70% ISOPROPYL ALCOHOL

MATERIAL SAFETY DATA SHEET

Date Issue: Jan 23, 1995

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

Product Identification

Manufacturer's Name & Address:
Medical Chemical Corporation
19430 Van Ness Ave.
Torrance, CA 90501

Phone: 1-800-424-9394
Fax: (310) 767-4464

Product Name: Isopropyl Alcohol, 70%
Product Code: 1058 and 1051E
Product Description: A solution of water in isopropanol.

<table>
<thead>
<tr>
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<th>1</th>
<th>4</th>
<th>0</th>
<th>None</th>
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</thead>
<tbody>
<tr>
<td>Health</td>
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<tr>
<td>Flammability</td>
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<td>Reactivity</td>
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<td>Physical Hazard</td>
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Section 1 - Shipping Data

DOT Shipping Name:* Isopropanol
DOT Hazard Class: Flammable liquid
DOT Identification: UN 1219

Tel. # for information: (310) 629-4304
Emergency Tel. #: (800) 424-9300

Prepared by: P.B.

Section 2 - Hazardous Ingredients / Identity Information

<table>
<thead>
<tr>
<th>CHEMICAL COMPONENTS</th>
<th>CAS#</th>
<th>% v/v</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
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</thead>
<tbody>
<tr>
<td>isopropanol</td>
<td>67-63-0</td>
<td>70%</td>
<td>400 ppm</td>
<td>400 ppm</td>
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</table>

Section 3 - Physical / Chemical Characteristics

Boiling Point: 180°F
Vapor Pressure (mm Hg and Temperature): 33 mm @ 20°C
Vapor Density (A/R=1): 2.1
Appearance and Odor: Clear solution. Characteristic isopropanol odor.

Section 4 - Fire and Explosion Hazard Data

Flash Point (Method Used): 71°F (TCC)
Flammability Limits: LEL 2.0% UEL 13%
Extinguishing Media: Alcohol type foam, carbon dioxide or dry chemical
Special Fire Fighting Procedures: Water is ineffective against alcohol fires but may be used to cool adjacent containers.
Unusual Fire and Explosive Hazards: Pyrolysis will release toxic gases such as carbon monoxide.

Section 5 - Reactivity Data

Stability: Stable
Conditions to Avoid: Heat and flame
Incompatibility (Materials to Avoid): Store away from oxidizers.
Precautions to be taken in Handling and Storage: Store at room temperature.

Section 6 - Health Hazard Data

Routes of Entry
Inhalation?  yes
Skin Absorption?  yes
Ingestion?  yes
Carcinogenicity?  no
NTP?  no
IARC Monographs?  no
OSHA Regulated?  yes

Health Hazards (Acute and Chronic): Slightly toxic. Ingestion may cause drowsiness and loss of consciousness. Stomach cramps, pain, vomiting and diarrhea may also occur. Widespread and prolonged exposure may result in absorption of harmful amounts, particularly in infants. Inhalation of low concentrations may cause mild irritation of nose and throat. Concentrations above the TLV may cause local redness, dryness and cracking of the skin.

Signs and Symptoms of Exposure: Symptoms of overexposure include: CNS disturbance, dizziness, photophobia, headache, coma and death.
Isopropanol is a good defatting agent and prolonged exposure to the skin will cause redness, drying and irritation.
Medical Conditions Generally Aggravated by Exposure: Impaired kidney and liver function may be aggravated by exposure to alcohols.
Preexisting eye, skin and respiratory conditions may also be aggravated.

Emergency and First Aid Procedures:
Seek medical assistance for further treatment, observation and support if necessary,
Eye Contact:  Flush with water and get medical attention if irritation persists.
Skin contact:  Remove contaminated clothing and flush skin with water. Get medical attention if irritation persists.
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.

Section 7 - Precautions For Safe Handling and Use

Steps to be Taken In Case of Spill Or Release: Remove all sources of ignition. Absorb with a suitable absorbent (such as a paper towel) and dispose.
Waste Disposal Methods: The preferred disposal method is incineration. Many localities restrict the amount of isopropanol that may be flushed down the drain. Insure compliance with all government regulations.

Section 8 - Control Measures

Respiratory Protection (Specify Type): Generally not needed.
Ventilation: Ordinary mechanical ventilation is usually sufficient.
Protective Gloves: Usually not required
Eye Protection: Not required but laboratory safety goggles or similar products are recommended as part of good laboratory practice.
Other Protective Clothing And Equipment: Usually not required.
Hygienic Work Practices: Wash well after handling, especially before eating and smoking.