# SAFETY DATA SHEET

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

### 1.1 Product identifiers

| | |
|---|---|
| Product name | Ethanol 190 Proof |
| CAS number | 64-17-5 |
| Synonyms | Ethyl alcohol; EtOH |

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

| | |
|---|---|
| Identified uses | Laboratory chemicals. |

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

| | |
|---|---|
| Company | Lab Alley, LLC<br>12501 Pauls Valley Road<br>Austin, Texas 78737<br>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)**

| | |
|---|---|
| Flammable Liquids | Category 2 |
| Eye Irritation | Category 2A |

### 2.2 GHS Label elements, including precautionary statements

| | |
|---|---|
| Pictogram |  |
| Signal Word | Danger |
| Hazard statements | Highly flammable liquid and vapor.<br>Causes serious eye irritation. |
| Precautionary statements | Prevention: Keep away from heat, open flames, sparks. No smoking. Keep container tightly closed. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use explosion-proof electrical, lighting, ventilating equipment. Use only non-sparking tools. Wash hands, forearms, and exposed areas thoroughly after handling. Wear eye protection, protective gloves, protective clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Keep cool.<br><br>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.<br><br>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.<br><br>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.<br><br>Fire: In case of fire, use CO2, dry chemical, or foam for extinction.<br><br>Storage:Store locked up. Store in a well-ventilated place. Keep container tightly closed.<br><br>Disposal: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations. |

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

| Chemical name | Common name and synonyms | CAS number | Concentration |
|---|---|---|---|
| Ethanol | Ethyl alcohol; EtOH | 64-17-5 | 94.5-96.0% |
| Water | Aqua; H2O | 7732-18-5 | 4.0-5.5% |

## SECTION 4: First aid measures

## 4.1 Description of first-aid measures

**General advice**

**If inhaled** If symptoms are experienced, remove source of contamination or move to fresh air. If breathing is difficult, get medical attention.

**In case of skin contact** Take off immediately all contaminated clothing. Rinse skin with water/shower. If irritation is experienced, flush with water. Get medical attention if irritation develops and persists.

**In case of eye contact** Immediately flush eyes with water for at least 15 minutes while holding. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms persist.

**If swallowed** Rinse mouth. Do NOT induce vomiting. If the material is swallowed, get medical attention or advice.

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

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea, and vomiting.

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

No information available.

# SECTION 5: Firefighting measures

## 5.1 Extinguishing media

**Suitable extinguishing media** Water spray, alcohol-resistant foam, BC-powder, Carbon dioxide (CO2).

**Unsuitable extinguishing media** Water jet.

## 5.2 Specific hazards arising from the substance or mixture

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.
Hazardous Combustion Products: Carbon monoxide (CO), Carbon dioxide (CO2).

## 5.3 Special protective equipment and precautions for firefighters

In case of fire and/or explosion, do not breathe fumes. Wear self-contained breathing apparatus. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

### 5.4 Further information

**Flash Point** 13 - 17 °C / 55.4 - 62.6 °F

**Autoignition Temperature** 363 °C / 685.4 °F

**Explosion limits**

**Upper** 19 vol %

**Lower** 3.3 vol %

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

**NFPA**

| Health | Flammability | Instability | Physical hazards |
|---|---|---|---|
| 2 | 3 | 0 | N/A |

## SECTION 6: Accidental release measures

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

Use personal protective equipment as required. 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.

### 6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

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

In case of a spill, cover drains. Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder. Use of absorbent materials. Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements. For disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Precautions on 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. Keep in an area equipped with sprinklers. Store away from incompatible materials.

### Incompatibilities

Strong oxidizing agents.

# SECTION 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 |
|---|---|---|
| Ethanol | PEL-TWA | 1000 ppm 1900 mg/m3 |

**US. ACGIH Threshold Limit Values**

| Component | Type | Value |
|---|---|---|
| Ethanol | STEL | 1000 ppm |

**US. NIOSH: Pocket Guide to Chemical Hazards**

| Component | Type | Value |
|---|---|---|
| Ethanol | IDLH | 3300 ppm |
| | TWA | 1000 ppm 1900 mg/m3 |

### Biological occupational exposure limits

No information available.

