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Section I - Product Identification

Product: 80% v/v ethyl alcohol hand sanitizer with glycerin and hydrogen peroxide.

Intended Uses: A hand sanitizer intended to be used to kill pathogenic organisms.

Uses advised against: Not for use on environmental surfaces.

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.

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 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.

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

P280 Wear protective clothes and eye protection.

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

Safety Ratings

Health: Slightly hazardous *Flammability:* Highly Flammable *Reactivity:* Stable *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 = 1. Can cause significant irritation.

Flammability = 4. Will vaporize and readily burn at normal temperatures.

Reactivity = 0. Stable

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 that of other aliphatic alcohols. The ethanol is denatured with *t*-butyl alcohol and denatonium benzoate to prevent consumption.

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

Ingestion: Ingestion of small amounts will cause gastrointestinal distress and vomiting. Ingestion of larger amounts 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.

Section III - Composition/Information on Components

Ingredients	CAS #	EC/List No.	%
Ethanol	64-17-5	64-17-5	80.0% v/v
Glycerine	59-81-5	200-289-5	1.8% w/v
Hydrogen peroxide	7722-84-1	200-289-5	0.125% w/v

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 into the lungs may produce death. Get immediate medical attention even if symptoms improve.

Skin Contact: In case of skin contact get medical advice if irritation develops.

Eye Contact: In case of eye contact, flush with water and get medical attention.

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.

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.

Section VII - Handling and Storage

P403+P233+P102; 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.

Section VIII - Exposure Control/Personal Protection

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol	1000 ppm	1000 ppm	3300 ppm
Glycerine	15 mg/m ³ (mist)	10 mg/m ³ (mist)	Not Applicable

Hydrogen peroxide	1 ppm TWA (air)	1 ppm TWA (air)	Not Applicable
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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 not usually 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 recommended as part of good laboratory practice.

Eye Protection: Laboratory safety goggles or similar products are not required but recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

Appearance and Odor: A clear colorless liquid with a sweet odor. Has the characteristic odor of alcohol.

Flash point: 20 °C (68 °F) TCC
Flammable Limits (for ethanol): LEL 3% UEL 19%

Flash point: 20 °C (68 °F) TCC
Boiling Point: 172 °F (78 °C)
Density: 0.853 g/ml @ 22.5 °C
Evaporation Rate (Ethanol = 1): 1
Partition coefficient (n-Octanol/Water): No data
Solubility: Infinitely miscible with water
Vapor density (air = 1): 1.6
Volatile organic carbon (VOC): 682 g/l (5.69 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): 52 @ 20 °C
Viscosity: No data

Section X - Stability and Reactivity

Stability: Stable under normal conditions.
Hazardous Decomposition Products: Nothing unusual.
Hazardous polymerization: Will not occur.
Incompatibilities: Oxidizers.
Conditions to avoid: heat, flame and sources of ignition.

Section XI - Toxicological Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethanol	10470 mg/kg (Rat)	20 ml/kg (Rat)	125 mg/l/4h (Rat)
Glycerine	12600 mg/kg (rat)	Not Applicable	570 mg/m ³ /1 hr
Hydrogen peroxide	No Information	No Information	No Information

Cancer lists

Ingredient	Known Carcinogenicity?	NTP?	Anticipated?	IARC Category
Ethanol	No	No	No	None
Glycerine	No	No	No	None
Hydrogen peroxide	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

Environmental Toxicity: Low

Component	Freshwater Fish	Water Flea	Freshwater algae
Ethanol	LC50 100 mg/l 96 h	EC50 100 mg/L 48 h	EC50 100 mg/l 72 h
Glycerine	LC50 59 ppm 96 h	No Information	No Information
Hydrogen peroxide	No Information	No Information	No Information

Section XIII - Disposal Considerations

Incineration at a licensed chemical disposal facility is the preferred disposal method for flammable liquids. Local governments often restrict the amounts of alcohol and other flammable liquids that may be flushed down the drain. Besides any specific limit on alcohol, 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

DOT Shipping name: Ethanol 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 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>
Ethanol	Yes	Yes
Glycerine	Yes	Yes
Hydrogen peroxide	Yes	Yes

Federal and State Regulations

<u>Ingredient</u>	<u>SARA 302</u>	<u>SARA 313</u>	<u>RCRA</u>	<u>TSCA</u>	<u>Ca. Prop 65</u>		
	<u>RQ</u>	<u>TPQ</u>	<u>List</u>	<u>Category</u>	<u>261.33</u>	<u>8(D)</u>	
Ethanol	No	No	No	No	No	No	No
Glycerine	No	No	No	No	No	No	No
Hydrogen peroxide	No	No	No	No	No	No	No

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

SARA 311/312

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

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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