

**ZRC GALVANIZING COMPOUND (AEROSOL) NFPA HAZARD RATING**  
**MATERIAL SAFETY DATA SHEET**



**SECTION 1 - PRODUCT IDENTIFICATION**

**SECTION 2 - HAZARDOUS INGREDIENTS**

Product Identifier: ZRC Cold Galvanizing Compound  
 Product Class: Esterified Epoxy Based Zinc-Rich Metal Primer  
 Product Identification Number (PIN): 10000  
 Manufacturer's Name: ZRC Worldwide  
 Address: 145 Enterprise Drive, Marshfield, MA 02050  
 Emergency Telephone No.: 781-319-0400 Business Hours  
 Chemtrec 24 hrs. 1-800-424-9300  
 Date of Preparation: January 1, 2008

HAZARDOUS INGREDIENTS	% (wt)	LEL	ACGIH TLV ppm (mg/M <sup>3</sup> )	OSHA PEL ppm (mg/M <sup>3</sup> )	V.P. MMHG @ 20°C
*Zinc (CAS # 7440-66-6)	44	na	Not Established	TWA (RF) 15 mppcf (5) TWA (TD) 50 mppcf (15)	na
*Acetone (CAS # 67-64-1)	20	2.6	TWA 500 STEL 750	TWA 1000 (2400)	185.00
Propane (CAS # 74-98-6)	10	2.2	TWA 1000	TWA 1000 (1800)	5585.20
Petroleum Distillates (CAS # 8052-41-3)	7	0.7	TWA 100	TWA 500 (2900)	2.00
*Methyl Ethyl Ketone (CAS # 78-93-3)	6	1.8	TWA 200 STEL 300	TWA 200 (590)	85.00
N-Butane (CAS # 106-97-8)	5	1.8	TWA 1000	Not Established	879.10
Zinc Oxide (CAS # 1314-13-2)	1	na	TWA (RF) (2) STEL (RF) (10)	TWA (RF) (5) TWA (TD) (15)	na

Aerosol Contents under pressure of 55+/-5 psi

\*This CAS No. is subject to the reporting requirements of Section 313 of SARA Title III and of 40 CFR 372.

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

Physical State: Liquid      Water Solubility: Insignificant      Odor and Appearance: Grey with Odor of aliphatic and aromatic hydrocarbons  
 Vapor Pressure: 50 @ 21°C      Vapor Density: Heavier than Air      Evaporation Rate: Faster than Ether  
 Boiling Range: 01-396 °F      Flash Point: <20 °F TOC      Specific Gravity: 1.20 @ 25 °C  
 Percent Volatile: 48 (wt)      Autoignition Temp.: not determined      Weight per Gallon: 10.01 Lbs. @ 25 °C.  
 Reactivity in Water: See Sec.4 Flammability Limits in Air: UEL 12.8% (vol) LEL 1.1% (vol)

Flammability Classification:

DOT - UN #1950 - Consumer Commodity - Hazard Class ORM-D / OSHA - Flammable Class IA, OSHA Class 29(1910-106a)

Label: Extremely Flammable      RSP. CFR 16-1500.3(6)(V)

VOC: Less than 30% by weight (516 gm/L (4.3 lbs/gal)).

Extinguishing Media: Approved Class B Fire Extinguisher, foam or dry chemical. DO NOT USE WATER! Combustion in a limited amount of air can generate toxic Carbon Monoxide. Use full protective equipment and self-contained breathing apparatus for respiratory protection in fighting fires in enclosures. In a fire situation, or when the material is heated, it becomes a highly flammable liquid with a moderate explosion hazard. Once ignited, this product will burn readily in air.

Unusual Fire and Explosion Hazards: Keep containers closed tightly. Isolate from heat, electrical equipment, sparks and open flame. Closed containers may explode when exposed to extreme heat. Zinc present in a finely divided form is hazardous when atomized in air and, if sparked, explosion is possible. Application to hot surfaces requires special precautions. During emergency conditions, overexposure to decomposition products (gaseous oxides of Carbon and Nitrogen) may cause health hazard. Symptoms may not be immediately apparent. Obtain medical attention. Heavier than air vapors may flow along surfaces to distant ignition sources and flash back. Moisture and acid contamination can result in Hydrogen gas evolution, causing cans to bulge with increased pressure. Cans so deformed should not be moved, opened or punctured. Call (781) 319-0400. See also Sections 4 and 5.

