







Safety Data Sheet



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

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION											
IR-HMDTMP.K6		Shandong IRO Water Treatment Co.,Ltd Mushi Town, Tengzhou, Zaozhuang, China IRO phone: +86-532-8027466									
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		US DOT/IMDG Not regulated as a hazardous material	<table border="1"> <tr> <td>HEALTH</td> <td>1</td> </tr> <tr> <td>FLAMMABILITY</td> <td>0</td> </tr> <tr> <td>PHYSICAL HAZARD</td> <td>0</td> </tr> <tr> <td>PERSONAL PROTECTION</td> <td>B</td> </tr> </table>	HEALTH	1	FLAMMABILITY	0	PHYSICAL HAZARD	0	PERSONAL PROTECTION	B
HEALTH	1										
FLAMMABILITY	0										
PHYSICAL HAZARD	0										
PERSONAL PROTECTION	B										
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.											
GHS CLASSIFICATION Signal Word Warning: IRRITANT 	Prevention Precautionary Statements P234: Keep only in original container. 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. P501: Dispose of contents/container through a waste management company authorized by the local government.										
GHS Hazard Statements H303: May be harmful if swallowed. H316: Causes mild skin irritation H319: Causes serious eye irritation. H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled	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. 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 %
Hexa potassium salt of Methylenediamine-Tetra (methylenephosphonic acid) (HMDTMP.K6)	38820-59-6	31-36%

SECTION 4: FIRST-AID MEASURES

Inhalation: Remove from exposure. If breathing becomes difficult, call a physician.

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

Fire And Explosion Hazard: Non flammable aqueous solution. Material will not burn.

Hazardous Products of Combustion: carbon monoxide (CO); carbon dioxide; nitrogen oxides (NOx); phosphorus oxides (PxOy)

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

Unusual Fire and Explosion Hazards: None known

Fire Fighting Equipment: Firefighters, and others exposed, wear self-contained breathing apparatus. Prevent contact with eyes and/or skin. Equipment should be thoroughly decontaminated after use.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protection recommended in section 8. Specifically a dust mask.

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 (e.g. sand) and then place in a chemical waste container. Flush spill area with large amounts of water.

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 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: unlined mild steel; carbon steel; aluminum; other metals

General: Keep in a cool, well-ventilated place. Stable under normal conditions of handling and storage.



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

OSHA TWA: No specific PEL/STEL 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.
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, colorless to pale yellow
Active content (as salt):	31-36%
Total Phosphoric acid (as PO₄³⁻)	16.8 % min
Chloride (as Cl⁻)	4.0 % max.
Specific gravity	1.21-1.31 @20 °C
Molecular weight	721 (as K ₆ salt)
pH : (1% solution)	Approximately 6.0-8.0
Water solubility:	Soluble
Freezing point:	-15 °C

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

SECTION 10: STABILITY AND REACTIVITY

Conditions to avoid: No data available. Not flammable.
Reactivity/Materials to avoid: Avoid contact with strong oxidizing agents and/or contact with strong acid solution.
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.

Toxicity Data: 10,000 mg/kg oral-mouse LD₅₀

Local Effects: Irritant skin, eye corrosive, inhalation ingestion.

Acute Toxicity Level: Moderately toxic: ingestion

Health Effects:

Inhalation: Acute Exposure: Aqueous solutions have been reported to be corrosive to all mucous membranes. Chronic Exposure: No data available.



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Skin Contact: Acute Exposure: Aqueous solutions may cause itching.
Chronic Exposure: Repeated or prolonged exposure to irritants may cause dermatitis.
Eye Contact: Acute Exposure: Aqueous solutions may cause severe itching.
Chronic Exposure: Repeated or prolonged exposure to irritants may cause conjunctivitis.
Ingestion: Acute Exposure: Aqueous solutions have been reported to be severely irritating to all mucous membranes. Chronic Exposure: Convulsions or effect on seizure threshold. Gastrointestinal:diarrhea.

SECTION 12: ECOLOGICAL INFORMATION

Environmental Toxicity: No data available
Environmental Fate: No bioaccumulation is expected
Biodegradation: No data available
Bioconcentration Factor (BCF): Not expected to bioaccumulate.

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.

SECTION 14: TRANSPORT INFORMATION

United States of America: US DOT: Not regulated as a hazardous material
Subsidiary Risk(s): No Data Available
UN Number: -
Hazchem: No Data Available
Special Provision: No Data Available
IMDG Code: -
Proper Shipping Name:
Hexa potassium salt of Methylenediamine-Tetra (methylenephosphonic acid) (HMDTMP.K6)
Aka: [Hexane-1,6-diylbis[nitrilobis(methylene)]]tetrakisphosphonic acid, potassium salt:
Hazchem: No Data Available
Special Provision: No Data Available
Marine Pollutant: No

SECTION 15: REGULATORY INFORMATION

UNITED STATES

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
38820-59-6	Hexapotassium salt of Hexamethylenediamine-tetra (methylenephosphonic acid)	No	No	No



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This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

- Yes No Acute (immediate) Health Hazard
- Yes No Chronic (delayed) Health Hazard
- Yes No Fire Hazard
- Yes No Sudden Release of Pressure Hazard
- Yes No Reactive Hazard

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: 6/6/2017:

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 Dermal	w Chem & Vapor Respirator	y Full Face Respirator	z N95 or Better Head or Mask
PERSONAL PROTECTION INDEX		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		

Chandong IRO Water Co., Ltd.