

# STERLING WATER TECHNOLOGIES LLC

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: CP 30 - Chloride

**Zinc Chloride**

Intended Use:

HMIS Hazard Ratings

Health 3

Fire 0

Reactivity 0

Manufacturer: Sterling Water Technologies LLC  
114 W. Seventh Street, Suite 3  
Columbia, TN 38401

Telephone: (800) 426-2428

Emergency Phone: CHEMTREC: (800) 424-9300

MSDS Date of Preparation: 08/13/07

Prepared by: Denese A. Deeds, CIH Industrial Health & Safety Consultants, Inc. Woodbridge, CT 203-929-3473

**Distributed By:**  
**SAL Chemical**  
**3036 Birch Drive**  
**Weirton, WV 26062**  
**304-748-8200**

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Zinc Chloride	7646-85-7	50-70%
Water	7732-18-5	30-50%

### 3. HAZARDS IDENTIFICATION

This product is a clear, colorless liquid with a slight odor.

#### EMERGENCY OVERVIEW

DANGER!

Corrosive. Causes burns. Inhalation of mists may cause mucous membrane and respiratory irritation and possibly nasal ulceration. May be harmful or fatal if swallowed. Prolonged inhalation exposure to mists or fumes may cause lung damage.

### 4. FIRST AID MEASURES

**Eye:** Immediately flush victim's eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get immediate medical attention.

**Skin:** Immediately remove contaminated clothing and wash skin thoroughly with soap and water for at least 15 minutes. Get medical attention. Launder clothing before re-use. Discard items like shoes that cannot be thoroughly decontaminated.

**Ingestion:** Do Not induce vomiting. Rinse mouth with water and give one glass of water to drink. Never give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

**Inhalation:** Remove victim to fresh air. If breathing is difficult have qualified person administer oxygen. If not breathing, administer CPR. Get immediate medical attention.

### 5. FIRE FIGHTING MEASURES

**Flashpoint:** None

**Flammable Limits:** LEL: Not applicable UEL: Not applicable

**Autoignition Temperature:** None

**Extinguishing Media:** Use media appropriate for surrounding fire. Cool fire exposed containers and structures with water.

**Unusual Fire or Explosion Hazards:** None known.

**Special Fire-Fighting Instructions:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

**Hazardous Combustion Products:** Thermal decomposition may yield oxides of zinc, zinc chloride fumes and hydrogen chloride.

**Explosion Data (sensitivity to mechanical impact or static discharge):** None known.

## 6. ACCIDENTAL RELEASE MEASURES

Evacuate spill area and keep unprotected personnel away. Wear appropriate protective clothing as described in Section 8. Dike and contain liquid. Collect with an inert absorbent and place in appropriate containers for disposal. Wash spill area with water. Prevent spill from entering sewers and water courses. Report releases as required by local, state and federal authorities.

## 7. HANDLING AND STORAGE

**Handling:** Prevent contact with the eyes, skin and clothing. Avoid breathing mists or aerosols. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

Do not reuse containers. Empty containers retain product residues can be hazardous. Follow all MSDS precautions when handling empty containers.

**Storage:** Store in a cool, dry, well ventilated area away from incompatible materials. Protect from physical damage.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines:

Zinc Chloride (fume)	1 mg/m <sup>3</sup> PEL-TWA 1 mg/m <sup>3</sup> TWA, 2 mg/m <sup>3</sup> STEL TLV
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**Engineering Controls:** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

**Respiratory Protection:** In operations where exposure levels are exceeded, a NIOSH approved respirator with dust/mist cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

**Skin Protection:** Wear impervious gloves such as rubber or neoprene to prevent skin contact.

**Eye Protection:** Safety goggles and face shield recommended.

**Other:** Long-sleeved clothing and long pants recommended to avoid skin contact. Eye wash and safety shower should be available in the work area.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance And Odor:** Clear, colorless liquid with a slight odor.

<b>Physical State:</b> Liquid	<b>Boiling Point:</b> >100°C
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<b>Vapor Density:</b> Same as water	<b>Vapor Pressure:</b> Same as water
<b>Solubility In Water:</b> Soluble	<b>Evaporation Rate:</b> Same as water
<b>Specific Gravity:</b> 1.75-1.83	<b>pH:</b> <1
<b>Melting Point:</b> Not applicable	<b>Octanol/Water Coefficient:</b> Not determined
<b>VOC Content:</b> 0%	

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under normal storage and handling conditions.

**Incompatibility:** Strong bases, strong oxidizing agents, cyanides, sulfides.

**Hazardous Decomposition Products:** When heated to decomposition emits toxic oxides of zinc, zinc chloride fumes and hydrogen chloride.

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### HEALTH HAZARDS:

**Ingestion:** Ingestion may cause severe mucous membrane and gastrointestinal irritation with chemical burns. May cause nausea, vomiting, diarrhea, abdominal pain, chest pain, shortness of breath, profuse sweating, low blood pressure, tachycardia (rapid heartbeat), pulmonary edema, seizures, shock and death.

**Inhalation:** Inhalation of mists may cause irritation of the nose throat and upper respiratory tract. High concentrations may cause lung damage (pulmonary edema).

**Eye:** May cause severe irritation or burns with pain and tearing. Corneal damage with permanent blindness is possible.

**Skin:** May cause severe irritation or burns.

**Sensitization:** This material is not known to cause sensitization.

**Chronic:** Repeated exposure to zinc chloride may cause dermatitis, boils, eye conjunctivitis and gastrointestinal disturbances. Prolonged inhalation exposure to mists or fumes may cause lung damage.

**Carcinogenicity:** None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.

**Mutagenicity:** None currently known.

**Medical Conditions Aggravated by Exposure:** Employees with pre-existing eye, skin and respiratory disease may be at increased risk from exposure.

### Acute Toxicity Values:

Zinc Chloride: LD50 oral rat 350 mg/kg.

## 12. ECOLOGICAL INFORMATION

No ecotoxicity data is available for the product.

Zinc Chloride: LC50 daphnia magna 0.798 mg/L/48 hr. LC50 bluegill sunfish 4.2 mg/L/96 hr. LC50 rainbow trout 0.136 mg/L/96 hr

## 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental regulations.

## 14. TRANSPORT INFORMATION

### Dot Hazardous Materials Description:

Proper Shipping Name: Zinc Chloride Solution

UN Number: UN1840

Hazard Class/Packing Group: 8, III

Labels Required: Corrosive

Note: Containers with 1400 lbs or more of this product must also be identified as RQ.

## 15. REGULATORY INFORMATION

**CERCLA:** Releases above the reportable quantity of 1400 lbs must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA Hazard Category (311/312):** Acute Health, Chronic Health

**SARA 313:** This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): Zinc chloride (zinc compound) 50-70%

**EPA TSCA Inventory:** All of the ingredients in this product are listed on the EPA TSCA Inventory.

### CANADA:

This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.

**Canadian CEPA:** All the components of this product are listed on the Canadian DSL.

**Canadian WHMIS Classification:** Class E (Corrosive material)

## 16. OTHER INFORMATION

**NFPA Rating:** Health = 3      Fire = 0      Reactivity = 0

**HMIS Rating:** Health = 3      Fire = 0      Reactivity = 0

### NOTICE

This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. Sterling Water Technologies LLC shall not be held liable for any damage resulting from handling or from contact with the above product. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.