Medical Chemical Corp.
19430 Van Ness Ave.
Torrance, CA 90501
Customer Service: Phone (310)787-6800
FAX (310)787-4464
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 I - Product Identification
Ethyl alcohol denatured with acetone and methyl isobutyl ketone.

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

<table>
<thead>
<tr>
<th>Health: Hazardous</th>
<th>Flammability: Extremely flammable solution and vapor</th>
<th>Reactivity: Slight</th>
<th>Contact: Slight</th>
</tr>
</thead>
</table>

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 = 4     Reactivity = 0

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 other aliphatic alcohols.

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 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

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS#</th>
<th>OSHA Pel</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>64-17-5</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
<td></td>
<td>64%</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>1000 ppm (TWA)</td>
<td>750 ppm (TWA)</td>
<td></td>
<td>5.9%</td>
</tr>
<tr>
<td>Methyl isobutyl ketone</td>
<td>108-10-1</td>
<td>100 ppm (TWA)</td>
<td>50 ppm (TWA)</td>
<td>75 ppm (STEL)</td>
<td>1%</td>
</tr>
</tbody>
</table>

Section IV - First Aid Measures

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

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 irritation, remove contaminated clothing and wash affected area with soap and water. Get medical
advice if irritation develops.

Eye Contact: In case of eye contact, flush with water and get medical attention if irritation continues.
Section V - Fire Fighting Measures

Flash point: 4°C (40°F) TCC
Flammable Limits (for ethanol): LEL 3%  UEL 19%
Explosion: Not Normally an explosion hazards.

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

Special information: Pyrolysis will release toxic oxides such as carbon monoxide.

Section VI - Accidental Release Measures

Remove all sources of ignition, absorb with a suitable absorbent (such as paper towels) and dispose.

Section VII - Handling and Storage

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

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 not required but 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

Boiling Point: 133°F
Vapor pressure (mm Hg): 52 @ 20°C
Vapor Density (air = 1): 2

Density: 0.80 g/ml
Evaporation Rate (Ethanol = 1): 1
Solubility: Infinitely miscible with water

Appearance and Odor: A clear colorless liquid with the characteristic odor of alcohol and ketone.

Section X - Stability and Reactivity

Stability: Freezes at very low temperature.

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

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

Ingredient | Known Carcinogenicity? | NTP? | Anticipated? | IARC Category
--- | --- | --- | --- | ---
Ethanol | no | no | no | none
Acetone | no | no | no | none
Methyl Isobutyl Ketone | no | no | no | none

Section XII - Ecological Information

Environmental Fate: Biodegradable.

Environmental Toxicity: None expected.
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.

**Section XIII Disposal Considerations**

The preferred disposal method is incineration. Many localities restrict the amount of alcohol that may be flushed down the 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 II
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**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Acetone</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>Yes</td>
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</table>

**Federal, State and International Regulations**

<table>
<thead>
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<th>Ingredient</th>
<th>SARA 302</th>
<th>SARA 313</th>
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</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>RQ No</td>
<td>TPQ No</td>
</tr>
<tr>
<td>Acetone</td>
<td>RQ No</td>
<td>TPQ No</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>RQ No</td>
<td>TPQ Yes</td>
</tr>
<tr>
<td>Chemical Weapons Convention</td>
<td>No U161</td>
<td>Yes U161</td>
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</table>

<table>
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<tr>
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<th>TPQ</th>
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<tbody>
<tr>
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<tr>
<td>Methyl Isobutyl Ketone</td>
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<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>U002</td>
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<td>No</td>
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<tr>
<td>Chemical Weapons Convention</td>
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<td>No</td>
<td>No</td>
<td>U161</td>
<td>No</td>
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<td>No</td>
</tr>
</tbody>
</table>

SARA 311/312: Acute: Yes, Chronic: Yes, Fire: 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.

Revision Date: Apr. 28, 2015