

Vanson HaloSource, Inc.
Material Safety Data Sheet

Material Name: **SEA KLEAR-Chlorine Free Shock**
Telephone No: **425-881-6464**

VHI-MSDS-02.15 Rev 3
Date Prepared: **December 17, 2002**

24-HOUR EMERGENCY PHONE: CHEMTREC 800-424-9300

SECTION I – CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Manufacturer's Name: Vanson HaloSource, Inc.
Corporate Address: 14716 NE 87th Street, Redmond, WA 98052
Manufacturer's Phone (Emergency): 800-424-9300 Chemtrec
Manufacturer's Phone (Other): (425) 881-6464
Material Name: SEA KLEAR- Chlorine free shock
Chemical Name: Potassium Hydrogen Peroxymonosulfate Sulfate

SECTION II – COMPOSITION, INFORMATION ON INGREDIENTS

| CAS NO. | INGREDIENT | % | EXPOSURE LIMITS |
|------------|--|-----|---|
| 70693-62-8 | Potassium Hydrogen Peroxymonosulfate Sulfate | | OSHA PEL: N/A OSHA STEL: N/A ACGIH TLV: N/A |
| 10058-23-8 | Potassium Peroxymonosulfate | 43% | |
| 7778-80-5 | Potassium Sulfate | 32% | |
| 7646-93-7 | Potassium Bisulfate | 23% | |
| 546-93-0 | Magnesium Carbonate | 2% | |

SECTION III – HAZARDS IDENTIFICATION

PRINCIPAL HEALTH HAZARDS, INCLUDING SIGNIFICANT ROUTES, EFFECTS, AND SYMPTOMS OF OVEREXPOSURE AND MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE MAY BE:

EYE: May cause eye irritation with discomfort, tearing or blurring of vision.

SKIN: Possible skin irritation. May cause allergic skin reactions in high concentrations in sensitive individuals. With lower concentrations of 12ppm and 150ppm, no allergic reactions were noted.

INHALATION: May cause irritation of the upper respiratory passages with coughing and discomfort.

INGESTION: Ingestion may cause inflammation and damage to the lining of the stomach resulting in bleeding.

CARCINOGENICITY: None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen..

SECTION IV - FIRST AID

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EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

SKIN: Remove contaminated clothing wash contaminated clothing before reuse. Immediately wash exposed area with soap and water. If symptoms persist, seek medical attention.

INHALATION: If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. If breathing stops, administer artificial respiration. Call a physician.

INGESTION: Seek medical attention. If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person..

SECTION V - FIRE FIGHTING MEASURES

HAZARDOUS COMBUSTION PRODUCTS: Storage of large masses of "Oxone" can trap heat and lead to ignition of paper. Grinding or intensive mixing may cause ignition of oxidizable material present.

EXTINGUISHING MEDIA: Water.

FIREFIGHTING INSTRUCTIONS: Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coat, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Water may be used to keep fire-exposed containers cool until fire is out.

FLASH POINT: No information.

SECTION VI – ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Sweep up. Flush area with low-pressure water.

LARGE SPILL: No information on handling large spills.

DISPOSAL INFORMATION: No disposal information.

DISPOSAL METHODS: Disposal must be made in accordance with all applicable governmental regulations.

SECTION VII - HANDLING & STORAGE

HANDLING & STORAGE PRECAUTIONS: Avoid breathing dust. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling.

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Store in a cool, dry, well-ventilated area. Stack on pallets providing air space; closely stacked bags should not exceed a 4 ft. cube. Keep packages dry. Do not store with combustible materials.

SECTION VIII - EXPOSURE CONTROLS/ PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT (PPE): Good hygiene practices should be strictly followed. Before eating, drinking or smoking, wash face and hands thoroughly. For operations where eye or face contact may occur, wear chemical goggles or face shield. Showers and eyewash facilities should be accessible.

EYE PROTECTION: For operations where eye or face contact can occur, wear chemical, splash proof goggles or face shield.

SKIN PROTECTION: For operations where skin contact can occur, wear impervious rubber or neoprene gloves. Gloves may be decontaminated by washing with mild soap and water.

PROTECTIVE CLOTHING: To prevent repeated or prolonged skin contact, wear impervious clothing such as gloves, apron, boots, or whole body suit made of rubber as appropriate. Leather gloves may be used when handling dry material. Launder contaminated clothing separately before reuse.

