



Safety Data Sheet





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



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

<h1>IR-BHMTMPA</h1>	Shandong IRO Water Treatment Co.,Ltd Mushi Town, Tengzhou, Zaozhuang, China IRO phone: +86-532-8027466
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PRODUCT USE: Water Treatment Application Formulation

Personal Protection Equipment	GHS Pictograph	DOT Symbol(s)	HMIS (See last page for guide to HMIS)								
 Safety Glasses  Gloves  Protective Apron		IMO/IMDG Class : 8 UN 3265 Pack Grp : III DOT Label: Corrosive	<table border="1"> <tr><td style="background-color: #000080; color: white;">HEALTH</td><td style="background-color: #000080; color: white;">3</td></tr> <tr><td style="background-color: #FF0000; color: white;">FLAMMABILITY</td><td style="background-color: #FF0000; color: white;">0</td></tr> <tr><td style="background-color: #FFA500; color: white;">PHYSICAL HAZARD</td><td style="background-color: #FFA500; color: white;">1</td></tr> <tr><td style="background-color: #000000; color: white;">PERSONAL PROTECTION</td><td style="background-color: #000000; color: white;">C</td></tr> </table>	HEALTH	3	FLAMMABILITY	0	PHYSICAL HAZARD	1	PERSONAL PROTECTION	C
HEALTH	3										
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SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING! CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT; BURNS IN RESPIRATORY TRACT AND MUCOUS MEMBRANE. HARMFUL IF SWALLOWED OR INHALED.

<p>GHS CLASSIFICATION Signal Word Warning: CORROSIVE</p> <div style="text-align: center;">  </div>	<p>Prevention Precautionary Statements P234: Keep only in original container. P260: Do not breathe. P264: Wash hands thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P280: Wear protective gloves/eye protection/face protection. P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501: Dispose of contents/container through a waste management company authorized by the local government.</p>
<p>GHS Hazard Statements H290: May be corrosive to metals. H303: May be harmful if swallowed. H314 - Causes severe skin burns and eye damage. H332 - Harmful if inhaled. H315+H318: Causes skin irritation & eye damage</p>	

RESPONSE: See section 4: **FIRST AID MEASURES**. Also, see below:

- **P202:** Do not handle until all safety precautions have been read and understood.
- **P270:** Do not eat, drink or smoke when using this product.
- **P280:** Wear gloves, eye protection and face protection (as needed to prevent skin and eye contact Wash hands or liquid-contacted skin thoroughly after handling.

STORAGE: **P403+235:** Store in a well ventilated place. Keep cool. **P404:** Keep container tightly closed. Use only approved containers. **P405:** Store locked up.

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 %
Bis(hexamethylene)triamine(pentamethylenephosphonic acid)	34690-00-1	43-48%
Water	7732-18-5	balance

SECTION 4: FIRST-AID MEASURES

Inhalation: When safe to enter area, remove from exposure. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Get medical attention.

Skin Contact: Remove contaminated clothing, jewelry and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15 – 20 minutes). Get medical attention, if needed.

Eye Contact: Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.

Ingestion: Never make an unconscious person vomit or drink fluids. Give water or milk. If vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.

SECTION 5: FIRE-FIGHTING MEASURES

Hazardous Products of Combustion:

carbon monoxide (CO); carbon dioxide; nitrogen oxides (NO_x);phosphorus oxides (P_xO_y)

Extinguishing Media: Water spray, foam, dry chemical, or carbon dioxide

Unusual Fire and Explosion Hazards: None known

Fire Fighting Equipment: Firefighters, and others exposed, wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protection recommended in section 8.

Environmental Precautions: Keep out of drains and water courses.

Methods for Cleaning Up: Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container. Flush spill area with large amounts of water.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information.

SECTION 7: HANDLING AND STORAGE

Handling

Do not get into eyes, on skin, or on clothing. Avoid breathing vapor or mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

Storage

Product is stable under normal conditions of handling and storage.

Emptied containers retain vapor and product residue. Observe all recommended safety precautions until



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container is cleaned, reconditioned, or destroyed. The reuse of this material's container for non-industrial purposes is prohibited and any reuse must be in consideration of the data provided in this safety data sheet.

Suitable materials of construction: glass lining; PVC; polypropylene; glass reinforced plastic (GIP); polyethylene

Unsuitable materials of construction: mild steel; carbon steel; aluminum; other metals

General: Keep in a cool, well-ventilated place.

Stable under normal conditions of handling and storage.

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

No specific occupational exposure limit has been established.

Eye Protection: Cause significant eye irritation. Use good industrial practice to avoid eye contact.

Body Protection: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Respiratory Protection: Avoid breathing vapor or mist.

Ventilation: Provide natural or mechanical ventilation to minimize exposure. If practical, use local mechanical exhaust ventilation at sources of air contamination such as processing equipment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:

Liquid

Appearance:

Clear, dark amber solution

Density:

1.20 approx.

Molecular weight

685

pH : (1% solution)

Approximately 2.0

Iron (as Fe)

65 ppm max

Water solubility:

Complete

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

SECTION 10: STABILITY AND REACTIVITY

Conditions to avoid: Do not expose to extreme temperatures.

