

# Safety Data Sheet (SDS)

## Section 1: Chemical Product and Company Identification

**Cat# :** 3916, 3916EA

**Part Name:** Ethanol for Molecular Biology ( 200 Proof ethanol)

**Supplier: Decon Laboratories Inc.**  
460 Glennie Circle King of Prussia, Pa 19406  
SDS Telephone # (610) 755-0800

### Emergency Telephone Numbers

US Chemtrec: (800) 424-9300

Canada: (703) 527-3887

**Identified uses:** Laboratory use

Email Contact: [cveloski@deconlabs.com](mailto:cveloski@deconlabs.com)

## Section 2: Hazards Identification:

### Hazard Overview

Flammable Liquid and vapor. Harmful or fatal if swallowed. Vapor is harmful.  
May cause central nervous system depression. May be irritating to eyes and skin.

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### GHS Classification

Flammable Liquids, Category 2  
Eye Irritation, Category 2B  
Skin Irritation, Category 2  
Specific Target Organ Toxicity – single exposure, Category 3

**Signal Word: DANGER**



### Hazard and Precautionary Statements

H225	Highly Flammable liquid and vapor.
H315	Causes skin irritation.
H320	Causes eye irritation
H335	May cause respiratory irritation.
P501	Dispose of contents to an approved waste disposal plant.
P240	Ground/bond container and receiving equipment.
P501	Dispose of contents to an approved waste disposal plant.
P333 + 313	If eye irritation persists get medical attention.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

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P303/361/353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water.  
P370 + 378 In case of fire: Use appropriate extinguishing media (See Section 5).  
P210 Keep away from heat, sparks, open flames and hot surfaces - no smoking.  
P233 Keep container tightly closed.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P243 Take precautionary measures against static discharge.  
P241 Use explosion-proof electrical/ventilating/lighting equipment.  
P242 Use only non-sparking tools.  
P264 Wash thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

## NFPA Rating

Hazard Ratings:

These ratings are Decon Laboratories Inc.'s own assessments of the properties of the material using the ANSI/NFPA 704 Standard. Additional information can be found by consulting in the NFPA published ratings lists (List 325 and list 49).

If no data is listed the information is not available

Health 1            Flammability 3            Reactivity 0

## Section 3: Composition/ Information on ingredients

Note: Items listed with a CASRN number have no CAS# available

Item#	Name	EINECS	CAS #	% in Product
1	Ethanol		64-17-5	100

## Section 4: First Aid Measures

**EYES:** Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention, if irritation occurs or persists.

**SKIN:** Wash with soap and water for at least 15 minutes. Get medical attention, if irritation develops or persists.

**INGESTION:** DO NOT INDUCE VOMITING. Do not attempt to give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Seek immediate medical attention.

## SIGNS AND SYMPTOMS OF OVEREXPOSURE

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**ACUTE TOXICITY:** Shortness of breathing, confused behavior, redness of skin, swelling of tissues, watery eyes, and nausea.

## Section 5: Fire-Fighting Measures

**EXTINGUISHING MEDIA:** Use "alcohol resistant" foam, dry chemical, or CO<sub>2</sub>. Water may be ineffective, but water applied as a spray can absorb some of the fire's heat and should be used to keep fire-exposed containers cool.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

**EXPLOSION HAZARDS:** When heated above the flash point, this material emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

**FIRE FIGHTING PROCEDURES:** WARNING! Flammable Liquid. Clear fire area of unprotected personnel. Do not enter confined fire space without full bunker gear, including a positive pressure NIOSH approved SCBA. Cool fire exposed containers with water.

## Section 6: Accidental Release measures

Any information listed below is to be considered in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition sources from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel.

**GENERAL PROCEDURES:** WARNING. Flammable. Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency.

## Section 7: Handling and Storage

**GENERAL PROCEDURES:** Keep away from heat, sparks, and flame. Surfaces that are hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone.

Handling: Do not get on skin. Do not get in eyes. Do not inhale vapor or mist. Metal containers involved in the transfer of this material should be grounded and bonded.

Storage: Keep container tightly closed. Keep in cool, dry and well ventilated location. Be sure to check with local fire codes for additional information on storage.

