

MATERIAL SAFETY DATA SHEET

MSDS

Hydrotech ShockRight for Spas & Hot Tubs

Date-Issued: 09/12/1997
MSDS Ref. No: AHYD32508
Date-Revised: 02/22/2005
Revision No: 5

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Hydrotech ShockRight for Spas & Hot Tubs
GENERAL USE: Non-Chlorine Shock
CHEMICAL FAMILY: Peroxygen Salt

MANUFACTURER

Asepsis, Inc.
Hydrotech
P.O. Box 1788
Suwanee, GA 30024-0973
Customer SERVICE: (800) 959-7946

24 HR. EMERGENCY TELEPHONE NUMBERS

Poison Control Center (Medical) : (877) 800 - 5553
CHEMTREC (US Transportation) : (800) 424 - 9300

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS#</u>	<u>Wt. %</u>
Potassium Peroxymonosulfate	10058-23-8	43
Potassium Bisulfate	7646-93-7	23
Potassium Sulfate	7778-80-5	29
Potassium Peroxydisulfate	7727-21-1	3
Magnesium Carbonate	546-93-0	2

COMMENTS: Note: CAS # for mixture is 70693-62-8

3. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

PHYSICAL APPEARANCE: White, granular material

IMMEDIATE CONCERNS: DANGER: Corrosive: Causes burns to eyes and skin. Harmful if swallowed. Irritating to nose and throat. Avoid contact with eyes, skin and mucous membranes. Void breathing dust. Wear safety glasses and rubber gloves when handling. If product gets on clothing, remove and wash before reuse.

POTENTIAL HEALTH EFFECTS

EYES: Causes eye burns. Do not get in eyes.

SKIN: Causes skin burns. Avoid contact with skin.

INGESTION: May cause inflammation and damage to the lining of the stomach, resulting in bleeding.

INHALATION: Irritating to nose and throat. May cause nosebleeds and irritation of upper respiratory passages, with coughing and discomfort. Avoid breathing dust or vapors.

CHRONIC: There are no known chronic hazards.

ROUTES OF ENTRY: Skin Contact, Inhalation, Ingestion, Eye Contact.

SENSITIZATION: Skin contact with this product may cause allergic skin reactions in sensitive individuals. Human patch tests with the product diluted in water at concentrations up to 150 ppm did not cause allergic skin reaction.

COMMENTS: Individuals with preexisting diseases of the skin or gastrointestinal tract may have increased susceptibility to the toxicity of

excessive exposures.

4. FIRST AID MEASURES

EYES: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

SKIN: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. If irritation develops, get medical attention.

INGESTION: If swallowed: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

INHALATION: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call poison control center or doctor for treatment advice.

5. FIRE FIGHTING MEASURES

GENERAL HAZARD: This product is not flammable or combustible.

EXTINGUISHING MEDIA: Water

HAZARDOUS COMBUSTION PRODUCTS: Will release oxygen when heated, intensifying a fire. Acidic mist may be present.

FIRE FIGHTING PROCEDURES: Exercise caution when fighting any chemical fire. A self-contained breathing apparatus and protective clothing are essential.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Utilizing appropriate protective clothing and safety equipment, contain spilled material. Keep spill out of sewers and open bodies of water. Using clean dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place in clean dry plastic containers for disposal. Dispose of according to local, state, and federal regulations.

7. HANDLING AND STORAGE

HANDLING: STRONG OXIDIZING AGENT: Do not mix this product with any other chemicals. Fire or explosion may result. Always add this product to large quantities of water, never the reverse. Do not place this product in skimmer basket, pump pot, brominator, or chlorinator.

STORAGE: Keep this product in original tightly closed container when not in use. Store this product in a cool dry area, away from direct sunlight and heat. Do not reuse container, but place in trash collection.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

		<u>EXPOSURE LIMITS</u>					
		<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>SUPPLIER OEL</u>	
		<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>
Potassium Peroxymonosulfate	TWA	[1]				[2]	
Potassium Bisulfate	TWA	N/E ^[3]		N/E			
Potassium Sulfate	TWA	N/E ^[4]		N/E			
Potassium Peroxydisulfate	TWA			[5]			
Magnesium Carbonate	TWA	[6]		[7]			

OSHA TABLE COMMENTS:

1. 15 mg/m³, 8 hr, total dust

2. 1 mg/m³, 8hr
3. N/E = None Established
4. N/E = Not Established
5. 0.1 mg/m³, 8 hr
6. 15 mg/m³, 8 hr., total dust
7. 10 mg/m³, 8 hr., total dust

ENGINEERING CONTROLS: General room ventilation plus local exhaust should be used to maintain exposure below TLV.

PERSONAL PROTECTIVE EQUIPMENT:

EYES AND FACE: Wear goggles or safety glasses with side shields when handling this product.

SKIN: Wear rubber gloves when handling this product. Avoid contact with skin.

