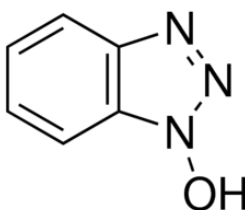


MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product form : Substance
:
CAS-No. : 2592-95-2
Product code : 04115
Formula : C₆H₅N₃O
Chemical structure :



Synonyms : HOBT

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.
107 Wode House Road, Jehangir Villa, Colaba
400005 Mumbai - INDIA
T +91 22 6663 6663 - F +91 22 6663 6699
info@lobachemie.com - www.lobachemie.com

1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable solids, H228
Category 2

Full text of H statements : see section 16

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Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11

R1

R44

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS02

Signal word (CLP) : Warning

Hazard statements (CLP) : H228 - Flammable solid.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

| Name | Product identifier | % |
|---|---------------------|-----|
| 1-HYDROXYBENZOTRIAZOLE ANHYDROUS EXTRA PURE | (CAS-No.) 2592-95-2 | 100 |

Full text of R- and H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of water/.... Wash contaminated clothing before reuse.

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- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Get medical advice/attention.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Carbon dioxide. Foam.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Flammable solid.
- Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. No open flames. No smoking. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe vapours. Provide good ventilation in process area to prevent formation of vapour. Keep away from sources of ignition - No smoking.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep in fireproof place. Keep container tightly closed.
- Incompatible materials : Heat sources.

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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

| | |
|--------------------------|--|
| Hand protection | : Protective gloves |
| Eye protection | : Chemical goggles or safety glasses |
| Skin and body protection | : Wear suitable protective clothing |
| Respiratory protection | : [In case of inadequate ventilation] wear respiratory protection. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|-----------------------------------|
| Physical state | : Solid |
| Molecular mass | : 135.12 g/mol |
| Colour | : White to off white crystalline. |
| Odour | : No data available |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : 156 - 158 °C |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : No data available |
| Log Pow | : No data available |
| Viscosity, kinematic | : No data available |

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| | |
|----------------------|---------------------|
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Open flame. Heat. Sparks.

10.5. Incompatible materials

Oxidizing agent. Acids.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|-----------------------------------|------------------|
| Acute toxicity | : Not classified |
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |

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SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

No additional information available

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

| | |
|---------------|--------|
| UN-No. (ADR) | : 3380 |
| UN-No. (IMDG) | : 3380 |
| UN-No. (IATA) | : 3380 |
| UN-No. (ADN) | : 3380 |
| UN-No. (RID) | : 3380 |

14.2. UN proper shipping name

| | |
|---------------------------------------|--|
| Proper Shipping Name (ADR) | : DESENSITIZED EXPLOSIVE, SOLID, N.O.S. |
| Proper Shipping Name (IMDG) | : DESENSITIZED EXPLOSIVE, SOLID, N.O.S. |
| Proper Shipping Name (IATA) | : Desensitized explosive, solid, n.o.s. |
| Proper Shipping Name (ADN) | : DESENSITIZED EXPLOSIVE, SOLID, N.O.S. |
| Proper Shipping Name (RID) | : DESENSITIZED EXPLOSIVE, SOLID, N.O.S. |
| Transport document description (ADR) | : UN 3380 DESENSITIZED EXPLOSIVE, SOLID, N.O.S., 4.1, I, (B) |
| Transport document description (IMDG) | : UN 3380 DESENSITIZED EXPLOSIVE, SOLID, N.O.S., 4.1, I |
| Transport document description (IATA) | : UN 3380 Desensitized explosive, solid, n.o.s., 4.1 |
| Transport document description (ADN) | : UN 3380 DESENSITIZED EXPLOSIVE, SOLID, N.O.S., 4.1, I |
| Transport document description (RID) | : UN 3380 DESENSITIZED EXPLOSIVE, SOLID, N.O.S., 4.1, I |

14.3. Transport hazard class(es)

ADR

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Transport hazard class(es) (ADR) : 4.1

Danger labels (ADR) : 4.1



IMDG

Transport hazard class(es) (IMDG) : 4.1

Danger labels (IMDG) : 4.1



IATA

Transport hazard class(es) (IATA) : 4.1

ADN

Transport hazard class(es) (ADN) : 4.1

Danger labels (ADN) : 4.1



RID

Transport hazard class(es) (RID) : 4.1

Danger labels (RID) : 4.1



14.4. Packing group

Packing group (ADR) : I

Packing group (IMDG) : I

Packing group (IATA) : Not applicable

Packing group (ADN) : I

Packing group (RID) : I

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

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14.6. Special precautions for user

- Overland transport

| | |
|---|------------|
| Classification code (ADR) | : D |
| Special provisions (ADR) | : 274, 311 |
| Limited quantities (ADR) | : 0 |
| Excepted quantities (ADR) | : E0 |
| Packing instructions (ADR) | : P099 |
| Mixed packing provisions (ADR) | : MP2 |
| Transport category (ADR) | : 1 |
| Special provisions for carriage - Operation (ADR) | : S14 |
| Tunnel restriction code (ADR) | : B |
| EAC code | : 1W |

- Transport by sea

| | |
|------------------------------------|---|
| Special provisions (IMDG) | : 274, 311 |
| Packing instructions (IMDG) | : P099 |
| EmS-No. (Fire) | : F-B |
| EmS-No. (Spillage) | : S-J |
| Stowage category (IMDG) | : D |
| Segregation (IMDG) | : SG7, SG30 |
| Properties and observations (IMDG) | : Desensitized explosive. Explosive and sensitive to friction in the dry state. May form extremely sensitive compounds with heavy metals and their salts. |

- Air transport

| | |
|--|-------------|
| PCA Limited quantities (IATA) | : Forbidden |
| PCA limited quantity max net quantity (IATA) | : Forbidden |
| PCA packing instructions (IATA) | : Forbidden |
| PCA max net quantity (IATA) | : Forbidden |
| CAO packing instructions (IATA) | : Forbidden |
| CAO max net quantity (IATA) | : Forbidden |
| Special provisions (IATA) | : A133 |
| ERG code (IATA) | : 3E |

- Inland waterway transport

| | |
|-----------------------------------|------------|
| Classification code (ADN) | : D |
| Special provisions (ADN) | : 274, 311 |
| Limited quantities (ADN) | : 0 |
| Excepted quantities (ADN) | : E0 |
| Equipment required (ADN) | : PP |
| Number of blue cones/lights (ADN) | : 1 |

- Rail transport

| | |
|--|------------|
| Classification code (RID) | : D |
| Special provisions (RID) | : 274, 311 |
| Limited quantities (RID) | : 0 |
| Excepted quantities (RID) | : E0 |
| Packing instructions (RID) | : P099 |
| Mixed packing provisions (RID) | : MP2 |
| Transport category (RID) | : 1 |
| Special provisions for carriage – Packages (RID) | : W1 |
| Hazard identification number (RID) | : 40 |

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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

1-HYDROXYBENZOTRIAZOLE ANHYDROUS EXTRA PURE is not on the REACH Candidate List

1-HYDROXYBENZOTRIAZOLE ANHYDROUS EXTRA PURE is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

| | |
|--------------|---|
| Flam. Sol. 2 | Flammable solids, Category 2 |
| H228 | Flammable solid. |
| R1 | Dependent on the composition |
| R11 | Highly flammable |
| R44 | Risk of explosion if heated under confinement |
| F | Highly flammable |

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Safety Data Sheet

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product