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## Section I - Product Identification

**Product:** A solution of reagent alcohol, zinc sulfate, polyvinyl alcohol, acetic acid and glycerine in water. Reagent alcohol is a mixture of ethyl alcohol, isopropanol and methanol.

**Intended Uses:** An in-vitro diagnostic reagent intended to be used as a fixative for parasites in stool.

**Uses advised against:** Intended for laboratory use. Reagent alcohol is toxic and can not be made non-toxic.

**Country of origin:** United States.

### Manufacturer Identification

Medical Chemical Corp.  
19430 Van Ness Ave.  
Torrance, CA 90501

Customer Service: Phone (310)787-6800  
Email: Customerservice@med-chem.com  
FAX (310)787-4464

### Emergency Telephone Number

CHEMTREC Emergency Response Telephone Number: (800)424-9300. 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 II - Hazard Identification

This item is considered hazardous by 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

**Flammable liquid:** Category 2 (H225). Highly flammable liquid and vapor.

**Eye damage/eye Irritation:** Category 2A (H319). Causes serious eye irritation.

**Acute toxicity (Oral):** Category 4 (H302). Harmful if swallowed.

**Acute toxicity (Inhalation):** Category 4 (H332). Harmful if inhaled.

**Acute toxicity (Dermal):** Category 5 (H313). May be harmful in contact with skin.

**Specific target organ toxicity (single exposure):** (H336). May cause drowsiness or dizziness

**Signal word:** Danger. Highly flammable liquid and vapor.

### Hazard statements

According to the harmonized classification and labeling required by OSHA and the EU, this substance is a highly flammable liquid and vapor, causes serious eye irritation and may cause drowsiness or dizziness. 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.

### Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P242 Use only non-sparking tools.

P243 Take precautions against static discharge.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash hands thoroughly after handling

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective clothes and eye protection.

P405+P235 Store in a well-ventilated place. Keep cool.

### Safety Ratings

**Health:** Hazardous **Flammability:** Highly Flammable **Reactivity:** Unstable if heated **Contact:** Slight

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

### NFPA Ratings

Health = 2. Can cause temporary incapacitation or residual injury.  
Flammability = 3. Can be ignited under almost all ambient temperatures.  
Reactivity = 1. Normally stable about high temperatures make unstable..

### Potential Health Effects

The toxicology of this compound has not been completely examined. It is presumed that the toxicity of this item is similar to other aliphatic alcohols. Inhalation or contact with ethanol may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Exposure to methanol vapor causes eye irritation, headache, fatigue and drowsiness. High concentrations can produce central nervous system depression and optic nerve damage. Can be absorbed through skin. Swallowing methanol may cause death or eye damage.

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

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

*Skin contact:* Alcohols are absorbed through the skin. Repeated contact causes defatting of the skin with resultant irritation and flaking.

*Eye contact:* May be irritating.

*Chronic Exposure:* Unknown.

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

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## Section III - Composition/Information on Components

Ingredient	CAS #	EC/List No.	%
Ethanol	64-17-5	200-662-2	15 - 30% w/w
Zinc Sulfate	7733-02-0	231-793-3	5 - 10% w/w
Acetic Acid	64-19-7	616-485-2	2 - 8% w/w
Glycerine	59-81-5	200-289-5	5 - 4% w/w
Isopropanol	67-63-0	200-661-7	1 - 2% w/w
Methanol	67-56-1	200-659-6	1 - 2% w/w

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## Section IV - First Aid Measures

General Advice: Contact a doctor if symptoms persist

Inhalation: Remove from source of exposure and get medical attention for any breathing difficulty.

Ingestion: Do not induce vomiting. Aspiration of into the lungs may prove fatal. 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 develops.

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

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## Section V - Fire Fighting Measures

*Fire Extinguishing Media:* Alcohol foam, carbon dioxide or dry chemical. Water is ineffective against alcohol fires but may be used to cool adjacent containers.

*Specific Hazards:* Risk of vapor traveling to source of ignition and flashing back. Risk of exploding containers when heated. Vapor in air may form explosion risk.

