

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name : Ethyl Alcohol 190 Proof  
CAS number : 64-17-5  
Synonyms : Ethyl Alcohol 92-98%

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : General purpose solvent, laboratory chemicals, reagent for analysis

#### 1.3 Details of the supplier of the safety data sheet

Company : Lab Alley, LLC  
22111 Highway 71 West, Suite 601  
Spicewood, Texas 78669  
U.S.A.

Telephone : 512-668-9918  
Fax : 512-886-4008

#### 1.4 Emergency telephone

Emergency Phone # : US & Canada: 1-800-535-5053      INFOTRAC  
International 1-352-323-3500      INFOTRAC

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225: Flammable liquids (Category 2)  
H319: Eye irritation (Category 2A)  
H371: Specific target organ toxicity - single exposure (Category 2), Eyes,  
Central nervous system

For the full text of the H-Statements mentioned in this Section, see Section 16

## 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

:

**Danger**

Hazard statement(s)

:

H225 Highly flammable liquid and vapor.  
H319 Causes serious eye irritation.  
H371 May cause damage to organs (Eyes, Central nervous system).

Precautionary statement(s)

:

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe mist or vapors.

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

### SECTION 3: Composition/information on ingredients

#### 3.1 Components

Chemical name	CAS number	Concentration
Ethyl alcohol	64-17-5	92-98%
Water	7732-18-5	2-8%

### SECTION 4: First aid measures

#### 4.1 Description of first-aid measures

**General advice**

: Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. Show this safety data sheet to the doctor in attendance.

**If inhaled**

: Move to fresh air. Call a physician if symptoms develop or persist.

- In case of skin contact** : Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.
- In case of eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
- If swallowed** : Rinse mouth. Get medical attention if symptoms occur.

#### 4.2 Most important symptoms and effects, both acute and delayed

Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media** : Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** : Do not use water jet as an extinguisher, as this will spread the fire.

#### 5.2 Specific hazards arising from the substance or mixture

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed. Combustion products may include: carbon oxides..

#### 5.3 Special protective equipment and precautions for firefighters

In the event of fire, wear self-contained breathing apparatus.

#### 5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system. Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. Show this safety data sheet to the doctor in attendance.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

#### 6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb® ). Dispose of properly. Clean up affected area.

#### 6.4 Reference to other sections

For disposal see section 13.

## SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

## Hygiene measures

Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

## Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials.

## 8. Exposure controls/personal protection

## 8.1 Occupational exposure limits

### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
0c@ A& @ ÄÖÜÂ É Ë Đ	ÚŒŠ	FJĚČ ħ * Þ ĤZĖĆĲ{

## US. ACGIH Threshold Limit Values

Component	Type	Value
0c@ A8 @  A0CÀÀ  E E Á	STEL	1000 ppm

## US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
CO, NO <sub>2</sub> , SO <sub>2</sub> , PM <sub>10</sub> , PM <sub>2.5</sub> , O <sub>3</sub>	TWA	1900 mg/m <sup>3</sup> , 1000 ppm

## Biological occupational exposure limits

Component	Type	Value
NA	NA	NA

## 8.2 Exposure controls

### Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

### Personal protective equipment

#### Eye/face protection

Chemical goggles are recommended.

#### Skin protection

Wear appropriate chemical resistant gloves. Nitrile, butyl rubber or neoprene gloves are recommended. Other suitable gloves can be recommended by the glove supplier. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

#### Body Protection

Wear appropriate chemical resistant clothing.

#### Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

#### Control of environmental exposure

Do not let product enter drains. Risk of explosion.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear liquid; invisible vapor
Odor	Sweet. Alcohol-like
Odor Thresh	Not available
pH	Not available
Melting Point/Range	173 °F (78.33 °C)
Boiling Point/Range	172.4-176°F (78-80 °C)
Evaporation Rate	No data available
Flammability (solid)	Not applicable
Flammability or explosive limit	
	Upper : 19%
	Lower : 3.30%
Vapor Pressure	59.5 hPa (68 °F (20 °C))
Vapor Density	1.6
Density	0.796-0.825 g/ml (77 °F (25 °C))
Solubility	Soluble

Partition coefficient; n-octanol/water	Not available
Autoignition Temp	685.4 °F (363 °C)
Decomposition Temp	Not available
Viscosity	Not available
Molecular Formula	C2-H6-O (Ethanol) H2O (Water)
Molecular Weight	46.07 g/mol (Ethanol) 18.02 g/mol (Water)
VOC Content(%)	Not oxidizing.
Oxidizing properties	Not oxidizing.