## 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**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Body Protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**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 | Colorless |
| Odor | Sweet, Alcohol-like |
| Odor Threshold | No information available |
| pH | No information available |
| Melting Point/Range | -114°C (-173°F) |
| Boiling Point/Range | 172.4-176°F (78-80 °C) |
| Evaporation Rate | No information 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 | No information available |
| Density | 0.796-0.825 g/mL at 25 °C |
| Solubility | Soluble |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temp | 363 °C / 685.4 °F |
| Decomposition Temp | No information available |
| Viscosity | 0.544 – 0.59 mPa s at 25 °C |

| | |
|---|---|
| Molecular Formula | C2H6O |
| Molecular Weight | 46.069 g/mol |
| VOC Content(%) | Not oxidizing |
| Oxidizing properties | Not oxidizing |

### 9.2 Other safety information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Vapors may form explosive mixture with air.

### 10.2 Chemical stability

Stable under normal conditions.

### 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. Incompatible products.

### 10.5 Incompatible materials

Oxidizers. Magnesium, rubber, oils, zinc alloys.

### 10.6 Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO2).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Product Information, Component Information**

**Acute toxicity**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Ethanol | 10470 mg/kg (Rat) | - | 117-125 mg/L/4h (Rat) |

**Skin corrosion/irritation**

Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Respiratory or skin sensitization**

Not classified as a respiratory or skin sensitizer.

**Germ cell mutagenicity**

Not classified as a germ cell mutagenic.

**Carcinogenicity**

| Component | CAS | IARC | NTP | ACGIH | OSHA | Mexico |
|---|---|---|---|---|---|---|
| Ethanol | 64-17-5 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Specific target organ toxicity - single exposure**

None known.

**Specific target organ toxicity - repeated exposure**

None known.

**Reproductive toxicity**

No information available.

**Chronic effects**

Prolonged inhalation may be harmful.

### 11.2 Additional Information

No information available.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product | | Species | Test Results |
|---|---|---|---|
| Ethanol | EC10<br>EC50 | Freshwater Algae<br>Freshwater Algae | 11.5 mg/L, 72 hours<br>275 mg/L, 72 hours |
| | LC50<br>NOEC | Freshwater Fish<br>Freshwater Fish | 11200 mg/L, 24 hours<br>250 mg/L |
| | EC50 | Freshwater Invertebrate<br>Marine Invertebrate | 5012 mg/L, 48 hours<br>857 mg/L, 48 hours |
| | NOEC | Freshwater Invertebrate<br>Marine Invertebrate | 9.6 mg/L, 10 days<br>79 mg/L, 96 hours |

### 12.2 Persistence and degradability

No information available.

### 12.3 Bio accumulative potential

No information available.

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

No information available.

### 12.6 Endocrine disrupting properties

No information available.

### 12.7 Other adverse effects

No information available.

## SECTION 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-no | UN1170 |
| Proper Shipping Name | ETHANOL |
| Hazard Class | 3 |
| Packing Group | II |

**IMDG**

| | |
|---|---|
| UN-no | UN1170 |
| Proper Shipping Name | ETHANOL |
| Hazard Class | 3 |
| Packing Group | II |

**IATA**

| | |
|---|---|
| UN-no | UN1170 |
| Proper Shipping Name | ETHANOL |
| Hazard Class | 3 |
| Packing Group | II |

## 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 applicable.

**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**

See Section 2 for more information.

**SARA 313 (TRI reporting)**

Not regulated.

**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**

Listed, Ethanol (CAS #64-17-5).

**US state regulations**

**US. Massachusetts RTK - Substance List**

Listed, Ethanol (CAS #64-17-5).

**US. New Jersey Worker and Community Right-to-Know Act**

Listed, Ethanol (CAS #64-17-5).

**US. Pennsylvania Worker and Community Right-to-Know Law**

Listed, Ethanol (CAS #64-17-5).

**California Proposition 65**

Listed, Ethanol (CAS #64-17-5).

## SECTION 16: Other information

Issue date: 11/06/2026

## SECTION 17: 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.