

Material Safety Data Sheet

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Version 1.3

According to 91/155/EEC

Classified as Hazardous according to the criteria of EU Annex 1 and NOHSC.

1 - Product and Company Information

Product Name	1-HYDROXYBENZOTRIAZOLE, CONTAINS <5% WAT ER
Product Number	362441
Company	Sigma-Aldrich Pty. Ltd. 12 Anella Avenue Castle Hill NSW 2154 Australia
Technical Phone #	+61 2 9841 0555 (1800 800 097)
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2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
1-HYDROXYBENZOTRIAZOLE	2592-95-2	219-989-7	None
Formula	C6H5N3O		
Molecular Weight	135.13 AMU		
Synonyms	Benzazimidol hydrate * N-Hydroxybenzotriazole hydrate * 1-Hydroxy-1H-benzotriazole hydrate * 1-Hydroxybenzotriazole hydrate		

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Heating may cause an explosion. Highly flammable.

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is

conscious. Call a physician.

5 - Fire Fighting Measures

EXPLOSION DATA

Sensitivity to Mechanical Impact: Test results indicate that this compound is not considered sensitive to friction as defined by DOT/UN standards.

EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam. Water spray.

SPECIAL RISKS

Specific Hazard(s): Explosive. Emits toxic fumes under fire conditions.

Explosion Hazards: May explode or cause fire.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SPECIFIC METHOD(S) OF FIRE FIGHTING

Use water spray to cool fire-exposed containers.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Avoid prolonged or repeated exposure. Do not breathe dust. Avoid contact with eyes, skin, and clothing. Container should be opened only by a technically qualified person.

STORAGE

Conditions of Storage: Keep tightly closed. Store in a cool dry place. Store in the dark.

Unsuitable: Do not heat above m.p.

SPECIAL REQUIREMENTS: May explode when heated. Heat sensitive.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Remove and wash contaminated

clothing promptly.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles. Use safety shield.

Special Protective Measures: Faceshield (8-inch minimum).

9 - Physical and Chemical Properties

Appearance	Color: Very faintly yellow Form: Fine crystals	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	156 °C	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	N/A	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.		Heat of Decomposition: 209 °C SADT: 806.4 j/g
Solvent Content	N/A	
Water Content	12 %	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	Solvent: Clear 0.1 g/ml DMF	

10 - Stability and Reactivity

STABILITY

Stable: Unstable.

Conditions of Instability: Do not heat above: 95°C

Conditions to Avoid: Light. Do not heat above m.p. Explodes when heated.

Materials to Avoid: Strong oxidizing agents, Strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

HAZARDOUS EXOTHERMIC REACTIONS

Conditions of Hazardous Exothermic Reactions: Exothermic decomposition commences above 180°C.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: May occur

11 - Toxicological Information

RTECS NUMBER: DM1288000

IRRITATION DATA

Eyes
Rabbit
100 mg
Remarks: Mild irritation effect

SIGNS AND SYMPTOMS OF EXPOSURE

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

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

UN#: 3224
Class: 4.1
Proper Shipping Name: Self-reactive solid type C

IMDG

UN#: 3224
Class: 4.1
PG: I
Proper Shipping Name: Self-reactive solid type C
Marine Pollutant: No
Severe Marine Pollutant: No

IATA

UN#: 3224
Class: 4.1
Proper Shipping Name: Self-reactive solid type C

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: F
Highly Flammable.
R-PHRASES: 5-11
Heating may cause an explosion. Highly flammable.
S-PHRASES: 15-16
Keep away from heat. Keep away from sources of ignition - no

smoking.

SWITZERLAND

SWISS POISON CLASS: 3

16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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