PROTECTIVE FOOTWEAR: Impervious rubber or neoprene boots.

RESPIRATORY PROTECTION: A NIOSH/MSHA approved air-purifying respirator with a dust/mist cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known or any other circumstances where air-purifying respirators may not provide adequate protection.

VENTILATION REQUIREMENTS: Use adequate local exhaust ventilation where vapors, mists or sprays may be generated.

SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL FORM: Granular; free flowing solid. White.

ODOR: Odorless

MELTING POINT/FREEZE POINT: Decomposes

SOLUBILITY IN WATER: 25.6 wt % @ 20 C (68F)

BOILING POINT: @ 760mm Hg decomposes

pH: 1% solution = 2.3; 3% solution = 2.0

SPECIFIC GRAVITY: 1.1-1.4

Values should not be construed as a guaranteed analysis of any specific lot or as specifications.

SECTION X - STABILITY & REACTIVITY DATA

CHEMICAL STABILITY: Stable

HAZARDOUS POLYMERIZATION: Polymerization will not occur..

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INCOMPATIBLES: The mixture of "Oxone" with compounds containing halides or active halogens can cause release of the respective halogen if moisture is present. For example, mixture with chloride can cause release of chlorine gas; mixture with cyanides can cause release of hydrogen cyanide gas; and heavy metal salts such as those of cobalt, nickel, copper, or manganese cause the evolution of oxygen.

DECOMPOSITION PRODUCTS: Releases oxygen gas.

SECTION XI - TOXICOLOGICAL INFORMATION

ORAL LD₅₀ (rat): > 2,000 mg/kg

DERMAL LD₅₀ (rabbit): > 11,000 mg/kg

EYE IRRITATION (rabbit): N/A

SKIN IRRITATION (rabbit): N/A

INHALATION 4-hr LC₅₀ (rat): >5 mg/1

SECTION XII - ECOLOGICAL INFORMATION

| | | |
|--------------------------------------|---|-------------|
| Fish 96-hour LC ₅₀ | = | > 1,000 ppm |
| Daphnia 48-hour LC ₅₀ | = | N/A |
| Green algae 96-hour EC ₅₀ | = | N/A |
| Fish Chronic Value (ChV) | = | N/A |
| Daphnia ChV | = | N/A |
| Algae ChV | = | N/A |

SECTION XIII - DISPOSAL CONSIDERATION

WASTE DISPOSAL METHOD: If approved, flush to sewer or waste treatment plant. Large quantities should be neutralized with soda ash. State and local regulations may differ from federal regulations. Dispose of containers and unused contents in accordance with all applicable federal, state, and local regulations.

SECTION XIV - TRANSPORTATION INFORMATION

DOT Proper Shipping Name: Corrosive Solid, Acidic, Inorganic, N.O.S. (Monopersulfate Compound)
DOT Hazard Class: 8

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Packing Group: II
UN Number: 3260
Product RQ (lbs.): No limit
DOT Label: Corrosive
DOT Placard: Not required
Freight Class (package): Environmentally hazardous substance, liquid, n.o.s.

SECTION XV - REGULATORY INFORMATION

NOTE: This product is for research and development purposes.

MATERIAL IS REPORTED IN EPA TSCA INVENTORY LIST?: No

MATERIAL IS LISTED AS A CARCINOGEN/POTENTIAL CARCINOGEN IN FOLLOWING?: No

NTP ANNUAL REPORT: No **IARC GROUP I OR II:** No **OSHA 29CFR PART 1910 SUBPART Z:** No

DOES PRODUCT CONTAIN A TOXIC CHEMICAL SUBJECT TO SARA TITLE III SECTION 313 REPORTING: No

This product does not contain any toxic chemicals in quantities subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 732.

SARA TITLE III SECTION 311/312 CLASSIFICATIONS: None

SECTION XVI – OTHER INFORMATION

The above information is based upon information Vanson-HaloSource Inc. believes to be reliable and is supplied for informational purposes only Vanson-HaloSource Inc. disclaims any liability for damage which results from the use of the above information and nothing contained therein shall constitute a guarantee, warranty (including fitness for a particular purpose) or representation with respect to the accuracy or completeness of the data, the product described or their use for any specific purpose even if that purpose is known to Vanson-HaloSource Inc. The final determination of the suitability of the information, the manner of use of the information or product and potential infringement is the sole responsibility of the user.