

**24 HOUR EMERGENCY ASSISTANCE**  
**CHEMTREC 800-424-9300**  
**HAZARD RATING**

4-EXTREME	Health Hazard	3
3-SEVERE	Flammability	3
2-MODERATE	Reactivity	0
1-SLIGHT		
0-MINIMAL		

**IMPORTANT**  
**MATERIAL SAFETY DATA SHEET**

READ CAREFULLY BEFORE USING CHEMICAL  
 OSHA requires that this form be kept on file.  
**Product No.** KM 974 M  
**Product Name** ETHYL ALCOHOL, 70%  
 IN WATER, (DENATURED)

**SECTION I NAME**

<b>Chemical Synonyms</b>	Proprietary Solvent
<b>Formula</b>	C <sub>2</sub> H <sub>5</sub> OH
<b>C.A.S. No.</b>	64-17-5

**SECTION II HAZARDOUS INGREDIENTS OF MIXTURES**

Principal Hazardous Component(s)	%	P.E.L.	TLV Units
Ethyl Alcohol C.A.S. #64-17-5	>9	1000 ppm (TWA)	1000 ppm (TWA)
Isopropyl Alcohol C.A.S. #67-63-0	>9	400 ppm (TWA)	400 ppm (TWA)
*Methyl Isobutyl Ketone C.A.S. #108-10-1	.9	50 ppm(TWA)	50 ppm(TWA)
*Methyl Alcohol C.A.S. #67-56-1	5	200 (skin)	200(skin)
Water C.A.S. #7732-18-5	30%	N/A	N/A

★ chemical subject to the reporting requirements of SARA Title III.

**SECTION III PHYSICAL DATA**

<b>Melting Point (°F)</b>	<-114°C	<b>Specific Gravity (H<sub>2</sub>O=1)</b>	0.80
<b>Boiling Point (°F)</b>	78°C	<b>Percent Volatile by Volume (%)</b>	100%
<b>Vapor Pressure (mm Hg)</b>	47 @ 25°C	<b>Evaporation Rate (Ether =1)</b>	<1
<b>Vapor Density (Air=1)</b>	>1		
<b>Solubility in Water</b>	Miscible		
<b>Appearance &amp; Odor</b>	Clear-water white, alcoholic odor.		

**SECTION IV FIRE AND EXPLOSION HAZARD DATA**

<b>Flash Point (Method Used)</b>	13° closed cup	<b>Flammable Limits in Air % by Volume</b>	<b>Lower</b>	<b>Upper</b>
			3.3	19.0
<b>Extinguisher Media</b>	Water spray, dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool.			

**Special Firefighting Procedures**  
 In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

**Unusual Fire and Explosion Hazards**  
 Flammable! Autoignition temperature 422°C. Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back.

D.O.T. Denatured alcohol, 3, NA1987, PGII

**SECTION V HEALTH HAZARD DATA**

**Threshold Limit Value**  
 See Section II

**Effects of Overexposure**  
 Toxic due to denaturants. Acute: Irritation to eyes, skin, lungs and GI tract. Narcosis, nausea, vision impairment. Chronic: Dermatitis. Blindness due to presence of methanol. Kidney and liver damage.

**Emergency and First Aid Procedures**  
**Skin:** Remove any contaminated clothing. Wash skin with soap and water from at least 15 minutes. Get medical attention if irritation develops or persists. **Eyes:** Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately. **Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. **Ingestion:** If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician immediately.

**SECTION VI REACTIVITY DATA**

<b>Stability</b>	<b>Conditions to Avoid</b>
Stable <input checked="" type="checkbox"/> Unstable <input type="checkbox"/>	Avoid heat and ignition sources.
<b>Incompatibility (Materials to Avoid)</b>	Strong oxidants, silver salts, halogen halides, alkali metals, metal hydrides.
<b>Hazardous Decomposition Products</b>	Carbon Oxides
<b>Hazardous Polymerization</b>	<b>Conditions to Avoid</b>
May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/>	None

**SECTION VII SPILL OR LEAK PROCEDURES**  
**Steps to be Taken in Case Material is Released or Spilled**  
 Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Small spills may be absorbed on paper towels and evaporated in a fume hood. Allow enough time for fumes to clear hood, then ignite paper in a suitable location away from combustible materials. Large spills contain and recover liquid when possible or absorb with vermiculite, dry sand, earth or similar material. Scoop up with non-sparking tool and place in a closed container.

**Waste Disposal Method**  
 Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Can be liquid incinerated in RCRA-approved combustible chamber or absorb with vermiculite, dry sand, earth, or similar material. Scoop up with non-sparking tools, place in closed container, and dispose in an approved facility. Do not flush to the sewer.

**SECTION VIII SPECIAL PROTECTION INFORMATION**

<b>Respiration Protection (Specify Type)</b>	Organic cartridge or self-contained.			
<b>Ventilation</b>	Local Exhaust	X	Special	-----
	Mechanical (General)	X	Other	-----
<b>Protective Gloves</b>	Vinyl or Rubber	<b>Eye Protection</b>	Goggles	
<b>Other Protective Equipment</b>	Lab coat			

**SECTION IX SPECIAL PRECAUTIONS**  
**Precautions to be Taken in Handling & Storing**  
 Keep container tightly closed when not in use.  
 Store in a cool well ventilated location.

**Other Precautions**  
 Read label on container before using. Do not wear contact lenses when working with chemicals.  
**Conditions Aggravated/Target Organs:** Persons with skin, eye, respiratory or kidney/liver disorders may be more susceptible. Liver/Kidney.

**Approved by** Steven C. Quandt **Effective Date** 11/15/94 **For laboratory use only. Not for drug, food or household use. Keep out of reach of children.**