

IMPORTANT

MATERIAL SAFETY DATA SHEET

READ CAREFULLY BEFORE USING CHEMICAL
 OSHA requires that this form be kept on file.

Product No. KM 973 M
 Product Name ETHYL ALCOHOL, 70%
 IN WATER, (DENATURED)

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

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

SECTION I	NAME
Chemical Synonyms	Proprietary Solvent
Formula	C ₂ H ₅ OH
C.A.S. No.	64-17-5

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES				
Principal Hazardous Component(s)		%	P.E.L.	TLV Units
Ethyl Alcohol	CAS# 64-17-5	60-70	1000 ppm (TWA)	1000 ppm (TWA)
Ethyl Acetate	CAS# 141-78-6	<4	400 ppm	400 ppm (TWA)
*Methyl Isobutyl Ketone	CAS# 108-10-1	<4	100 ppm(TWA)	50 ppm(TWA)
*Methyl Alcohol	CAS# 67-56-1	<4	200 ppm	200 ppm (TWA)
Water	CAS# 7732-18-5	30%	N/A	N/A

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

SECTION III PHYSICAL DATA			
Melting Point (°F)	<-114°C	Specific Gravity (H ₂ O=1)	0.8580
Boiling Point (°F)	78°C	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	47 @ 25°C	Evaporation Rate (Ether = 1)	<1
Vapor Density (Air=1)	>1		
Solubility in Water	Miscible		
Appearance & Odor	Clear-water white, alcoholic odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA				
Flash Point (Method Used)	21°C (70°F) closed cup	Flammable Limits in Air % by Volume	Lower	Upper
			3.3	19.0
Extinguisher Media	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. Ethanol, 3, UN1170, PGII

Approved by the U.S. Department of Labor "essentially similar" to form OSHA-20

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

Stability	Conditions to Avoid
Stable <input checked="" type="checkbox"/> Unstable <input type="checkbox"/>	Avoid heat and ignition sources.
Incompatibility (Materials to Avoid)	Strong oxidants, silver salts, halogen halides, alkali metals, metal hydrides.
Hazardous Decomposition Products	Carbon Oxides
Hazardous Polymerization	Conditions to Avoid
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. 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. Dispose of in accordance with all applicable Federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	Organic cartridge or self-contained.		
Ventilation	Local Exhaust	X	Special
	Mechanical (General)	X	Other
Protective Gloves	Appropriate chemical resistant gloves	Eye Protection	Goggles
Other Protective Equipment	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 4/5/2005 For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

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