



## MATERIAL SAFETY DATA SHEET SDS/MSDS

---

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

#### 1.1 Product identifiers

Product name : 1-Hydroxybenzotriazole Hydrate 97%  
Extrapure

Product Code : B-01409

Brand : Bio-Chem

CAS-No. : 2592-95-2

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

Identified uses : Laboratory chemicals, Manufacture of substances

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

Company : Bio-Chem Chemicals  
5455 Nicholson Road, Science Market  
Ambala Cantt, 133001 - Haryana  
+91 82952 41953  
info@biofinechemical.com - www.biofinechemical.com

#### 1.4 Emergency telephone

Emergency Phone # : +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

---

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Desensitized explosives,  
(Category 2) H207: Fire or projection hazard; increased risk of explosion if desensitizing agent is reduced.

Eye irritation, (Category 2) H319: Causes serious eye irritation.

Long-term (chronic) aquatic hazard, (Category 3)

H412: Harmful to aquatic life with long lasting effects.

## 2.2 Label elements

### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal Word

Danger

Hazard Statements

H207

Fire or projection hazard; increased risk of explosion if desensitizing agent is reduced.

H319

Causes serious eye irritation.

H412

Harmful to aquatic life with long lasting effects.

Precautionary Statements

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P212

Avoid heating under confinement or reduction of the desensitizing agent.

P230

Keep wetted with water.

P233

Keep container tightly closed.

P280

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

P370 + P380 + P375

In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

P501

Dispose of contents/ container to an approved waste disposal plant.

Supplemental Hazard Statements

none

### Reduced Labeling (<= 125 ml)

Pictogram



Signal Word

Danger

Hazard Statements

H412

Harmful to aquatic life with long lasting effects.

H207

Fire or projection hazard; increased risk of explosion if desensitizing agent is reduced.

Precautionary Statements

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P212

Avoid heating under confinement or reduction of the desensitizing agent.

P230

Keep wetted with water.

P233

Keep container tightly closed.

P280

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

P370 + P380 + P375	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
P501	Dispose of contents/ container to an approved waste disposal plant.
Supplemental Hazard Statements	none

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Desensitized explosive

---

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	: HOBt Hydrate
Formula	: C <sub>6</sub> H <sub>5</sub> N <sub>3</sub> O.xH <sub>2</sub> O
Molecular weight	: 135,12 g/mol
CAS-No.	: 2592-95-2
EC-No.	: 219-989-7
Index-No.	: 613-285-00-7

Component		Classification	Concentration
<b>1-hydroxybenzotriazole, monohydrate</b>			
CAS-No.	2592-95-2	Desen. Expl. 2; Eye Irrit. 2; Aquatic Chronic 3; H207, H319, H412	<= 100 %
EC-No.	219-989-7		
Index-No.	613-285-00-7		

For the full text of the H-Statements mentioned in this Section, see Section 16.

---

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air.

**In case of skin contact**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

**In case of eye contact**

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

**If swallowed**

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

---

**SECTION 5: Firefighting 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.

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

Carbon oxides

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

Combustible.

In the event of decomposition: danger of explosion!

Forms explosive mixtures with air on intense heating.

Vapors are heavier than air and may spread along floors.

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

Avoid shock and friction.

Vapors are heavier than air and may spread along floors.

In the event of decomposition: danger of explosion!

Forms explosive mixtures with air on intense heating.

**5.3 Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

**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.

---

## **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.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

explosible after loss of solvent content. 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 and storage**

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

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition.

#### **Hygiene measures**

Change contaminated clothing. Wash hands after working with substance.

For precautions see section 2.2.

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

#### **Storage conditions**

Tightly closed and away from sources of ignition and heat. Observe national regulations.

Dry residue is explosive.

#### **Storage class**

Storage class (TRGS 510): 4.1A: Other explosive hazardous materials

### **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**

#### **Ingredients with workplace control parameters**

### **8.2 Exposure controls**

#### **Personal protective equipment**

##### **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

##### **Body Protection**

Flame retardant antistatic protective clothing.

##### **Respiratory protection**

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

##### **Control of environmental exposure**

Do not let product enter drains.

