

Benzotriazole, (1,2,3-) Powder, Reagent

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Benzotriazole, (1,2,3-), Powder, Reagent

Synonyms/Generic Names: 1H-Benzotriazole, 1,2,3-Benzotriazole, btaH

Product Number: 0832

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information Call: 920-623-2140 (Monday-Friday 8:00-4:30)

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Harmful by ingestion, Harmful by skin absorption, Irritant

Target Organs: None Known

Signal Words: Warning

Pictograms:



GHS Classification:

Acute toxicity, Inhalation	Category 5
Acute toxicity, Dermal	Category 4
Acute toxicity, Oral	Category 4
Eye irritation	Category 2A
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

GHS Label Elements, including precautionary statements:

Hazard Statements:

H302+H312	Harmful if swallowed or in contact with skin.
H319	Causes serious eye irritation.
H333	May be harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements:

P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and able to do so. Continue rinsing.

Potential Health Effects

Eyes	Causes eye irritation.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Ingestion	Harmful if swallowed.

NFPA Ratings

Health	3
Flammability	1
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	2
Fire	1
Reactivity	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Benzotriazole (1,2,3)	98	95-14-7	202-394-1	C ₆ H ₄ N ₃ H	119.12 g/mol

4. FIRST-AID MEASURES

Eyes	In case of eye contact, rinse with plenty of water and seek medical attention immediately.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is not flammable. Use appropriate media for adjacent fire. Cool unopened containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes under fire conditions. (Carbon oxides, Nitrogen oxides) (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to a federal/national or local reporting requirements.

Methods and materials for containment and cleaning up	Prevent spillage from entering drains. Pick up and arrange disposal without creating dust. Sweep up and shovel. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.
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7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Protect against moisture and light. Maintain adequate ventilation. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Controls: Product contains no substances with exposure limits.

Personal Protection

Eyes	Wear chemical safety glasses with a face shield for splash protection.
Inhalation	If necessary use an approved respirator with acid vapor cartridges. Provide local exhaust, preferably mechanical.
Skin	Wear neoprene or rubber gloves, apron and other protective clothing appropriate to the risk of exposure.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Off white powder
Odor	Slight odor
Odor threshold	Not Available
pH	(1% solution/water): 1.44
Melting point/freezing point	97°C (207°F)
Initial boiling point and boiling range	350°C (662°F)
Flash point	170°C (338°F; closed cup)
Evaporation rate	Not Available
Flammability (solid, gas)	Not Available
Upper/lower flammability or explosive limit	Not Available
Vapor pressure	0.04 mmHg
Vapor density	4.1
Relative density	Not Available
Solubility (ies)	2.0% by weight @ 20°C
Partition coefficient: n-octanol/water	Log Pow: 1.44
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.

Conditions to Avoid	Heat, ignition sources and incompatibilities.
Incompatible Materials	Strong oxidizers.
Hazardous Decomposition Products	Carbon oxides, Nitrogen oxides when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	Not Available.
Eyes	Not Available.
Respiratory	LD50 IPR-mouse -1000 mg/kg
Ingestion	LD50 Oral – rat – 560 mg/kg.

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Contact causes irritation, inflammation, and blistering.
Eyes	Contact rapidly causes severe damage. Symptoms include eye burns and watering eyes irritation, itching, redness, staining, swelling of exposed tissues. Permanent damage to cornea may result.
Respiratory	Irritation especially to mucous membranes and upper respiratory tract
Ingestion	May cause gastrointestinal pain, diarrhea, nausea and vomiting

Chronic Toxicity	Not Available.
Teratogenicity	Not Available.
Mutagenicity	Not Available.
Embryotoxicity	Not Available.
Specific Target Organ Toxicity	Not Available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	LC50 – Lepomis macrochirus (Bluegill) – 25 mg/l – 96.0 hours
Aquatic Invertebrate	EC50 – Daphnia magna (Water flea) – 91 mg/l – 48 hours
Terrestrial	Not Available.

Persistence and Degradability	Not readily biodegradable
Bioaccumulative Potential	Not Available.
Mobility in Soil	Not Available.
PBT and vPvB Assessment	Not Available.
Other Adverse Effects	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Waste Residues	Dispose of through a licensed contractor. Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORT INFORMATION

US DOT	Not Dangerous Goods.
TDG	Not Dangerous Goods.
IMDG	Not Dangerous Goods.
Marine Pollutant	No
IATA/ICAO	Not Dangerous Goods.

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL / NDSL inventory.
California Proposition 65	Not Listed.
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Benzotriazole
SARA 312	Benzotriazole
SARA 313	Not Listed
WHMIS Canada	Not Listed.

16. OTHER INFORMATION

Revision	Date
Revision 1	07/12/2011
Revision 2	07/12/2012
Revision 3	08/05/2013
Revision 4	02/25/2020

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