*Special information:* Pyrolysis will release toxic carbon monoxide, formaldehyde and methanol.

*Special protective gear and precautions:* Self contained breathing apparatus and protective gear recommended.

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## Section VI - Accidental Release Measures

Use personal protective gear, remove all sources of ignition, absorb with a suitable absorbent and dispose. Take precautions against static ignition. Should not be released into the environment.

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## Section VII - Handling and Storage

P102+P233+P403; Store in a well-ventilated place. Keep container tightly closed. Store away from open flames or other sources of ignition. Keep out of reach of children.

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## Section VIII - Exposure Control/Personal Protection

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol	1000 ppm	1000 ppm	3300 ppm
Zinc Sulfate	Not Applicable	Not Applicable	Not Applicable
Acetic Acid	25 mg/m <sup>3</sup> (TWA)	25 mg/m <sup>3</sup> (TWA)	50 ppm
Glycerine	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	Not Applicable
Isopropanol	400 ppm	400 ppm	2000 ppm
Methanol	200 ppm (skin)	200 ppm (skin)	6000 ppm

### Legend

**ACGIH:** American Conference of Governmental Industrial Hygienists.

**OSHA:** Occupational Safety and Health Administration.

**NIOSH:** National Institute for Occupational Safety and Health.

**IDLH:** Immediately dangerous to life or health.

*Ventilation System:* Local exhaust such as explosion proof chemical fume hoods are recommended. 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 recommended as part of good laboratory practice.

*Eye Protection:* Laboratory safety goggles or similar products are recommended as part of good laboratory practice.

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## Section IX - Physical and Chemical Properties

*Appearance and Odor:* A clear, colorless liquid with the sweet odor of alcohol and the acrid odor of vinegar.

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

*Flammable Limits (for methanol):* LEL 6% UEL 36.5%

*Flammable Limits (for isopropanol):* LEL 2% UEL 12%

Flash point: 28 °C (83 °F) TCC

Boiling Point: 190 °F (88 °C)

Density: 1.02 g/ml @ 22.5 °C

Evaporation Rate (water = 1): 1

Partition coefficient (n-Octanol/Water): No data

Solubility: Miscible with water

Vapor density (air = 1): 1.6

Volatile organic carbon (VOC): 283 g/l (2.4 lb/gal)

*Auto ignition temperature:* No data

*Boiling point range:* No data

*Decomposition temperature:* No data

*Melting point:* No data

*pH:* Not applicable

*Vapor pressure (mm Hg):* 24 mm @ 25 °C

*Viscosity:* No data

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## Section X - Stability and Reactivity

*Stability:* Stable under normal conditions.

Hazardous decomposition products: Pyrolysis will produce carbon monoxide, acetaldehyde and acetic acid as well as other organic compounds..

Hazardous polymerization: Will not occur.

Incompatibilities: Oxidizers.

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

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## Section XI - Toxicological Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethanol	10470 mg/kg (Rat)	No data	5,900 mg/m <sup>3</sup> /6 h (Rat)
Zinc Sulfate	2150 mg/kg (Rat)	No Data	No Data
Acetic Acid	3310 mg/kg (Rat)	No Data	2810 ppm/4 h (Mouse)
Glycerine	12600 mg/kg (Rat)	10000 mg/kg (Rabbit)	>570 mg/m <sup>3</sup> h (Rat)
Isopropanol	>4700 mg/kg (Rat)	13,000 mg/kg (Rabbit)	19,000 ppm/8h (Rat)
Methanol	5628 mg/kg (Rat)	15,800 mg/kg (Rabbit)	64,000 ppm/4h (Rat)

### Cancer lists

<i>Ingredient</i>	<i>Known Carcinogenicity?</i>	<i>NTP?</i>	<i>Anticipated?</i>	<i>IARC Category</i>
Ethanol	No	No	No	None
Zinc Sulfate	No	No	No	None
Acetic Acid	No	No	No	None
Glycerine	No	No	No	None
Methanol	No	No	No	None
Isopropanol	No	No	No	3

## Section XII - Ecological Information

Alcohols evaporates quickly and are 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.

