

**SECTION 1 - PRODUCT IDENTIFICATION**

**Product Identifier:** ZRC Zero VOC Liquid  
**Product Class:** Water-based Galvanizing Compound  
**Product Identification Number (PIN):** 40002-40004  
**Manufacturer's Name:** ZRC Worldwide  
**Address:** 145 Enterprise Drive, Marshfield, Ma 02050  
**Emergency Telephone No.:** 781-319-0400 Bus. Hrs.  
**Chemtrec 24 hrs.** 800-424-9300  
**Date of Preparation:** January 1, 2007

**SECTION 2 - HAZARDOUS INGREDIENTS**

HAZARDOUS INGREDIENTS	% (wt)	ACGIH TLV (mg/M <sup>3</sup> )	OSHA PEL (mg/M <sup>3</sup> )
Low Molecular Weight Silicate CAS # 12627-14-4	10	None Established	TWA (RF) 5 TWA (TD) 15
Alkaline Hydroxide (CAS # 1310-65-2)	1	None Established	None Established

RF = Respirable Fraction TD = Total Dust

**SECTION 3 - PHYSICAL DATA - FIRE AND EXPLOSION DATA**

**Physical State:** Liquid      **Water Solubility:** Complete      **Odor/Appearance:** Milky-White Liquid  
**Vapor Pressure:** 17.5 mm Hg @ 25°C      **Vapor Density:** 0.67 (water)      **Evaporation Rate:** Greater than 1  
**Boiling Point:** 100°C (212°F)      **Flash Point:** Not Applicable      **Specific Gravity:** 1.19 @ 25 °C  
**Percent Volatile:** 83.5 (%vol)      **Wgt./Gallon:** 9.2 Lbs. @ 25 °C.      **Autoignition Temp.:** Not Applicable  
**Flammability Limits in Air:** Not Applicable  
**Shipping:** DOT, IMDGC, IATA - Nonregulated  
**VOC:** 0 g/l (0 lb/gal)  
**Extinguishing Media:** Use appropriate media for combustibles that may be stored in same area. This product will not burn.  
**Unusual Fire and Explosion Hazards:** None.  
**Special Fire Fighting Procedures:** None.

**SECTION 4 - PHYSICAL HAZARDS**

**Stability:** Stable      **Hazardous Polymerization:** Will not occur  
**Materials and Conditions to Avoid:** None known. This material is considered to be stable under its normal handling and storage conditions.  
**Hazardous Combustion Products:** None  
**Sensitivity to Impact:** None.  
**Sensitivity to Static Discharge:** None

**SECTION 5 - HEALTH HAZARD DATA**

**Threshold Limit Value:** Not Determined      **OSHA PEL:** Mixture (See Section 2)  
**Routes of Entry:** Skin Contact, Skin Absorption, Eye Contact, Inhalation and Ingestion.  
**Medical Conditions Generally Aggravated by Exposure:** None known.  
**Effects of Acute Exposure to Product:** Inhalation of dried down material may cause irritation of the upper respiratory system. Skin contact may cause irritation with discomfort or rash. Eye contact with the liquid causes discomfort, tearing or blurring of vision. During welding and burning operations performed on the dried product once mixed with its zinc dust component, hazardous decomposition products may be evolved from the dried film, these may include but not be limited to Zinc Oxides. Excessive inhalation of these fumes may produce symptoms known as "Fume Fever" and "Zinc Shakes" among other effects. Consult Physician.  
**Effects of Chronic Overexposure to Product:** None known.  
**Irritancy of Product:** Eye, Skin, Nose, Throat and Lung irritant.  
**Carcinogenicity:** None      **Teratogenicity:** None  
**Mutagenicity:** None      **Reproductive Toxicity:** None      **Synergistic Products:** None known

**EMERGENCY AND FIRST AID PROCEDURES:**

**Inhalation:** Remove to fresh air. Keep warm and quiet. Give artificial respiration if required. Get medical assistance.  
**Eyes:** Wash eyes immediately with large amounts of water for at least 15 minutes. Take to physician for medical attention.  
**Skin:** Wash contact area promptly with soap and water. Promptly remove wet clothing. Consult physician if irritation persists.  
**Ingestion:** Do not induce vomiting without medical advice. Contact a physician, emergency room or Poison Center immediately. Never give anything by mouth to an unconscious person. Observe all rules of good hygiene during and after use. Wash thoroughly before smoking or eating.

