









# Safety Data Sheet

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



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION											
<b>2-Mercaptobenzothiazole</b>		<b>IRO SPECIALTY CHEM. USA, INC.</b> 13702 Village Mill Drive. Suite 202. Midlothian, VA 23114-8801 804-245-2256									
PRODUCT USE: Water Treatment Application Formulation		IRO USA phone: 804-245-2256									
Personal Protection Equipment	GHS Pictograph	DOT Symbol(s)	HMIS (See last page for guide to HMIS)								
 Safety Glasses  Gloves  Dust Respirator		<b>IMO/IMDG/ DOT:</b> <b>UN 3077</b> Environmentally hazardous substance, solid, n.o.s. Class: 9 PG:III	<table border="1"> <tr> <td><b>HEALTH</b></td> <td><b>2</b></td> </tr> <tr> <td><b>FLAMMABILITY</b></td> <td><b>1</b></td> </tr> <tr> <td><b>PHYSICAL HAZARD</b></td> <td><b>0</b></td> </tr> <tr> <td><b>PERSONAL PROTECTION</b></td> <td><b>E</b></td> </tr> </table>	<b>HEALTH</b>	<b>2</b>	<b>FLAMMABILITY</b>	<b>1</b>	<b>PHYSICAL HAZARD</b>	<b>0</b>	<b>PERSONAL PROTECTION</b>	<b>E</b>
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<b>PERSONAL PROTECTION</b>	<b>E</b>										

SECTION 2: HAZARDS IDENTIFICATION		
EMERGENCY OVERVIEW		
<b>GHS CLASSIFICATION</b> <b>Signal Word Warning:</b> <b>IRRITANT.</b> <b>ENVIRONMENTAL HAZARD</b>  	<b>Hazard Statements</b> <b>H317:</b> May cause an allergic skin reaction <b>H410:</b> Very toxic to aquatic life with long lasting effects.	<b>Precautionary Statements</b> <b>P262:</b> Do not get in eyes, on skin or on clothing. <b>P273:</b> Avoid release to environment <b>P280:</b> Wear protective gloves / clothing / eye / face protection.
<b>RESPONSE:</b> See section 4: FIRST AID MEASURES. Also, see below: <ul style="list-style-type: none"> <li>• <b>P202:</b> Do not handle until all safety precautions have been read and understood.</li> <li>• <b>P270:</b> Do not eat, drink or smoke when using this product.</li> <li>• <b>P 280:</b> Wear gloves, eye protection and face protection (as needed to prevent skin and eye contact. Wash hands or liquid-contacted skin thoroughly after handling.)</li> <li>• <b>P312:</b> Call a Poison Center/doctor if you feel unwell</li> <li>• <b>P338:</b> If in eyes, rinse cautiously with water for several minutes. Remove contact lenses.</li> </ul>		
<b>STORAGE:</b> Store in a well ventilated place. Keep cool. Store locked up. Keep container tightly closed. Use only approved containers.		
<b>DISPOSAL:</b> 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 %
2-Mercaptobenzothiazole	149-30-4	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

<b>Physical state and appearance:</b>	Solid. (crystalline needles solid.)	<b>Vapor Pressure:</b>	No data available.
<b>Odor:</b>	Disagreeable.	<b>Water Solubility:</b>	0.118 g/L at 25°C (77°F) - insoluble
<b>Molecular Weight:</b>	167.24 g/mole	<b>Decomposition temperature(°C/°F):</b>	>260°C/ >500°F
<b>Color:</b>	Pale Yellow.	<b>Boiling point/range(°C/°F):</b>	>260°C/ >500°F
<b>Melting Point:</b>	170-181.7°C/338-359.06°F	<b>Specific gravity:</b>	1.42
<b>Ignition Temperature:</b>	No data available.		
<b>Lower Explosion Limit (%):</b>	15%		
<b>Density:</b>	1.42 g/cm <sup>3</sup> at 20°C (68°F)		
<b>Flash Point:</b>	200°C (392°F) - closed cup		

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

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions.

**Instability Temperature:** Not available.

**Conditions of Instability:** Heat. Ignition sources. Incompatible materials.

**Incompatibility with various substances:** Strong oxidizing agents, Strong acids and alkalis.

**Special Remarks on Reactivity:** No information 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: 3800 mg/kg. **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:** Aquatic environment.

**Products of Biodegradation:** : Biotic/Aerobic Result: < 1 % - Not readily biodegradable

**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:** 2-Mercaptobenzothiazole

**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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**Author: C Frayne**



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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  Splash Goggles	G	
o  Face Shield & Eye Protection	p  Gloves	H	
q  Boots	r  Synthetic Apron	I	
s  Full Suit	t  Full Respirator	J	
u  Vapor Respirator	w  Chem. & Vapor Respirator	K	
y  Full Face Respirator	z  Helm Hood or Mask	X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions