

# Material Safety Data Sheet

Origin Zinc 10%

## Section 1 – PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Origin Zinc 10%

**TRADE NAMES:** None

**SYNONYMS:** Zinc Chloride (in chelated form)

**CHEMICAL FAMILY:** Inorganic Salt

**MSDS CREATION DATE:** January, 2001

**MSDS CURRENT REVISION DATE:** 06/02/08

**DISTRIBUTED BY:** Winfield Solutions LLC, PO Box 64589 St. Paul, MN 55164-0589

**EMERGENCY:** CHEMTREC (24 Hour Emergency Response) 1-800-424-9300

## Section 2 – COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredient Name                  | CAS Number | % wt    |
|----------------------------------|------------|---------|
| Zinc Chloride (in chelated form) | 7646-85-7  | 21      |
| Ammonia (chelating agent)        | 1336-21-6  | Trace   |
| Water                            | 7732-18-5  | Balance |

## Section 3 – HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** A light tan liquid with slight ammonia odor that may cause irritation to the skin, eyes and respiratory tract. Harmful if swallowed. **NFPA Rating:** Health = 2, Fire = 0, Reactivity = 0

### POTENTIAL HEALTH EFFECTS:

**INHALATION:** May cause irritation of the nasal membranes and upper respiratory tract. Severe overexposure to zinc chloride may result in fluid in the lungs (pulmonary edema).

**SKIN CONTACT:** Can cause irritation.

**EYE CONTACT:** Contact may cause eye injury.

**INGESTION:** May irritate or cause burns to digestive tract. Significant exposures may cause effects such as fever, nausea, vomiting, diarrhea, stomach pain, blood in the stool, inability to urinate, low blood pressure, kidney damage, liver damage and convulsions.

**LONG-TERM AND/OR DELAYED EFFECTS:** Continued and prolonged overexposure may result in digestive disorders, kidney and/or liver damage. Significant overexposures may result in lung damage.

### CARCINOGEN STATUS:

**OSHA:** Not listed    **NTP:** Not listed    **IARC:** Not listed

## Section 4 – FIRST AID MEASURES

**INHALATION:** Remove from exposure area to fresh air immediately. If breathing is difficult, oxygen may be administered by a qualified operator. Keep person warm and at rest. Get medical attention for irritation or any other symptom.

**SKIN CONTACT:** Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and rinse with water until no evidence of product remains. Get medical assistance for irritation, burns or any other symptom.

**EYE CONTACT:** Flush eyes immediately with large amounts of water or normal saline solution, occasionally lifting upper and lower lids until no evidence of product remains (approximately 15-20 minutes). Cover with sterile bandages. Get medical attention immediately.

**INGESTION:** Dilute the product immediately with large amounts of water or milk. Do not induce vomiting unless directed to do so by a doctor or other medical professional. If vomiting occurs, keep head lower than hips to prevent introduction of fluid into the lungs. Get medical attention immediately.

**NOTE TO PHYSICIAN:** The decision as to whether the severity of poisoning requires administration of any antidote and actual dose required should be made by qualified medical personnel. The antidote for poisoning from zinc salts is calcium disodium edetate (oral or IV). Dreisbach, Handbook of Poisoning, 12th Edition.

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## Section 5 – FIRE-FIGHTING MEASURES

**FLASH POINT:** None

**AUTOIGNITION TEMPERATURE:** Not applicable

**FIRE AND EXPLOSION HAZARD:** No additional hazards other than decomposition products if solutions are evaporated to dryness.

**EXTINGUISHING MEDIA:** Use any standard agent suitable for surrounding structural fire or for other chemicals that may be involved.

**FIREFIGHTING:** Wear appropriate self-contained positive pressure breathing apparatus. Move product from fire area if you can without risk. Avoid breathing vapors; keep upwind. Dike area to prevent runoff and contamination of water sources.

**HAZARDOUS COMBUSTION PRODUCTS:** Thermal decomposition may include toxic and hazardous ammonia and oxides of zinc and sulfur.

## Section 6 – ACCIDENTAL RELEASE MEASURES

**IN CASE OF SPILL:** Absorb small spills with sand or another absorbent. Dike larger spills and pump into containers for reuse and/or disposal. Do not allow product and/or runoff to enter sewers or waterways.

