









Safety Data Sheet

24 hour Emergency Response No. +86-532-8027466



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION											
1,2,3,Benzotriazole (BTA)		Shandong IRO Water Treatment Co.,Ltd Mushi Town, Tengzhou, Zaozhuang, China									
PRODUCT USE: Water Treatment Application Formulation		IRO phone: +86-532-8027466									
Personal Protection Equipment	GHS Pictograph	DOT Symbol(s)	HMIS (See last page for guide to HMIS)								
 Safety Glasses  Gloves  Dust Respirator		IMO/IMDG/ DOT: UN 3077 Environmentally hazardous substance, solid, n.o.s. Class: 9 PG:III	<table border="1"> <tr><td style="background-color: #000080; color: white;">HEALTH</td><td style="text-align: center;">2</td></tr> <tr><td style="background-color: #FF0000; color: white;">FLAMMABILITY</td><td style="text-align: center;">1</td></tr> <tr><td style="background-color: #FFA500; color: white;">PHYSICAL HAZARD</td><td style="text-align: center;">0</td></tr> <tr><td style="background-color: #000000; color: white;">PERSONAL PROTECTION</td><td style="text-align: center;">E</td></tr> </table>	HEALTH	2	FLAMMABILITY	1	PHYSICAL HAZARD	0	PERSONAL PROTECTION	E
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PERSONAL PROTECTION	E										

SECTION 2: HAZARDS IDENTIFICATION		
EMERGENCY OVERVIEW		
GHS CLASSIFICATION Signal Word Warning: IRRITANT. ENVIRONMENTAL HAZARD  	Hazard Statements H303: May be harmful if swallowed H317: May cause an allergic skin reaction H320: Causes eye irritation H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled H402: Harmful to aquatic life	Precautionary Statements P102: Keep out of reach of children. P233: Keep container tightly closed. P260: Do not breath dust P262: Do not get in eyes, on skin or on clothing. P264: Wash thoroughly after handling. P273: Avoid release to environment P281: Use personal protective equipment as required
RESPONSE: See section 4: FIRST AID MEASURES. Also, see below: <ul style="list-style-type: none"> • P202: Do not handle until all safety precautions have been read and understood. • P270: Do not eat, drink or smoke when using this product. • P 280: Wear gloves, eye protection and face protection (as needed to prevent skin and eye contact. Wash hands or liquid-contacted skin thoroughly after handling.) • P312: Call a Poison Center/doctor if you feel unwell • P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses. 		
STORAGE: Store in a well ventilated place. Keep cool. Store locked up. Keep container tightly closed. Use only approved containers.		
DISPOSAL: Dispose of contents/containers to approved disposal site in accordance with local, regional, and/or international regulations.		



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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS No.	WEIGHT %
1,2,3, Benzotriazole	95-14-7	99.8%

SECTION 4: FIRST-AID MEASURES

Inhalation: If inhaled, remove to fresh air. Keep warm and at rest.

Skin contact: In case of contact, immediately flush skin with plenty of water. Seek medical advice if symptoms persist or develop.

Eye contact: Remove contact lenses. Rinse immediately with plenty of water, also under the eye lids, for at least 15 minutes. Seek medical advice if symptoms persist or develop.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Flammability of the Product: May be combustible at high temperatures

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Fire Hazards in Presence of Various Substances /Products of Combustion: may decompose to carbon oxides and nitrogen oxides. If fumes are present wear an OSHA/NIOSH approved full-face respirator with self-contained breathing apparatus (SCBA).

SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Environmental Precautions: Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.

SECTION 7: HANDLING AND STORAGE

Precautions: Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION EQUIPMENT (PPE)

Engineering Controls: No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal Protection: Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance:	Solid. (crystalline needles solid.)
Odor:	Characteristic
Molecular Weight:	119.13 g/mole
Color:	Off white.
Melting Point:	Not available.
Critical Temperature:	Decomposes.
Volatility:	Not available
Solubility:	Insoluble in hot and cold water (soluble in ethanol, benzene, toluene, chloroform, and watery lye)
Relative Density:	1.24 (Water = 1)

NOTE: the physical data above are typical values and should not be construed as a specification.

SECTION 10: STABILITY AND REACTIVITY

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Reactive with oxidizing materials

Special Remarks on Reactivity: Not available.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appears in this section when such data is available.

Routes of Entry: Eye contact. Inhalation. Ingestion.

Toxicity to Animals: LD50: 560 mg/lk. **Route:** Oral **Species:** Rat

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Avoid skin contact (irritant). Avoid ingestion or inhalation. May be harmful if swallowed.

Special Remarks on Toxicity to Animals: Toxic to aquatic organisms.

Special Remarks on Chronic Effects on Humans: Not available.



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Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data is available.

Ecotoxicity: May cause long-term adverse effects in the aquatic environment.

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic.

Special Remarks on the Products of Biodegradation: Not available.

SECTION 13: DISPOSAL

Environmental precautions: CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Waste Disposal:

Review federal, state and local government requirements prior to disposal.

SECTION 14: TRANSPORT INFORMATION

US DOT:

Also: Classification for SEA transport (IMO-IMDG):

Also: Classification for AIR transport (IATA/ICAO):

UN No.: UN 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.

Proper Technical Name: 1,2,3-Benzotriazole

Hazard Class: 9

Packing Group : III

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations.

SECTION 15: REGULATORY INFORMATION

The following statutes, regulations and standards have the related prescribes on chemicals in terms of safe use, storage, transportation, loading and unloading, classification and symbol S, etc.

- Provisions on the Environmental Administration of New Chemical Substances.
- The Regulation on Chemicals Safe Use at Working Site
- Law on Prevention and Control of Environmental Pollution Caused by Solid Waste.
- Occupational Exposure Limits for Hazardous Agent in The workshop Chemical Hazardous Agents (GBZ 2.1).

China. Inventory of Existing Chemical Substances in China (IECSC):

All intentional components are listed on the inventory, are exempt, or are supplier certified

U.S. Federal and State Regulations: TSCA 8(b) inventory: Totyltriazole

WHMIS (Canada): Not controlled under WHMIS (Canada).



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HCS Classification: May be harmful if swallowed.

SECTION 16: OTHER INFORMATION

Further information: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Information Source and References: This SDS is prepared by IRO Specialty Chem. USA, Inc. from information supplied by internal references within our company

Shandong IRO Water Treatment Co. Ltd., Shandong Province, China: Urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given.

Regulatory requirements: These are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer, specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version. Contact us at: <https://www.irowater.com>

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U.S. 24 hour Emergency Response No. **+1-800-424-9300**



HAZARDOUS MATERIALS IDENTIFICATION SYSTEM			
HAZARD INDEX		PERSONAL PROTECTION INDEX	
4 = SEVERE HAZARD	An asterisk (*) or other designation corresponds to additional information on a data sheet or separate chronic effects notification.	A	
3 = SERIOUS HAZARD		B	
2 = MODERATE HAZARD		C	
1 = SLIGHT HAZARD		D	
0 = MINIMAL HAZARD	Additional Information	E	
PERSONAL PROTECTION EQUIPMENT		F	
A Safety Glasses	n Respirator	G	
o Face Shield & Eye Protection	p Gloves	H	
q Boots	r Synthetic Skin	I	
s Full Suit	t Full Face Respirator	J	
u Hearing Protector	w Cold & Vapor Respirator	K	
y Full Face Respirator	z Hearing Protector or Muff	X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions

Shandong IRO Water Co., Ltd.