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Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

Section I - Product Identification

A solution of zinc sulfate, PVA, acetic acid and glycerin in alcohol and water.

Section II - Hazards Identification

Danger: Highly flammable liquid and vapor. Keep away from heat, sparks, open flames and hot surfaces. No smoking. Keep container tightly closed. Use only non-sparking tools. Take precautions against static discharge. Wear protective clothes and eye protection. In case of skin contact immediately remove all contaminated clothing. Rinse with water or shower. In case of fire, use fire extinguishers approved for alcohol fires.

Safety Ratings

Health: Hazardous *Flammability:* Highly flammable liquid and vapor *Reactivity:* Slight *Contact:* Slight

Recommended safety equipment: safety goggles, lab coat and proper gloves

Storage: Keep cool, away from sources of ignition in a well ventilated area.

NFPA Ratings

Health = 2 Flammability = 3 Reactivity = 1



Potential Health Effects

The toxicology of this compound have not been completely examined. It is presumed that the toxicity of this item is similar to that of other zinc compounds.

Inhalation: Alcohols are absorbed through the mucous membranes and will produce irritation as well as the same effects as ingestion.

Ingestion: Inhalation will produce CNS disturbance, dizziness, photophobia, headache, stupor, coma and death.

Skin contact: Alcohols are absorbed through the skin. Repeated contact with alcohols causes defatting of the skin with resultant irritation and flaking. Repeated contact with zinc sulfate can cause systemic poisoning.

Eye contact: Irritating and corrosive.

Chronic Exposure: Unknown,

Aggravation of preexisting conditions: Impaired kidney and liver function may be aggravated by exposure to alcohols and/or zinc sulfate. Preexisting eye, skin, and respiratory conditions may also be aggravated. Methanol has shown genetic toxicity in some animals.

Section III - Composition/Information on Hazardous Components

| Ingredients | CAS# | OSHA Pel | ACGIH TLV | Other Limits | % |
|----------------|-----------|-----------------------------|-----------------------------|--------------|----------|
| Ethanol | 64-17-5 | 1000 ppm (TWA) | 1000 ppm (TWA) | | 27% v/v |
| Zinc sulfate | 7733-02-0 | ----- | ----- | | 7.5% w/v |
| Acetic acid | 64-19-7 | 25 mg/m ³ (TWA) | 25 mg/m ³ (TWA) | | 4.5% v/v |
| Glycerine | 59-81-5 | 10 mg/m ³ (mist) | 10 mg/m ³ (mist) | | 1.9% w/v |
| Isopropanol | 67-63-0 | 400 ppm (TWA) | 400 ppm (STEL) | | 1.5% v/v |
| Methyl alcohol | 67-56-1 | 200 ppm (TWA) | 200 ppm (TWA) | | 1.5% v/v |

Section IV - First Aid Measures

Inhalation: Remove from source of exposure and get immediate medical attention. Be prepared to assist breathing.

Ingestion: Do not induce vomiting if patient is unconscious or extremely drowsy. Otherwise, administer 2 glasses of water and induce vomiting. Get immediate medical attention even if symptoms improve.

Skin Contact: In case of skin contact, remove contaminated clothing and flush with water. Wash affected area with soap and water. Get medical advice if irritation persists.

Eye Contact: In case of eye contact, flush with water for at least 15 minutes and get immediate medical attention.

Section V - Fire Fighting Measures

Flash point: 28 °C (83 °F) TCC

Flammable Limits (for ethanol): LEL 3% UEL 19%

Fire: Water is ineffective against alcohol fires but may be used to cool adjacent containers.

Fire Extinguishing Media: Alcohol foam, carbon dioxide or dry chemical.

Special information: Pyrolysis will release zinc compounds.

Section VI - Accidental Release Measures

Remove all sources of ignition, absorb with a suitable absorbent and store for disposal or recycling.

Section VII - Handling and Storage

Store in a cool, well ventilated place. Store in a closed container, away from open flames or other sources of ignition.

Section VIII - Exposure Control/Personal Protection

Airborne Exposure Limits: See section III.