---

## **SECTION 9: Physical and chemical properties**

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

- |   |                                   |
|---|-----------------------------------|
| a) Physical state                               | solid                             |
| b) Color  | No data available                 |
| c) Odor   | No data available                 |
| d) Melting point/freezing point                 | Melting point/range: 155 - 158 °C |
| e) Initial boiling point and boiling range      | No data available                 |
| f) Flammability (solid, gas)                    | No data available                 |
| g) Upper/lower flammability or explosive limits | No data available                 |
| h) Flash point                                  | 157 °C                            |
| i) Autoignition temperature                     | No data available                 |

j)	Decomposition temperature	No data available
k)	pH	No data available
l)	Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m)	Water solubility	soluble
n)	Partition coefficient: n-octanol/water	No data available
o)	Vapor pressure	No data available
p)	Density	No data available
	Relative density	No data available
q)	Relative vapor density	No data available
r)	Particle characteristics	No data available
s)	Explosive properties	Not classified as explosive.
t)	Oxidizing properties	none

## 9.2 Other safety information

No data available

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

Strong acids

nitrates

Copper

### 10.4 Conditions to avoid

Strong heating.

### 10.5 Incompatible materials

No data available

## 10.6 Hazardous decomposition products

In the event of fire: see section 5

---

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - female - > 2.000 mg/kg

(OECD Test Guideline 423)

Remarks: The value is given in analogy to the following substances: 1-hydroxybenzotriazole

Inhalation: No data available

LD50 Dermal - Rat - male and female - > 2.000 mg/kg

(OECD Test Guideline 402)

Remarks: The value is given in analogy to the following substances: 1-hydroxybenzotriazole

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

Eyes - in vitro test

Result: Causes serious eye irritation. - 6 h

(OECD Test Guideline 492)

Remarks: The value is given in analogy to the following substances: 1-hydroxybenzotriazole

#### 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

No data available

#### Specific target organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available

### 11.2 Additional Information

#### Endocrine disrupting properties

##### Product:

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article



57(f) or Commission Delegated regulation (EU)  
2017/2100 or Commission Regulation (EU)  
2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - Rat - male - Oral - 28 d - NOAEL (No observed adverse effect level) - 250 mg/kg

Remarks: The value is given in analogy to the following substances: 1-hydroxybenzotriazole

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

---

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Toxicity to fish	static test LC50 - Danio rerio (zebra fish) - > 100 mg/l - 96 h (OECD Test Guideline 203) Remarks: The value is given in analogy to the following substances: 1-hydroxybenzotriazole
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 75,5 mg/l - 48 h (OECD Test Guideline 202) Remarks: The value is given in analogy to the following substances: 1-hydroxybenzotriazole
Toxicity to algae	static test ErC50 - Desmodesmus subspicatus (green algae) - 87,3 mg/l - 72 h (OECD Test Guideline 201) Remarks: The value is given in analogy to the following substances: 1-hydroxybenzotriazole

### **12.2 Persistence and degradability**

Biodegradability	Result: 63,2 % - Inherently biodegradable. (OECD Test Guideline 301D) Remarks: The value is given in analogy to the following substances: 1-hydroxybenzotriazole
------------------	---

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **12.6 Endocrine disrupting properties**

**Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## 12.7 Other adverse effects

No data available

---

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Explosive materials: transport and disposal only in sufficiently desensitised condition! See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

---

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 3474

IMDG: 3474

IATA: 3474

### 14.2 UN proper shipping name

ADR/RID: 1-HYDROXYBENZOTRIAZOLE-MONOHYDRATE

IMDG: 1-HYDROXYBENZOTRIAZOLE MONOHYDRATE

IATA: 1-Hydroxybenzotriazole monohydrate

### 14.3 Transport hazard class(es)

ADR/RID: 4.1

IMDG: 4.1

IATA: 4.1

### 14.4 Packaging group

ADR/RID: I

IMDG: I

IATA: I

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### 14.6 Special precautions for user

Tunnel restriction code : (B)

Further information : No data available

---

## 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.

**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**

**Full text of H-Statements**

H207	Fire or projection hazard; increased risk of explosion if desensitizing agent is reduced.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.