Special Fire Fighting Procedures: DO NOT USE WATER IN ANY FORM.

Water may be used to cool containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat, but care should be taken to prevent water access to wet paint and spray residues. See also Section 7.

**SECTION 4 - PHYSICAL HAZARDS**

Stability: Stable      Hazardous Polymerization: Will not occur

Materials and Conditions to Avoid: This material is considered to be stable under its normal handling and storage conditions. It can react violently with strong oxidizing agents such as chlorine and oxygen, as well as water, weak acids and concentrated acids. Store in dry areas away from oxidizing agents (chlorine, oxygen), all acids, alkalis and water. Avoid dusting and accumulations of spray residues.

Hazardous Combustion Products: Thermal degradation, water and alkali contact may produce hydrogen gas accompanied with additional risks of explosion and fire. May produce fumes of zinc oxide and the oxides of carbon and nitrogen when heated to decomposition. Acid contact will produce hydrogen.

Sensitivity to Impact: Impact w/sparking may produce discharge of contents with fire or explosion hazard.

**SECTION 5 - HEALTH HAZARD DATA**

Threshold Limit Value: 100 ppm OSHA PEL: Mixture (See Section 2)

Routes of Entry: Skin Contact, Skin Absorption, Eye Contact, Inhalation and Ingestion.

Medical Conditions Generally Aggravated by Exposure: Respiratory conditions, dermatitis and other skin afflictions, conditions of the central nervous system.

Effects of Acute Exposure to Product: Propane is an asphyxiant. Solvents contained in this mixture are central nervous system depressants. Symptoms of overexposure include drowsiness, dizziness, headache, slurred speech, intoxication with euphoria and/or depression leading to stupor and unconsciousness. Nose, throat and lung irritation may occur from inhalation. Skin contact may cause defatting and dermatitis. Eye contact with the liquid causes tears, burning, irritation, conjunctivitis. Ingestion will cause

poisoning and may be fatal; avoid aspiration if ingested. Do not induce vomiting. Lung contact may cause chemical pneumonitis. During welding and burning operations, hazardous decomposition products may be evolved from the dried film, these may include but not be limited to Zinc Oxides, as well as gaseous oxides of Carbon and Nitrogen. 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: Reports have associated repeated and prolonged overexposure to solvents with permanent damage to the brain and central nervous system.

Irritancy of Product: Eye, Skin, Nose, Throat and Lung irritant. Sensitization to Product: May cause allergic skin reaction.  
 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 paint-wet clothing. Consult physician if irritation persists.

Ingestion: Do not induce vomiting without medical advice. Contact a physician, emergency room or Poison Center immediately. Observe all rules of good hygiene during and after use. Wash thoroughly before smoking or eating.

**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 organic 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 fpm. All ventilation equipment should be explosion-proof, and any tools used in the area should be of the non-sparking type.

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

Leak and Spill Procedure: For massive spills, evacuate the area. For all spills, eliminate ignition sources. Dike and contain spills with dry, inert materials (sand, earth, etc.). Eliminate all sources of moisture and do not use water in clean-up operations. 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. Do not flush spills with water. Use non-sparking tools only. 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. Containers may explode if heated even when empty. It is recommended that solid waste be landfilled only at approved hazardous disposal sites using approved contractors.

Handling Procedures and Equipment: Use only non-sparking tools. Areas of use should have good ventilation and all sources of open flame and high heat should be excluded. Prohibit smoking in these areas. Ensure sufficient ventilation to prevent accumulation of heavy vapors in low lying areas of sumps. Material is electrically conductive.

Storage Requirements: This extremely flammable liquid should be stored in a cool, clean, dry, well-ventilated, fire resistant storage room or in a solvent storage cabinet that meets OSHA requirements. Do not store in direct sunlight. Store only in cans with identifying labels that indicate the flammability of the material. Store large quantities only in buildings in compliance with OSHA 1910.105. Areas of storage for this material should have good ventilation and all sources of open flame and high heat should be excluded. Prohibit smoking in these areas. Ensure sufficient ventilation to prevent accumulation of heavy vapors in low lying areas or sumps. Do not store above 49 degC. Do not puncture, drag or slide container.

Other Precautions: Any deformed cans should not be moved, opened or punctured. Call (781) 319-0400. Do not take internally. Keep away from children. Empty container may contain extremely flammable residues and explode if heated.

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.