Ventilation System: Usually not required. When required, Refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" for details about ventilation.

Personal Respirator: Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.

Skin protection: Protective gloves are required.

Eye Protection: Laboratory safety goggles or similar products are required.

Section IX - Physical and Chemical Properties

Boiling Point: 88 °C (190 °F)

Vapor pressure (mm Hg): Unknown

Vapor Density (air = 1): 1.6

Appearance and Odor: A clear (or slightly hazy), colorless liquid with the characteristic odor of alcohol.

Density: 1.02 g/ml

Evaporation Rate (Water = 1): 1

Solubility: Infinitely miscible with water

Section X - Stability and Reactivity

Stability: Freezes at low temperature.

Hazardous Decomposition Products: Zinc compounds.

Hazardous polymerization: Will not occur.

Incompatibilities: Oxidizers.

Conditions to avoid: heat, flame and sources of ignition.

Section XI - Toxicological Information

Chronic consumption of ethanol is believed to be linked to liver disease, cancer and birth defects.

Cancer lists

| <u>Ingredient</u> | <u>Known Carcinogenicity? NTP?</u> | | <u>Anticipated?</u> | <u>IARC Category</u> |
|-------------------|------------------------------------|----|---------------------|----------------------|
| Acetic Acid | no | no | no | none |
| Ethanol | no | no | no | none |
| Glycerine | no | no | no | none |
| Isopropanol | no | no | no | 3 |
| Methanol | no | no | no | none |
| Zinc Sulfate | no | no | no | none |

Section XII - Ecological Information

Environmental Fate: Not biodegradable.

Environmental Toxicity: Toxic to aquatic organisms.

Ethanol evaporates quickly and is not expected to bioaccumulate. Ethanol is removed from the air by dry and liquid adsorption. The half-life for ethanol in the atmosphere is one to ten days. Zinc sulfate will bioaccumulate.

Section XIII - Disposal Considerations

Incineration at a licensed chemical disposal facility is the preferred disposal method. Local governments often restrict the amounts of alcohol and other flammable liquids that may be flushed down drain. Dispose of contents and container in accord with all applicable regulations.

Section XIV - Transportation information

DOT/IATA Shipping name: Ethanol Solution Hazard Class: 3 Packaging Group III
Hazard Label: Flammable liquid UN Identification Number: UN1170

Bottles smaller than 32 Fl. Oz. are eligible to be shipped under ORM-D or limited quantity exemptions [49 CFR section 173.150(b)(2), 173.150(C) and IATA Y341].

Section XV - Regulatory Information

Chemical Inventory Status

| <u>Ingredient</u> | <u>TSCA</u> | <u>EC</u> |
|-------------------|-------------|-----------|
| Acetic Acid | Yes | Yes |
| Ethanol | Yes | Yes |
| Glycerine | Yes | Yes |
| Isopropanol | Yes | Yes |
| Methanol | Yes | Yes |
| Zinc Sulfate | Yes | Yes |

Federal, State and International Regulations

| <u>Ingredient</u> | <u>SARA 302</u> | | <u>SARA 313</u> | | <u>RCRA</u> | <u>TSCA</u> | |
|-------------------|-----------------|------------|-----------------|-----------------|---------------|-------------|--------------------|
| | <u>RQ</u> | <u>TPQ</u> | <u>List</u> | <u>Category</u> | <u>261.33</u> | <u>8(D)</u> | <u>Ca. Prop 65</u> |
| Acetic Acid | No | No | No | No | No | No | No |
| Ethanol | No | No | No | No | No | No | No |
| Glycerine | No | No | No | No | No | No | No |
| Isopropanol | No | No | Yes | No | No | No | No |
| Methanol | No | No | Yes | No | U154 | No | Yes |
| Zinc Sulfate | No | No | No | Zinc Cmpd | No | No | No |

Chemical Weapons Convention: No TSCA 12(b): No CDTA: Yes

SARA 311/312: Acute: Yes, Chronic: Yes, Flammable: Yes

Section XVI - Other Information

This information is believed to be correct but is not warranted as such, nor does it purport to be all inclusive.

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