**TOXICOLOGICAL INFORMATION:**

**Animal Data:** Oral LD50: 16,540 mg/kg in rats. This compound is a skin and eye irritant. Toxic effects described in animals from short exposures by inhalation, ingestion or skin contact include nonspecific effects such as weight loss and irritation. No animal test reports are available to define carcinogenic, mutagenic, embryotoxic or reproductive hazards.

**SECTION 6 - SPECIAL PROTECTION INFORMATION****Personal Protective Equipment:**

**Gloves:** Neoprene gloves and aprons should be used to prevent prolonged or repeated skin contact. Use protective creams when skin contact is likely.

**Respirator:** In outdoor or open areas, wear only properly fitted, NIOSH/MSHA approved respirators capable of filtering dust particulates during and after application unless air monitoring demonstrates vapor/mist levels are below acceptable limits. In areas of restricted ventilation, wear only properly fitted, NIOSH/MSHA approved respirators designed to remove a combination of vapors and dust particulates during and after application unless air monitoring demonstrates vapor/mist levels are below acceptable limits. In confined areas, use approved air line type respirators or hoods. Follow respirator manufacturer's directions for respirator use.

**Eye:** Safety goggles with unperforated side shields or face shield should be used where splashing into eyes is possible. An eye wash fountain should also be available in areas where splashing is possible. When large amounts of material are used, a safety shower should be available.

**Footwear:** Wear chemical resistant boots with steel toes.

**Clothing:** Wear neoprene apron over well fitting clothes. Loose fitting clothes should not be worn. Remove and wash or discard contaminated clothing.

**Ventilation Engineering Controls:** Work place areas require exhaust ventilation in accordance with OSHA regulation 29 CFR Part 1910.107d to maintain vapor levels below the TLV (especially during spraying, misting or heating). Use an approved high efficiency respirator of the full face canister type (for limited time and concentrations), air supplied type of self-contained respirators (for extended exposures involving high or unknown vapor concentrations or for non-routine or emergency conditions). Exhaust levels should be maintained at least at 100 lfm.

**SECTION 7 - SPECIAL PRECAUTIONS - SPILL OR LEAK PROCEDURES**

**Leak and Spill Procedure:** For massive spills, evacuate the area. Dike and contain spills with dry, inert materials (sand, earth, etc.) . Recover as much of the free liquid as possible for disposal and use an absorbent to pick up the residue. Avoid discharging paint directly into a sewer or surface waters. Spilled material may be slippery on floors.

**Waste Disposal:** Dispose of the absorbed material or the free waste liquid in dry containers according to Local, State and Federal regulations for Hazardous Wastes. Dispose of all materials including empty cans according to Local, State and Federal regulations. Do not incinerate. Do not flush into sewers. It is recommended that solid waste be landfilled only at approved hazardous disposal sites using approved contractors.

**Handling Procedures and Equipment:** Areas of use should have good ventilation. Prohibit smoking in these areas. Do not apply by electrostatic spray equipment unless equipment has been designed for use with such coatings by the equipment manufacturer.

**Storage Requirements:** Store between 0 °C (32 °F) and 43 °C (109 °F). Do not puncture, drag or slide container.

**Other Precautions:** Do not take internally. Keep away from children. This product is for industrial use only.

**SECTION 8 - REGULATORY INFORMATION****U.S. Federal Regulations**

TSCA Inventory Status: Individual components of this mixture have been reported and Included, as necessary.

Title III Hazard Classifications Sections 311, 312 (40CFR 370)

Acute: Yes    Chronic: No    Fire: No    Reactivity: No    Pressure: No

Title III Section 313 Information (40CFR 372)

This product does not contain a chemical which is listed in Section 313 above de minimis concentrations.

**Lists**

Extremely Hazardous Substance: No

CERCLA Hazardous Substance: No

Toxic Chemicals: No

**Workplace Classifications**

This product is considered non-hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).

This product is not a "controlled product" under the Canadian Workplace Materials Information System (WHMIS).

*Disclaimer: While the data and suggestions contained herein are based on information we believe to be reliable, it is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers. Use of this product on inappropriate surfaces or in inappropriate applications may create other unanticipated hazards.*

**THIS PRODUCT IS A MIXTURE. MSDS FILES ON THE INDIVIDUAL COMPONENTS WERE USED TO DERIVE THE INFORMATION CONTAINED HEREIN.**