

MATERIAL SAFETY DATA SHEET

(513) 860-4949

MSDS No.: EE0075
Effective Date: January 5, 2007

SECTION I		NAME		24 HOUR EMERGENCY ASSISTANCE	
Product	Ethyl Alcohol, Denatured			3 2 0 CHEMTREC 800-424-9300 Day 585-226-6177 NFPA HAZARD RATING MINIMAL SLIGHT MODERATE SERIOUS SEVERE 0 1 2 3 4	Health 1
Chemical Synonyms	Ethanol, Denatured, Anhydrous				Fire 3
Formula	Mixture.				Reactivity 0
Unit Size	up to 20 Lt.				HMIS *
C.A.S. No.	Mixture.				

SECTION II INGREDIENTS OF MIXTURES		
Principal Component(s)	%	TLV Units
Ethyl alcohol, denatured: (CAS No. 64-17-5)	90.4%	PEL/TLV 1000 ppm
Isopropyl alcohol: (CAS No. 67-63-0)	5.0%	None established.
Methyl alcohol: (CAS No. 67-56-1)	4.5%	TWA: 200 ppm; STEL: 250 ppm (skin)
DANGER! FLAMMABLE! MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. VAPOR HARMFUL.		

SECTION III PHYSICAL DATA			
Melting Point (°F)	-114°C (-173°F) *	Specific Gravity (H ₂ O = 1)	0.794 @ 60°F
Boiling Point (°F)	78°C (163-174°F) *	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	Ca 44.6 @ 68°F *	Evaporation Rate (Butyl acetate =1)	4.1
Vapor Density (Air=1)	Ca 1.59 *		
Solubility in Water	Complete.		
Appearance & Odor	Clear, colorless, mobile liquid; mild characteristic odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA				
Flash Point (Method Used)	(12.7°C) 55°F TCC.	Flammable Limits in Air % by Volume Pure Ethyl Alc.	Lower 3.3 (Et. Alc.)	Upper 19.0 (Et. Alc.)
Extinguisher Media	Water spray, carbon dioxide; dry chemical; alcohol-type, or universal-type foams.			

SPECIAL FIREFIGHTING PROCEDURES

Wear a NIOSH/MSHA-approved self-contained breathing apparatus and protective clothing. Water spray may be used to keep fire exposed containers cool.
Autoignition Temperature: 363°C (685°F)

(2004 EMERGENCY RESPONSE GUIDEBOOK, RSPA P 5800.7, GUIDE PAGE NO. 127)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapors formed from this product may travel or be moved by air currents and ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharge, or other ignition sources at location distant from handling point. **CAUTION:** Flame may not be visible in daylight. Fire or excessive heat may produce hazardous decomposition products; can react vigorously with oxidizing materials.

* Pure Ethyl alcohol

D.O.T. Ethanol, 3, UN1170, PG II, Ltd Qty ≤ 1 Lt.

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

SECTION V HEALTH HAZARD DATA	EE0075
Threshold Limited Value	Ethyl Alcohol TWA: 1000 ppm; Isopropyl alcohol: TWA: 400 ppm STEL: 500 ppm; Methyl alcohol TWA: 200 ppm STEL: 250 ppm. (ACGIH 1992-93).

Effects of Overexposure	INGESTION: Causes dizziness, drowsiness, decreased reaction, euphoria, nausea, vomiting, staggering gait, and coma. INHALATION: May cause dizziness, drowsiness, nausea and vomiting, inability to concentrate and irritation of the throat. SKIN CONTACT: Irritation and defatting of skin on prolonged contact. EYE CONTACT: May cause blindness. Target organs: Eyes, central nervous system, liver, kidneys.
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Emergency and First Aid Procedures	INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. EYES: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. SKIN: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
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SECTION VI		REACTIVITY DATA		
Stability	Unstable		Conditions to Avoid	Heat, fire, ignition source. Strong oxidizers.
	Stable	X		
Incompatibility (Materials to Avoid)		Contact with Acetyl chloride and strong oxidizing agents may react violently. Vapors may form flammable mixtures in air.		

Hazardous Decomposition Products		Thermal decomposition or burning can produce carbon monoxide and/or carbon dioxide.
Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

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. Absorb on vermiculite, paper, earth or other absorbent. Burn in an approved incinerator or open pit away from buildings and people.

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 an approved incinerator or contract with a licensed waste disposal service.
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SECTION VIII					SPECIAL PROTECTION INFORMATION					
Respiration Protection (Specify Type)		For normal laboratory use at room temperatures none should be needed with adequate room ventilation. If required work in fume hood. Do not use in confined area.								
Ventilation		Local Exhaust		Recommended.		Special		No.		
		Mechanical (General)		Recommended.		Other		Adequate to maintain below exposure limits.		
Protective Gloves		Rubber.			Eye Protection			Chemical safety goggles.		

Other Protective Equipment	Smock, apron, eye wash station, faceshield, fire extinguisher, proper gloves.
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SECTION IX SPECIAL PRECAUTIONS	
Precautions to be Taken in Handling & Storing	Store in a cool, dry, well-ventilated area, away from any fire hazard. Store separately from oxidizing materials. Wash thoroughly after handling.
Keep container tightly closed when not in use.	

Avoid breathing vapors. Use with adequate ventilation. Avoid contact with skin, eyes and clothing. Do not take internally. Remove and wash contaminated clothing.

Revision No. 10	Date 01/05/07	Approved James A. Bertsch	Chemical Safety Coordinator JAB
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