

# WARD'S MATERIAL SAFETY DATA SHEET

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MSDS No. **EE 70**  
 Effective Date: **July 1, 1986**

**24 HOUR EMERGENCY ASSISTANCE**

**CHEMTREC**  
 800-424-9300  
 Day 716-226-6177  
 NYS 716-334-4222

**HAZARD RATING**

LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

**Health 1**  
**Fire 3**  
**Reactivity 0**

Product	ETHYL ALCOHOL, DENATURED*
Chemical Synonyms	Ethanol, Proprietary Solvent **
Molecular Formula	CH <sub>3</sub> CH <sub>2</sub> OH
(S) Size	500 mL, 1 liter, 4 Lt., 20 Lt.
S. No.	64-17-5 ***

## SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Ethyl Alcohol (FLAMMABLE)	89.0%	1000ppm (A1*)
Methanol (FLAMMABLE; TOXIC)	4.5%	200ppm (skin)
Ethyl Acetate (FLAMMABLE; TOXIC BY INHALATION)	4.7%	400ppm
Aliphatic Hydrocarbons (FLAMMABLE; IRRITANT)	1.0%	500ppm

## SECTION III PHYSICAL DATA

Freezing Pt. (°F)	-80°C
Freezing Pt. (°C)	-113°C
Boiling Pt. (°F)	163-174°F (74.5 to 79.5°C)
Boiling Pt. (°C)	74.5 to 79.5
Specific Gravity (Wt. @ 20/20°C)	0.795
Percent Volatile by Volume (%)	100%
Evaporation Rate (n-Butyl Ac. = 1)	4.1
Relative Density (Wt. = 1)	Ca 1.6
Stability in Water	Complete
Odor	Clear, colorless, mobile liquid; mild characteristic odor.

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (°F)	47°F (8.3°C)
Flash Point (°C)	8.3
Flammable Limits in Air	5.3 (ET-ATC) - 19.0 (ET-ATC)
Autoignition Temp. (°F)	500
Autoignition Temp. (°C)	260
Decomposition Temp. (°F)	190
Decomposition Temp. (°C)	88
Explosion Limits (Lower - Upper)	5.3 (ET-ATC) - 19.0 (ET-ATC)

## SECTION V SPECIAL FIRE AND EXPLOSION HAZARD DATA

**WATER SENSITIVE:** Water spray, carbon dioxide (CO<sub>2</sub>); dry chemical (ABC); alcohol-type, or universal-type foams.

**OXIDIZING:** Oxidizing.

**REACTIVE:** Reacts with strong oxidizing agents.

**UNSTABLE:** Stable.

**HAZARDOUS DECOMPOSITION:** Decomposes to form ethane, ethene, and carbon dioxide.

## SECTION VI SPECIAL FIRE AND EXPLOSION HAZARD DATA

**HAZARDOUS REACTION:** Reacts with strong oxidizing agents.

**HAZARDOUS POLYMERIZATION:** Polymerizes.

**HAZARDOUS DECOMPOSITION:** Decomposes to form ethane, ethene, and carbon dioxide.

## SECTION VII SPECIAL FIRE AND EXPLOSION HAZARD DATA

**HAZARDOUS REACTION:** Reacts with strong oxidizing agents.

**HAZARDOUS POLYMERIZATION:** Polymerizes.

**HAZARDOUS DECOMPOSITION:** Decomposes to form ethane, ethene, and carbon dioxide.

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

## SECTION V HEALTH HAZARD DATA

**Threshold Limited Value:** Ethyl Alcohol TWA: 1000ppm; 1900 mg/m<sup>3</sup>(AIR). Methanol TWA: SKIN 200ppm; 260 mg/m<sup>3</sup>; Ethyl Acetate TWA: 400ppm; 1400 mg/m<sup>3</sup> (AIR).

### Effects of Overexposure

**SKIN ABSORPTION:** No evidence of adverse effects from available information. **INHALATION:** May cause dizziness, drowsiness, nausea and vomiting. **SKIN CONTACT:** Dehydration of skin. **EYE CONTACT:** Causes minor irritation.

### Emergency and First Aid Procedures

**INGESTION:** Do NOT give anything by mouth to an unconscious or very drowsy person. If conscious, give two glasses of water to drink, induce vomiting. Repeat till vomit fluid is clear. Call physician immediately. **SKIN:** Flush with water. Get medical attention. **EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. **NOTES TO PHYSICIAN:** Ingestion of large quantities of this material will result in methyl alcohol poisoning.

## SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Heat, fire, ignition source.
Stability	Stable	Conditions to Avoid	
Incompatibility (Materials to avoid)	Concentrated nitric or sulfuric acid; strong oxidizing agents.		
Hazardous Decomposition Products	Thermal decomposition or burning can produce carbon monoxide and/or carbon dioxide.		
Hazardous Polymerization	May Occur		

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled:** Remove all sources of ignition, provide adequate ventilation. For small spills, dilute with water and flush to sewer with copious amounts of water or absorb on vermiculite, paper, earth or other absorbent. Burn in an approved incinerator or open pit away from buildings and people.

## SECTION VIII WASTE DISPOSAL METHOD

Dispose of in an approved incinerator or contract with a licensed waste disposal service.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respirator Protection:** For normal laboratory use at room temperatures none should be needed. If required (Specify Type):

Local Exhaust	Recommended
Mechanical (General)	Recommended
Special	No

## SECTION IX SPECIAL PRECAUTIONS

**Protective Gloves:** Rubber

**Eye Protection:** Chemical safety glasses.

**Other Protective Equipment:** Socks, apron, eye wash station, goggles, fire extinguisher, proper gloves.

**Precautions to be Taken in Handling and Storing:** Store in a cool, dry, well ventilated area, away from any fire hazard. Use with adequate ventilation. Do not take internally.

**Other Precautions:** Read label on container before using. Wash thoroughly after handling.

## SECTION X SPECIAL PRECAUTIONS

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Rev. No. **1** Date **1/2/87** Approved **[Signature]** Chemical Safety Coordinator **[Signature]**

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