RESPIRATORY: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

WORK HYGIENIC PRACTICES: Remove and wash contaminated clothing before reuse.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash and safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

ODOR: Odorless

APPEARANCE: Granular, free-flowing solid

COLOR: White

pH: 2.3 (1% solution)

VAPOR PRESSURE: Nil

VAPOR DENSITY: Not-Volatile

BOILING POINT: Not Determined

FREEZING POINT: Not Determined

MELTING POINT: Not Determined

SOLUBILITY IN WATER: 25.6 g / 100 g water @ 20 C

SPECIFIC GRAVITY: 1.1 to 1.4

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: High temperature. Poor ventilation. Contamination. Moisture/high humidity.

STABILITY: This product is stable under normal conditions.

POLYMERIZATION: Hazardous polymerization will not occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxygen gas can be produced.

INCOMPATIBLE MATERIALS: Do not mix with other swimming pool/spa chemicals in their concentrated forms. Mixing with compounds containing halides or active halogens can cause release of the respective halogen if moisture is present. Mixing with cyanides can cause release of hydrogen cyanide gas. Mixing with heavy metal salts such as those of cobalt, nickel, copper, or manganese can cause decomposition with release of oxygen and heat.

11. TOXICOLOGICAL INFORMATION

ACUTE

SKIN ABSORPTION: >11,000 mg/kg in rabbits

ORAL LD₅₀: 2,000 mg/kg (rat)

INHALATION LC₅₀: >5 mg/l (rats) (4-hour)

EYE EFFECTS: This product is corrosive to eyes.

SKIN EFFECTS: This product is corrosive to skin.

CARCINOGENICITY:

This product is not listed as a carcinogen by IARC.

This product is not listed as a carcinogen by NTP.

This product is not listed as a carcinogen by OSHA.

GENERAL COMMENTS: Single inhalation exposures produced nonspecific effects such as weight loss and irritation. Repeated inhalation exposures produced eye irritation and reversible corneal damage. By ingestion, the administration of large single doses produced nonspecific effects such as weight loss and irritation as well as gastric ulceration, necrosis, and hemorrhage. The compound does not produce genetic damage in bacterial cell cultures.

12. ECOLOGICAL INFORMATION**ECOTOXICOLOGICAL INFORMATION:****Acute Toxicity:**

96 hr LC50 = 3,500 mg/L (Bluegill sunfish) (potassium sulfate)

96 hr LC50 > 1,000 mg/L (Unidentified species) (magnesium carbonate)

This product may be toxic to fish and aquatic organisms. Keep product from entering waterways and watersheds.

13. DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL: Do not put product, spilled product, or partially filled containers into the trash or waste compactor. Contact with incompatible materials could cause a reaction or fire. Comply with federal, state, and local regulations. Solutions greater than 3% by weight have a pH <2.0 and may be a RCRA hazardous waste upon disposal due to the acidic pH characteristic of the solution. If approved, flush to sewer or waste treatment plant. Large quantities should be neutralized with soda ash.

EMPTY CONTAINER: Do not reuse container. Rinse thoroughly before discarding in trash.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)**

PROPER SHIPPING NAME: Corrosive Solid, Acidic, Inorganic, N.O.S. (Monopersulfate Compound)

PRIMARY HAZARD CLASS/DIVISION: 8 (Corrosive)

UN/NA NUMBER: 3260

PACKING GROUP: II

AIR (ICAO/IATA)

IATA NOTE: Keep away from ... (incompatible materials to be indicated by the manufacturer).

15. REGULATORY INFORMATION**UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)****311/312 HAZARD CATEGORIES:**

FIRE: NO **PRESSURE GENERATING:** NO **REACTIVITY:** YES **ACUTE:** YES **CHRONIC:** NO

313 REPORTABLE INGREDIENTS: This product or its components are not listed.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: This product or its components are not listed.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: This product or its components are not subject to export notification.

TSCA STATUS: This product or its components are listed on the TSCA Inventory.

OSHA HAZARD COMM. RULE: Product is hazardous by definition of the Hazardous Communication Standard.

FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT): This product is not a registered pesticide.

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): Canada Pest Control Products Act Registration Number: 23137 WHMIS Classifications: Class C: Oxidizing Material Class D, Division 2, Subdivision B (D2B): Toxic Material. Skin or eye irritant. Class E: Corrosive Material NPCA-WHMIS Rating: Health - 3 Flammability - 0 Reactivity - 1

DOMESTIC SUBSTANCE LIST (INVENTORY): Listed

16. OTHER INFORMATION

PREPARED BY: Regulatory Affairs Department

REVISION SUMMARY Revision #: 5 This MSDS replaces the February 22, 2005 MSDS. Any changes in information are as follows: In Section 14 IATA Note

HMIS RATING

HEALTH:		3
FLAMMABILITY:		0
PHYSICAL HAZARD:		1
PERSONAL PROTECTION:		B

NFPA RATING

HEALTH:	3
FIRE:	0
REACTIVITY:	1

Key

- 4 = Severe
- 3 = Serious
- 2 = Moderate
- 1 = Slight
- 0 = Minimal

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