**Environmental Fate:** Biodegradable

**Soil Mobility:** Unknown

**Hazardous to the aquatic environment, long-term hazard:** Category 4 (H413). May cause long lasting harmful effects to aquatic life

### For acetic acid

Toxicity to freshwater fish (rainbow trout):LC50 = >1000 mg/l, 96 h

Toxicity to invertebrates (water flea): EC50 = > 1000 mg/l, 48 h

Toxicity to freshwater algae (Skeletonema costatum): EC50 = 73 mg/l, 72 h

### For ethyl alcohol

Toxicity to freshwater fish (fathead minnow):LC50 = 14200 mg/l, 96 h

Toxicity to invertebrates (water flea): EC50 = 9268 mg/l, 48 h

Toxicity to freshwater algae (Chlorella vulgaris): EC50 = 275 mg/l, 72 h

### For glycerine

Toxicity to freshwater fish (rainbow trout):LC50 = 54,000 mg/l, 96 h

Toxicity to invertebrates: No data

Toxicity to freshwater algae: No data

### For isopropanol

Toxicity to freshwater fish (blue gill):LC50 = 9640 mg/l, 96 h

Toxicity to invertebrates (water flea): EC50 = 1000 mg/l, 48 h

Toxicity to freshwater algae (Pseudokirchneriella subcapitata): EC50 = >1000 mg/l, 72 h

### For methanol

Toxicity to freshwater fish (blue gill):LC50 = 15,400 mg/l, 96 h

Toxicity to invertebrates (water flea): EC50 = 18,260 mg/l, 96 h

Toxicity to freshwater algae (Pseudokirchneriella subcapitata): EC50 = 22,000 mg/l, 72 h

### For zinc sulfate, heptahydrate

Toxicity to freshwater fish (fathead minnow):LC50 > 10 mg/l, 96 h

Toxicity to invertebrates (water flea): EC50 = 1.4 mg/l, 48 h

Toxicity to freshwater algae (Chlorella vulgaris): EC50 = 64.8 mg/l, 72 h

## Section XIII - Disposal Considerations

Disposal 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 the drain. The usual rule is that the effluent exiting the building must not be flammable. Dispose of contents and container in accord with all applicable regulations.

## Section XIV - Transportation Information

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

**DOT**

Proper shipping name: Ethanol solution UN1170 Hazard Class: 3  
Packaging Group: II DOT Hazard Label: Flammable liquid

**IATA**

Proper shipping name: Ethanol solution UN1170 Hazard Class: 3  
Packaging Group: II DOT Hazard Label: Flammable liquid

**IMDG**

Proper shipping name: Ethanol solution UN1170 Hazard Class: 3  
Packaging Group: II DOT Hazard Label: Flammable liquid EMS-No: F-E, S-D

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**Section XV - Regulatory Information**

**Chemical Inventory Status**

<u>Ingredient</u>	<u>TSCA EC</u>	
Ethanol	Yes	Yes
Zinc Sulfate	Yes	Yes
Glycerine	Yes	Yes
Acetic Acid	Yes	Yes
Methanol	Yes	Yes
Isopropanol	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>
Ethanol	No	No	No	No	No	No	No
Zinc Sulfate	No	No	No	No	No	No	No
Glycerine	No	No	No	No	No	No	No
Acetic Acid	No	No	No	No	No	No	No
Isopropanol	No	No	Yes	No	No	No	No
Methanol	No	No	Yes	No	U154	No	Yes

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

SARA 311/312

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

 This product contains methanol which is known to the state of California to cause birth defects or other reproductive harm. For more information go to [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).

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**Section XVI - Other Information**

This information is believed to be correct at the time of publication but is not guaranteed as such, nor does it purport to be all inclusive. Medical Chemical Corp. assumes no liability for the accuracy or completeness of the information. The user assumes all responsibility for compliance with federal, state and local laws.

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