MSDS For Total-Fix
Catalog # 2807A & 2807-05

Medical Chemical Corp.
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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 1 - Product Identification

A solution of zinc sulfate, acetic acid and alcohols in water.

Section II - Composition/Information on Hazardous Components

Ingredients	*CAS#*	*OSHA Pel*	*ACGIH TLV*	*Other Limits*	*%*
acetic acid	64-19-7	25 mg/m^3 (TWA)	25 mg/m^3 (TWA)		1% v/v
ethanol	64-17-5	1000 ppm (TWA)	1000 ppm (TWA)		30% v/v
methyl alcohol	67-56-1	200 ppm (TWA)	200 ppm (TWA)		1.7% v/v
isopropanol	67-63-0	400 ppm (TWA)	400 ppm (STEL)		1.7% v/v
zinc sulfate	7733-02-0	----------	----------		5% w/v

Section III - Hazards Identification

Overview: Toxic by inhalation absorption or ingestion. Can not be made nontoxic. Methanol is a cumulative poison and death has been reported for ingestion of less than 30 milliliters. Causes CNS depression, headache, intoxication, dilation of the pupils, convulsions nausea, and dizziness. Unconsciousness and death may result. Methanol intoxication may produce visual disturbances and blindness. Zinc sulfate is slightly toxic

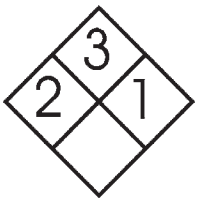
Safety Ratings

Health: Hazardous *Flammability:* Flammable *Reactivity*: Slight *Contact:* Slight
Recommended safety equipment: safety goggles, lab coat and proper gloves

Storage: Room Temperature away from sources of ignition.

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 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 closed container, away from open flames or other sources of ignition.

Section VIII - Exposure Control/Personal Protection

Airborne Exposure Limits: See section II

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
Density: 1.02 g/ml
Evaporation Rate (Water = 1): 1
Solubility: Infinitely miscible with water
Appearance and Odor: A clear (or slightly hazy), colorless liquid with the characteristic odor of alcohol.

Section X - Stability and Reactivity

Stability: Freezes at low temperature.

Hazardous Decomposition Products: Zinc compounds.

Hazardous polymerization: Will not occur.

Incompatibilities: Oxidixers.

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

Ingredient	*Known Carcinogenicity?*	*NTP?*	*Anticipated?*	*IARC Category*
Ethanol	no	no	no	none
Methanol	no	no	no	none
Isopropanol	no	no	no	3
Zinc Sulfate	no	no	no	none
Acetic Acid	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. The material 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

Many localities restrict the amount of zinc compounds that may be flushed down the drain. Insure compliance with all government regulations.

Section XIV - Transportation information

DOT Shipping name: Ethyl alcohol solution *Hazard Class:* 3 *Packaging Group:* II
DOT Hazard Label: Flammable liquid *DOT 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) and 173.150(C)].

Section XV - Regulatory Information

Chemical Inventory Status

Ingredient	TSCA	EC
Ethanol	Yes	Yes
Methanol	Yes	Yes
Isopropanol	Yes	Yes
Zinc Sulfate	Yes	Yes
Acetic Acid	Yes	Yes
Glycerine	Yes	Yes

Federal, State and International Regulations

	SARA 302		SARA 313		RCRA	TSCA
Ingredient	RQ	TPQ	List	Category	261.33	8(D)
Isopropanol	No	No	Yes	No	No	No
Methanol	No	No	Yes	No	U154	No
Ethanol	No	No	No	No	No	No
Zinc Sulfate	No	No	No	Zinc Cmpd	No	No
Acetic Acid	No	No	No	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 waranteed as such, nor does it purport to be all inclusive.

Revision Date: Apr. 22, 2009