



MATERIAL SAFETY DATA SHEET

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Ethyl Alcohol, Reagent Alcohol, Anhydrous, ACS Reagent Grade
SYNONYMS: Ethanol
PRODUCT NUMBER: A158
CAS NO: See below
NIOSH/RTECS NO: Individual components listed
COMPANY INFO: *PhytoTechnology Laboratories*
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Percent	Hazardous
Ethyl Alcohol	64-17-5	89.5-91.4 %	OSHA PEL: 1000 ppm; ACGIH TLV: 1000 ppm
Isopropyl Alcohol	67-63-0	4-6 %	OSHA PEL: 400 ppm; ACGIH TLV: 400 ppm
Methyl Alcohol	67-56-1	4-6 %	OSHA PEL: 200 ppm; ACGIH TLV: 200 ppm

3. PHYSICAL & CHEMICAL PROPERTIES

Product Description: Ethyl Alcohol, Reagent Alcohol, Anhydrous, ACS Reagent Grade
Formula: N/A
Molecular Weight: N/A
Storage Temperature: RT
pH (1%): Under Development (5.0 – 6.0 suspected range)
Vapor Density: N/A
Melting Point: ~ -110 C
Specific Gravity: ~ 0.8
Solubility: Miscible with water
Appearance: Clear, colorless liquid
Odor: Characteristic of alcohol

4. HAZARDS IDENTIFICATION

Label Hazard Warnings: Extremely flammable. Toxic if swallowed. Irritating to eyes, respiratory system, and skin. Possible risk of irreversible effects. Repeated exposure may cause skin dryness or cracking. Vapors may cause drowsiness and dizziness.

Label Precautionary Statements: Keep away from sources of ignition-No smoking. Do not breathe vapor. Avoid contact with skin and eyes. Wear suitable protective clothing, gloves, and eye/face protection.

Laboratory Protective Equipment: Safety glasses, protective gloves, lab coat, and appropriate respirator.

HMIS Rating:	Health	Flammability	Reactivity	Personal Protection Equipment
	1	3	0	B
NFPA Rating:	Health	Flammability	Reactivity	Special Hazards
	1	3	0	-

Storage and Handling Precautions: Store in a tightly sealed container in a cool, dry place. Do not breathe vapors. Avoid direct contact. Wash thoroughly after handling. Keep away from ignition sources.

5. POTENTIAL HEALTH HAZARDS/ TOXICOLOGICAL INFORMATION

Toxicity:	LD ₅₀ (Oral-Rat)(mg/Kg):	7060 – Ethyl Alcohol
	LD ₅₀ (Oral-Rat)(mg/Kg):	5045 – Isopropyl Alcohol
	LD ₅₀ (Oral-Rat)(mg/Kg):	5628 – Methyl Alcohol
Carcinogenicity:	NTP:	No
	IARC:	One or more components are classified in Group 3
	Z List:	No
	OSHA Reg:	No
Effects of Overexposure:		Irritation, itching, coughing, dermatitis, dizziness, drowsiness, headache, hallucinations, ataxia, coma, gastrointestinal upset, blindness, convulsions, death
Target Organs:		Respiratory system, central nervous system, eyes, skin, liver, pancreas
Medical Conditions Aggravated By Exposure:		Pre-existing eye and skin problems
Routes of Entry:		Ingestion, inhalation, skin and eye contact

The toxicological properties of this product have not been thoroughly investigated

6. EMERGENCY AND FIRST AID

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Get medical attention.
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Get medical attention if irritation persists.

7. FIRE HAZARDS & FIRE FIGHTING MEASURES

Flash Point (Closed Cup):	12.5 C
Flammable Limits:	Upper – 19 % Lower – 3.3 %
Fire Extinguishing Media:	Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.
Special Fire-Fighting Procedures:	In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.
Unusual Fire & Explosion Hazards:	May emit toxic fumes under fire conditions.
Toxic Gases Produced:	Carbon monoxide, carbon dioxide

8. REACTIVITY & CONDITIONS TO AVOID

Stability:	Stable under normal conditions of use
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Ignition sources, high heat, incompatibles
Incompatibles:	Strong oxidizing agents, platinum, sodium, potassium dioxide, bromine pentafluoride, acetyl bromide, acetyl chloride, concentrated nitric acid, sulfuric acid
Hazardous Decomposition Products:	Carbon dioxide, carbon monoxide

9. SPECIAL PRECAUTIONS/PROTECTIVE EQUIPMENT

Ventilation:	Ventilation hood required
Respiratory Protection:	A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited.
Eye/Skin Protection:	Have eye-washing facilities readily available where eye contact can occur. Wear chemical safety goggles. Use appropriate chemical protective gloves when handling. Showering and changing into street clothes after work is recommended.

10. SPILLS & LEAKS

Spill or Discharge:	Wear suitable protective clothing and a self-contained breathing apparatus if available. Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water.
Disposal Procedure:	Dispose in accordance with all applicable federal, state, and local environmental regulations.
EPA Hazardous Waste Number:	N/A

11. TRANSPORTATION DATA

Domestic (D.O.T.):	Proper Shipping Name:	Ethanol Solutions
	Hazard Class:	3
	UN/NA:	UN1170
	Labels:	Flammable
International (I.M.O.):	Proper Shipping Name:	Ethanol Solutions
	Hazard Class:	3
	UN/NA:	UN1170
	Labels:	Flammable

12. REGULATORY INFORMATION

U.S. Federal Regulatory Information

TSCA:	All components are listed
SARA TITLE III:	
Section 302 (EHS) Ingredients:	No
Section 313 Ingredients:	No
Section 304 (EHS/CERCLA) Ingredients:	Methyl Alcohol

SARA TITLE III NOTIFICATION INFORMATION

Acute Health Hazard: No
Chronic Health Hazard: No
Fire Hazard: No
Sudden Release of Pressure Hazard: No

International Regulatory Information

Risk Phrases: 12 – Extremely flammable
25 – Toxic if swallowed
36/37/38 – Irritating to eyes, respiratory system, and skin
40 – Possible risk of irreversible effects
66 – Repeated exposure may cause skin dryness or cracking
67 – Vapors may cause drowsiness and dizziness

Safety Phrases: 16 – Keep away from sources of ignition-No smoking
23 – Do not breathe vapor
24/25 – Avoid contact with skin and eyes
36/37/39 – Wear suitable protective clothing, gloves, and eye/face protection

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