



MATERIAL SAFETY DATA SHEET

HYTEC AQUASOFT SW

SECTION 01 – PRODUCT AND COMPANY INFORMATION

Product Identifier: Hytec AquaSoft SW

Product Use: Corrosion Inhibitor

Supplier Name: Hytec Water Management Ltd. #204-4288 Lozells Ave. Burnaby, BC, Canada
V5A 0C7

Prepared By: Hytec Water Technical Department.
Phone: (604)628-2421

Preparation Date: September.30, 2013

24-Hour Emergency Phone: (604)809-7666 or (604)628-2421

SECTION 02 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients: Phosphoric Acid – 30-60%
Zinc Chloride – 10-30%

CAS Number: Phosphoric Acid – 7664-38-2
Zinc Chloride – 7646-85-7

Synonym (s): None

SECTION 03 – HAZARD IDENTIFICATION

Inhalation: Not a likely route of exposure. Irritating, in high concentrations, to the eyes, nose, throat and lungs.

Skin Contact / Absorption: May cause severe irritation or tissue damage depending on length of exposure.

Eye Contact: Will cause eye burns and permanent tissue damage.

Ingestion: Although not a likely route of exposure, product would be corrosive to mouth, throat and stomach.

Exposure Limits: ACGIH/TLV-TWA: 1mg/m³ (Phosphoric Acid)
ACGIH/TLV-STEL: 3mg/m³ (Phosphoric Acid)
ACGIH/TLV-STEL: 1mg/m³ (Zinc Chloride fume)
AACGIH/TLV-STEL: 2mg/m³ (Zinc Chloride fume)

OSHA/PEL-TWA: 1mg/m³ (Phosphoric Acid)
OSHA/PEL-STEL: 3mg/m³ (Phosphoric Acid)
OSHA/PEL-TWA: 1mg/m³ (Zinc Chloride fume)
OSHA/PEL-STEL: 2mg/m³ (Zinc Chloride fume)

SECTION 04 – FIRST AID MEASURES

Inhalation: Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention if difficulties persist.

Skin Contact / Absorption: Remove contaminated clothing. For a large splash, flood body under a shower. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.

Eye Contact: Flush immediately with water for at least 20 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate medical attention if symptoms persist.

Ingestion: Do not induce vomiting. If conscious, washout mouth and give water to drink. Get immediate medical attention if symptoms persist.

Additional information: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

SECTION 05 – FIRE FIGHTING MEASURES

Conditions of Flammability: Not flammable

Means of Extinction: Not expected to burn. Use extinguishing media appropriate for surrounding fire.

Flash Point: >93.3 Celsius

Auto-ignition Temperature: Not applicable

Upper Flammable Limit: Not applicable

Lower Flammable Limit: Not applicable

Hazardous Combustible Products: Not flammable or combustible. May evolve oxides of carbon, oxides of phosphorous, hydrochloric acid and/or zinc fumes under fire conditions.

Special Fire Fighting Procedures: Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Explosion Hazards: Not expected to be sensitive to static discharge or mechanical impact.

SECTION 06 – ACCIDENTAL RELEASE MEASURES

Leak / Spill: Wear appropriate personal protective equipment. Ventilate area. Stop or reduce leak if safe to do so. Prevent material from entering sewers.

SMALL SPILLS: Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area.

LARGE SPILLS: Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Wash site of spillage thoroughly with water. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with local regulations.

Deactivating Materials: Not available.

SECTION 07 – HANDLING AND STORAGE

Handling Procedures: Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

Storage Requirements: Store the containers tightly closed. Store separately from oxidizers. Store in suitable labeled containers. Protect product from freezing.

SECTION 08 – PERSONAL PROTECTION AND EXPOSURE CONTROLS

Protective Equipment

Eyes: Chemical goggles, full face-shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

Respiratory: If significant mists, vapors or aerosols are generated an approved respirator is recommended. A suitable filter material would depend on amount being handled, a multi-contaminant cartridge with particulate pre-filter should be considered. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used entry into be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

Gloves: Impervious gloves of chemically resistant material (rubber, neoprene, nitrile) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Clothing: Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Footwear: Impervious boots of chemically resistant material should be worn at all times.

Engineering Controls

Ventilation Requirements: Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other: Keep an eye wash fountain and safety shower available and in close proximity to work area.

SECTION 09 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Odor and Appearance: Clear, colorless solution with no odor

Odor Threshold: Not applicable

Specific Gravity (Water=1): 1.56-1.60 at 25 Celsius

Vapor Pressure (mm Hg, 20 Celsius): Same as water

Vapor Density (Air-1): Not available

Evaporation Rate: Not available

Boiling Point: >100 Celsius

Freeze/Melting Point: -20 Celsius

PH: < 1.0 at 25 Celsius (neat)

Water/Oil Distribution Coefficient: Not available

Bulk Density: 13.3 lb./gal

% Volatiles by Volume: 0

Solubility in Water: Complete

Molecular Formula: Not available

Molecular Weight: Not available

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Incompatibility: Contact with strong oxidizers and strong alkalines may cause heat generation, toxic vapors, boiling, splattering, fires and/or explosions. Avoid contact with metals.

Hazardous Products of Decomposition: Oxides of carbon, oxides of phosphorous, hydrochloric acid, zinc oxide.

Polymerization: Hazardous polymerization will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Irritancy: Highly irritating to skin and eyes with contact.

Sensitization: This product is not expected to be a sensitizer.

Chronic/Acute Effects: No other effects expected other than what is listed in Section 3.

Synergistic Materials: Not available

Animal Toxicity Data: LD50(Oral, Rat): 3,500mg/kg (phosphoric acid)

LD50(Dermal, Rabbit): 1,260mg/kg (phosphoric acid)

Carcinogenicity: None of the substances in this product are listed as carcinogens by IARC NTP or ACGIH.

Reproductive Toxicity: Not available

Teratogenicity: None known

Mutagenicity: Not available

SECTION 12 – ECOLOGICAL INFORMATION

Fish Toxicity: LC50 (96 hrs, Inland Silverside): >5,000mg/L

Biodegradability: Not available

Environmental Effects: Based on hazard characterization, the potential environmental hazard is moderate. This product is toxic to fish and other water organisms. Do not discharge directly into lakes, ponds, streams, waterways, or public water supplies.

SECTION 13 – DISPOSAL CONSIDERATION

Waste Disposal: Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

SECTION 14 – TRANSPORT INFORMATION

TDG Classification

Class: 8

Group: III

PIN Number: UN3264

Other: Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

SECTION 15 – REGULATORY INFORMATION

WHMIS Classification: E

NOTE: THE PRODUCT LISTED ON THIS MSDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS MSDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

NSF Certification: Product is certified under NSF/ANSI Standard 60 for corrosion and scale control at a maximum dosage of 20/mg/L. Zinc levels in finished drinking water not to exceed 2.0mg/L.

SECTION 16 – OTHER INFORMATION

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / MSDS coordinator

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution initiative, Hytec Water Management Ltd. And its associated companies require, as a condition of sale, that you forward the attached Material Safety Data Sheet(s) to all affected employees, customers, and end-users. Hytec Water Management Ltd. will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service or technical service department.

Corporate Head Office:

**#204-4288 Lozells Ave
Burnaby, British Columbia
V5A 0C7
Canada
www.hytecwater.com**

24-Hour Emergency Number: (604)628-2421