## 9.2 Other safety information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Vapors may form explosive mixture with air.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

### 10.3 Possibility of hazardous reactions

Risk of explosion with Oxidizing agents.

### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

### 10.5 Incompatible materials

Strong oxidizing agents. Magnesium, rubber, oils, zinc alloys.

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

##### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethyl alcohol	LD50 = 10470 mg/kg OCED 401 (Rat) 3450 mg/kg ( Mouse )	Not listed	LC50 = 117-125 mg/l (4h) OECD 403 (rat) 20000 ppm/10H (rat)

##### Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

##### Serious eye damage/eye irritation

Causes serious eye irritation.

##### Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.

##### Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

##### Carcinogenicity

Not classifiable as to carcinogenicity to humans.

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is in OSHA's list of regulated carcinogens.

##### Reproductive toxicity

No data available

##### Specific target organ toxicity - single exposure

Mixture may cause damage to organs - Eyes, Central Nervous System

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Chronic effects**

Prolonged inhalation may be harmful.

**11.2 Additional Information**

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

**12. Ecological information****12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bio accumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6 Endocrine disrupting properties**

No data available



## 12.7 Other adverse effects

Product		Species	Test Results
Ethyl Alcohol (CAS 64-17-5)	EC10	Algae, Freshwater algae	11.5 mg/l, 72 hours
	EC50	Freshwater algae	275 mg/l, 72 hours
	LC50	Fish, Freshwater fish	11200 mg/l, 24 hours
	NOEC	Freshwater fish	250 mg/l
	EC50	Invertebrate, Freshwater invertebrate	5012 mg/l, 48 hour
		Marine water invertebrate	857 mg/l, 48 hours
	NOEC	Freshwater invertebrate	9.6 mg/l, 10 days
		Marine water invertebrate	79 mg/l, 96 hours

### Persistence and Degradability

No data is available on the degradability of this substance.

### Bioaccumulation/ Accumulation

No data available.

### Mobility

No data available.

### Other adverse effects

## 13. Disposal considerations

### 13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

### DOT (US)

UN number:	UN1170
Proper shipping name:	Ethanol
Hazard Class:	3
Subsidiary risk:	
Packaging Group:	II
Environmental hazards:	

**IMDG**

UN number:	UN1170
Proper shipping name:	Ethanol
Hazard Class	3
Subsidiary risk	
Packaging Group	II
Environmental hazards	

**IATA**

UN number:	UN1170
Proper shipping name:	Ethanol
Hazard Class	3
Subsidiary risk	
Packaging Group	II
Environmental hazards	

**SECTION 15: Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**  
Not listed.

**SARA 304 Emergency release notification**  
Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**  
Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**  
**SARA 302 Extremely hazardous substance**  
Not listed.

**SARA 311/312 Hazardous** Yes  
Chemical

Classified hazard categories

Flammable (gases, aerosols, liquids, or solids) Serious eye damage or eye irritation

**SARA 313 (TRI reporting)**  
Not regulated.

## SECTION 15: Regulatory information, cont.

### Other federal regulations

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**  
Not regulated

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**  
Not regulated.

**Safe Drinking Water Act**  
Not regulated

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**  
Ethyl Alcohol (CAS 64-17-5)                      Low priority

**Food and Drug Administration (FDA)**  
Total food additive  
Direct food additive  
GRAS food additive

### US state regulations

**US. Massachusetts RTK - Substance List**  
Ethyl Alcohol (CAS 64-17-5)

**US. New Jersey Worker and Community Right-to-Know Act**  
Ethyl Alcohol (CAS 64-17-5)

**US. Pennsylvania Worker and Community Right-to-Know Law**  
Ethyl Alcohol (CAS 64-17-5)

**US. Rhode Island RTK**  
Ethyl Alcohol (CAS 64-17-5)

### California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## SECTION 16: Other information

Issue Date                      08/21/2018  
Revision Date                 05/23/2023

### Disclaimer:

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.