATERIAL SAFETY DATA SHEET**

### **1H-TETRAZOLE (For DNA Synthesis) MSDS CAS: 288-94-8**

#### **Section 1: Chemical Product and Company Identification**

##### **Section 1: Chemical Product**

**Product Name:** 1H-TETRAZOLE

**CAS#:** 288-94-8

**Synonym:** Not available.

**Chemical Name:** Not available.

**Chemical Formula:** Not available.

**Brand:** OXFORD

##### **Details Of The Supplier Of The Safety Data Sheet:**

**Company identification:**      **OXFORD LAB FINE CHEM LLP**  
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Navghar, Vasai (East). Palghar - 401 210.  
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#### **Section 2: Composition and Information on Ingredients**

##### **Composition:**

| Name         | CAS #    | % by Weight |
|--------------|----------|-------------|
| 1H-TETRAZOLE | 288-94-8 | 100         |

**Toxicological Data on Ingredients:** Not available.

## Section 3: Hazards Identification

### 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

### 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.

### Labelling Regulation EC 1272/2008 (CLP)

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.

## Section 3: Hazards Identification (Continued)

### **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. 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. 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.**

### **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.**

## Section 4: First Aid Measures

### **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.**

### **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.**

## Section 4: First Aid Measures (Continued)

### 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).

## Section 5: Fire and Explosion Data

### 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.

### Special hazards arising from the substance or mixture

Flammable class: Flammable solid.

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

### Advice for fire-fighters

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

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

## Section 6: Accidental Release Measures

### 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.

### Environmental precautions

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

## Section 6: Accidental Release Measures (Continued)

### 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.

## Section 7: Handling and Storage

### 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.

### 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.

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

Specific end use(s): None.

## Section 8: Exposure Controls/Personal Protection

### Exposure controls

#### Personal protection:

#### Respiratory protection:

#### Hand protection:

#### Eye protection:

#### Others:

Avoid all unnecessary exposure.

In case of insufficient ventilation, wear suitable respiratory equipment.

Wear protective gloves.

Chemical goggles or safety glasses.

When using, do not eat, drink or smoke.

## Section 8: Exposure Controls/Personal Protection (Continued)

### Control parameters

Occupational Exposure Limits: No data available.

## Section 9: Physical and Chemical Properties

### Information on basic physical and chemical properties

|                                         |                      |
|-----------------------------------------|----------------------|
| Physical state at 20 °C:                | Solid.               |
| Colour:                                 | White                |
| Odour:                                  | N/A                  |
| 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. |
| 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     |
| 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                  |

### Other information

|                               |                    |
|-------------------------------|--------------------|
| Explosive properties:         | N/A                |
| Explosion limits - upper [%]: | N/A                |
| Explosion limits - lower [%]: | N/A                |
| Oxidising properties:         | No data available. |

## Section 10: Stability and Reactivity Data

**Reactivity:** Not established.

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

**Hazardous reactions:** Not established.

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

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

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

## Section 11: Toxicological Information

### **Information on toxicological effects**

#### **Acute toxicity:**

|                                |                                                                   |
|--------------------------------|-------------------------------------------------------------------|
| <b>Inhalation:</b>             | Toxic if inhaled.                                                 |
| <b>Dermal:</b>                 | Toxic in contact with skin.                                       |
| <b>Ingestion:</b>              | Toxic if swallowed.                                               |
| <b>Corrosion:</b>              | Based on available data, the classification criteria are not met. |
| <b>Irritation:</b>             | Based on available data, the classification criteria are not met. |
| <b>Sensitization:</b>          | Based on available data, the classification criteria are not met. |
| <b>Mutagenicity:</b>           | Based on available data, the classification criteria are not met. |
| <b>Carcinogenicity:</b>        | Based on available data, the classification criteria are not met. |
| <b>Toxic for reproduction:</b> | Based on available data, the classification criteria are not met. |
| <b>STOT-single exposure:</b>   | Based on available data, the classification criteria are not met. |
| <b>STOT-repeated exposure:</b> | Based on available data, the classification criteria are not met. |
| <b>Aspiration hazard:</b>      | Based on available data, the classification criteria are not met. |



## Section 12: Ecological Information

**Toxicity information:** Not established.

**Persistence - degradability:** Biodegradable.

**Bioaccumulative potential:** Not established.

**Mobility in soil:** Not established.

**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.

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

## Section 13: Disposal Considerations

**Waste Disposal:**

**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.

## Section 14: Transport Information

**Land transport (ADR-RID)**

Proper shipping name: 1H-TETRAZOLE

UN N°: 0504

H.I. nr: -

ADR - Class: 1

ADR - Packing instructions: P112C



## Section 14: Transport Information

### 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)

### 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

## Section 15: Other Regulatory Information

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

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.

Chemical Safety Assessment: It has not been carried out.

## Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

## ***Disclaimer:***

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