## Section 7 – HANDLING AND STORAGE

**STORAGE:** Store in a cool, dry place. Protect from exposure to fire. Avoid brass fittings on equipment and vessels.

**NORMAL HANDLING:** Avoid contact with skin and eyes. Do not breathe product mists. Wash thoroughly after handling.

## Section 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE LIMITS

| INGREDIENT              | OSHA PEL            | ACGIH TLV   | Other values |
|-------------------------|---------------------|---|--------------|
| Zinc chloride (as fume) | 1 mg/m <sup>3</sup> | 1 mg/m <sup>3</sup><br>2 mg/m <sup>3</sup> (STEL) | -----        |

\* = ACGIH Biological Exposure Value \*\* = AIHA Workplace Environmental Exposure Level

**VENTILATION:** Not normally required.

**EYE PROTECTION:** Wear safety glasses. Use of splash shields or safety goggles is recommended if product mists are generated.

**CLOTHING:** Wear trousers and long sleeved shirt to avoid skin contact.

**GLOVES:** Wear rubber or other impervious gloves to prevent contact with this product.

**RESPIRATOR:** If product mists may be generated, use a NIOSH approved organic mist air-purifying respirator.

**EMERGENCY WASH FACILITIES:** Where there is the potential that an employee's eyes and/or skin may be exposed to this product, the employer should provide an eye wash fountain and safety shower or another source of running water within the immediate work area.

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## Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

**DESCRIPTION:** Light tan liquid  
**MOLECULAR FORMULA:** Mixture  
**MOLECULAR WEIGHT:** Mixture  
**pH:** 8.0 - 8.7  
**MELTING POINT:** Not determined  
**BOILING POINT:** Not determined  
**VAPOR PRESSURE:** Not determined  
**VAPOR DENSITY:** Not determined  
**WATER SOLUBILITY:** Miscible  
**SOLVENT SOLUBILITY:** Not determined  
**SPECIFIC GRAVITY:** 1.24

## Section 10 – STABILITY AND REACTIVITY

**REACTIVITY:** Stable under normal temperatures and pressures.  
**CONDITIONS TO AVOID:** Avoid contact with strong oxidizers and/or excessive heat. Do not allow spilled material to contaminate water sources. Avoid storage  
**INCOMPATIBILITIES:** Contact with strong oxidizers should be avoided.  
**HAZARDOUS DECOMPOSITION:** Thermal decomposition products may include toxic and hazardous NH<sub>x</sub>, and oxides of zinc and sulfur.  
**POLYMERIZATION:** Has not been reported to occur under normal temperatures and pressures.

## Section 11 – TOXICOLOGICAL INFORMATION

Toxicological information listed below is for Zinc Chloride (anhydrous).

**ACUTE TOXICITY:**  
LD<sub>50</sub>: 350 mg/kg, oral, rat  
LD<sub>50</sub>: 329 mg/kg, oral, mouse

## Section 12 – ECOLOGICAL INFORMATION

**ACUTE AQUATIC TOXICITY:** No data available  
**DEGRADABILITY:** No data available  
**LOG BIOCONCENTRATION FACTOR (BCF):** No data available  
**LOG OCTANOL/WATER PARTITION COEFFICIENT:** No data available

## Section 13 – DISPOSAL CONSIDERATIONS

Observe all federal, state and local regulations when disposing of this product.

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## **Section 14 - TRANSPORT INFORMATION**

This product is not regulated in surface transportation in non-bulk quantities. The information below is for shipments exceeding 4,760 pounds in a single package, container, truck or railcar.

**US DOT SHIPPING NAME:** Environmentally hazardous substances, liquid, n.o.s. (zinc chloride), 9, UN 3082, PG III, RQ

**US DOT HAZARD CLASS:** 9 – Miscellaneous hazardous material.

**US DOT IDENTIFICATION NUMBER:** UN 3082

**US DOT PACKING GROUP:** III

**US DOT LABEL CODE:** 9

**REPORTABLE QUANTITY:** ~4,760 pounds as formulated based upon RQ for zinc chloride of 1,000 pounds.

## **Section 15 – REGULATORY INFORMATION**

**TSCA STATUS:** All ingredients are listed on the TSCA Inventory of Chemical Substances.

**OTHER TSCA ISSUES:** None

**SARA 311 CLASSIFICATION:** Acute hazard.

**SARA 313 NOTIFICATION:** Zinc compounds are subject to the reporting requirements of Section 313 of Title III of 49 CFR 372 of the Emergency Planning And Community Right-To-Know Act.

**CERCLA RQs and TPQs:** Zinc chloride has a reportable quantity (RQ) of 1,000 lbs.

**CALIFORNIA PROPOSITION 65:** No ingredients found on the Propositions 65 list.

**CANADIAN INVENTORY:** Not determined. Fertilizers are regulated under the Fertilizers Act.

**WHMIS:** This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. Classification: D1B

## **Section 16 – ADDITIONAL INFORMATION**

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. Customers are responsible for compliance with local, state and federal regulations that may be pertinent in the storage, application and disposal of this product.