**COMMENTS:** KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition; they may explode and cause injury or death.

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## Section 8: Exposure Controls / Personal Protection

### OSHA (ACGIH) Exposure Limits

	TWA		STEL		CEILING	
	ppm	mg/ m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
CAS # 64-17-5						
OSHA	1000	1900	-	-	-	-
ACGIH	1000	1884	-	-	-	-
Supplier OEL	400	980	400	1,225	-	-

The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves.

**ENGINEERING CONTROLS:** Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Use chemical safety goggles and/or full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

**SKIN:** Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

**RESPIRATORY:** If exposure may or does exceed occupational exposure limits (Sec. 8) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

**PROTECTIVE CLOTHING:** Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required.

**WORK HYGIENIC PRACTICES:** Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

**OTHER USE PRECAUTIONS:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

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**COMMENTS:** May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventilation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

Chemical-resistant gloves should be worn whenever this material is handled. The glove material has to be impermeable and resistant to the product. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water. All glove recommendations presume that the risk of exposure is through splash and not intentional immersion of the hands into the product. Since glove permeation data does not exist for this material, no recommendation for the glove material can be given for the product. Permeation data must be obtained from the glove manufacturer to determine if the glove is suitable for the task.

## Section 9: Physical and Chemical Properties

Formula:	C <sub>2</sub> H <sub>6</sub> O	Vapor Pressure:	44.6
Flash Point:	55°F (TAG CC)	Vapor Density:	Heavier than air
Boiling Point:	173°F	Specific Gravity:	0.78 – 0.80 g/mL
Melting Point:	-173°F	pH:	N/A
Flammable Limits	0.033 – 0.19 (100% ethanol)	Percent Volatile:	100
Auto ignition Temp:	685°F (100% ethanol)	Appearance:	Clear, colorless liquid
Solubility:	Soluble in water	Odor:	Alcohol odor
Evaporation Rate:	No data – expected to be rapid	Density:	6.62 lbs/gal

## Section 10: Stability and Reactivity:

Chemical Stability:	Stable
Conditions to Avoid:	Heat, spark, flame and contact with strong oxidizing agents. Do not store in aluminum equipment at temperatures above 120°F
Incompatibility with other materials:	Incompatible with strong acids or bases, oxidizers, alkali metals and halogens
Hazardous Decomposition Products:	Carbon monoxide and unidentified organic compounds may be formed during combustion. There should be no decomposition if stored and applied as directed
Hazardous Polymerization:	Will not occur

## Section 11: Toxicological Information

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Target Organs: This product contains ethanol. Alcoholic beverage consumption has been associated with brain damage, heart damage, and pancreatitis in humans. The relevance of these findings to ethanol exposure in industrial environments is uncertain.

## Section 12: Ecological Information

Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

## Section 13: Disposal Considerations

**DISPOSAL METHOD:** The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

**EMPTY CONTAINER:** KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

**RCRA/EPA WASTE INFORMATION:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

## Section 14: Transportation Information

Proper Shipping Name:	Ethanol
Chemical Name:	Ethanol
UN #	1170
Class	3
Packing Group:	II
NAERG:	127

Note:  
*Exemptions apply for small pack sizes.*

## Section 15: Regulatory Information

All components of this product are on the TSCA public inventory.

### UNITED STATES

### DOT LABEL SYMBOL AND HAZARD CLASSIFICATION

Flammable Liquid

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S23: Do not breathe gas/fumes/vapour/spray.

## **SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

**311/312 HAZARD CATEGORIES:** This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

**FIRE:** Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

**313 REPORTABLE INGREDIENTS:** To the best of our knowledge, this product is not listed as a toxic chemical under Section 313 of SARA Title III.

## **302/304 EMERGENCY PLANNING**

**EMERGENCY PLAN:** To the best of our knowledge, this product is not listed as an extremely hazardous substance.

## **TSCA (TOXIC SUBSTANCE CONTROL ACT)**

**TSCA STATUS:** Listed.

## **CANADA**

## **WHMIS HAZARD SYMBOL AND CLASSIFICATION**

Flammable Liquid

S23: Do not breathe gas/fumes/vapour/spray.

S15: Keep away from heat.

**GENERAL COMMENTS:** The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

<b>Section 16: Other Information</b>
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**End of Safety Data Sheet**