Reactivity/Materials to avoid: Avoid contact with strong oxidizing agents and/or contact with strong acid solution. Attacks many metals.

Hazardous decomposition products: carbon monoxide (CO); carbon dioxide; nitrogen oxides (NO_x); phosphorus oxides (P_xO_y); phosphines

SECTION 11: TOXICOLOGICAL INFORMATION

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

This product has been tested for toxicity. The assessment below is based on data obtained on this product and on a related product of similar composition.



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Acute animal toxicity data

Oral: LD50 , rat, > 5,000 mg/kg , Practically nontoxic following oral administration.

Dermal: LD50 , rabbit, > 5,000 mg/kg , Practically nontoxic after skin application in animal studies.

Eye irritation: rabbit , Practically non irritating to eyes (rabbit),. 24 h

Skin irritation: rabbit , Practically non irritating to skin (rabbit),. 24 h

Developmental toxicity: rat, diet, Minor variations and/or reduced fetal weight, but no birth defects were observed in rat pups following treatment during pregnancy.

Reproductive toxicity: rat, diet, 1 generation, Signs of generalized toxicity (reduced body weight and/or reduced weight gain) were observed in parental animals and offspring with no effect on fertility or reproduction.

Mutagenicity: No genetic effects were observed in standard tests using bacterial and animal cells. No genetic effects were observed in standard tests using whole animals.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: This product has not been tested for environmental toxicity, but data obtained on similar products are summarized below:

Environmental Toxicity:

Invertebrates: 48 h EC50 Water flea (*Daphnia magna*) 242 mg/l

Fish: 96 h LC50 Rainbow trout (*Oncorhynchus mykiss*) > 180 mg/l

Algae: 96 h EC50 Algae (*Selenastrum capricornutum*) 1.6 mg/l

Environmental Fate: Do not allow product to enter drains, waterways or sewers.

Bioaccumulation Potential: Environmental Fate/Bioconcentration Factor (BCF) not expected to bioaccumulate.

Environmental Impact: No Data Available

SECTION 13: DISPOSAL

Miscellaneous advice:

Local, state, provincial, and national disposal regulations may be more or less stringent. Consult your attorney or appropriate regulatory officials for information on such disposal. This product should not be dumped, spilled, rinsed or washed into sewers or public waterways.



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SECTION 14: TRANSPORT INFORMATION

United States of America: US DOT

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

([[[(Phosphonomethyl)imino]bis[hexamethylenenitrilobis(methylene)]]tetrakisphosphonic acid)

Class 8 Corrosive Substances

Subsidiary Risk(s): No Data Available

UN Number: 3265

Hazchem: No Data Available

Pack Group: III

Special Provision: No Data Available

IMDG Code

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

([[[(Phosphonomethyl)imino]bis[hexamethylenenitrilobis(methylene)]]tetrakisphosphonic acid)

Class 8 Corrosive Substances

Subsidiary Risk(s) No Data Available

UN Number 3265

Hazchem: No Data Available

Pack Group: III

Special Provision: No Data Available

Marine Pollutant: No

SECTION 15: REGULATORY INFORMATION

UNITED STATES

(TSCA 8b): Listed

SECTION 302: No chemicals in this material are subject to reporting requirements of SARA Title III, Section 302.

SECTION 311/312: Acute Health.

SECTION 313: None

CERCLA RQ: None

California Proposition 65: No

CANADA

WHMIS (Canada): Class E, Corrosive material

HMIS Rating:

Health: 1 (Slight)

Flammability: 0 (Minimal)

Physical Hazard: 1 (Slight)

Personal Protection: B

EUROPEAN/INTERNATIONAL REGULATIONS European Labeling in Accordance with EC Directives

EINECS EC Code: 2521566

H315: Causes skin irritation.

H318: Causes serious eye damage

H412: Harmful to aquatic life with long lasting effects.



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C Corrosive
N Dangerous for the environment
R34 Causes burns
R36 Irritating to eyes

CALIFORNIA PROPOSITION 65: This product or its components are not listed on any Proposition 65 lists of carcinogens or reproductive toxicants.

COMMENTS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and this SDS contains all the information required by the Controlled Products Regulations

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 (<https://www.irowater.com>) for the most current version.

Date of production of SDS: 5/09/2016:

Author: CFrayne



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HAZARDOUS MATERIALS IDENTIFICATION SYSTEM			
HAZARD INDEX 4 = SEVERE HAZARD 3 = SERIOUS HAZARD 2 = MODERATE HAZARD 1 = SLIGHT HAZARD 0 = MINIMAL HAZARD		An asterisk(*) or other designation corresponds to additional information on a data sheet or separate chronic effects notification. Additional Information	
PERSONAL PROTECTION EQUIPMENT			
A Safety Glasses	n Splash Goggles	o Face Shield & Eye Protection	p Gloves
q Boots	r Synthetic Apron	s Full Suit	t Hard Respirator
u Major Respirator	w Chem & Vapor Respirator	y Full Face Respirator	z N95 or Better Head or Mask
PERSONAL PROTECTION INDEX			
A			
B			
C			
D			
E			
F			
G			
H			
I			
J			
K			
X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions		

Shandong IRO Water Co., Ltd.