



Product Information (541) 201-1050/ Emergency Assistance INFOTRAC 800-535-5053

Safety Data Sheet

Ethyl Alcohol 190 Proof

(This SDS is valid for all grades of Organic Alcohol)

Section I: Identification of Substance/ Product and of Company

Product Identifier: Ethanol

Synonyms: Ethyl Alcohol 95%; Ethanol

Other Identification: CAS No. 64-17-5
EINECS No. 200-578-6

Formula: C₂H₅OH

Manufacturer/ Distributor:

Alchemical Solutions, LLC
Ashland, Oregon USA
Phone(541)201-1050
Fax(541)482-6564

2305 Ashland Street
Suite C- PMB #442
Ashland, OR 97520

Recommended Use: General purpose organic solvent

Emergency Contact: InfoTrac 800-535-5053

Section II: Hazards Identification

Emergency Overview:

Hazardous. Flammable Liquid. Material can burn with no visible flame. May cause irritation to eyes, skin, respiratory and central nervous system.

OSHA Hazards: Flammable Liquid, Target Organ Effect, Irritant

Exposure/ Potential Health Effects:

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Skin: No harmful effects with normal skin. May cause dermatitis with repeated contact.
Inhalation: High vapor concentration may cause burning sensation in nose and throat and stinging of eyes. At high concentrations may cause irritation, dizziness, faintness, drowsiness, nausea and vomiting. Long term may cause coma or respiratory failure.
Eye: May cause irritation including stinging, tearing, and redness. May cause corneal damage and conjunctivitis.
Long Term Oral Exposure: gastrointestinal irritation with nausea, vomiting, and diarrhea. Long term oral exposure may result in liver injury with fibrosis.
Other Health Hazards: Repeated ingestion of ethanol by pregnant mothers has been shown to adversely affect the central nervous system of the fetus. Repeated exposure may aggravate liver injury produced from other causes.

NFPA



GHS label elements



Signal Word: Danger

Hazard Statements:

H225
H319

Highly flammable liquid and vapor.
Causes serious eye irritation.

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Precautionary Statements:

P501	Dispose of contents and container to an approved waste disposal plant.
P240	Ground/bond container and receiving equipment.
P337 + P313	If eye irritation persists: Get medical attention.
P305 + P351 + P338	If in eyes rinse with water for several minutes. Remove contact lenses. Seek medical attention.
P303 + P361 + P353	If on skin remove immediately any contacted clothing and rinse with water.
P370 + P378	In case of fire use dry sand, chemical, or alcohol-resistant foam.
P210	Keep away from sparks, heat, flame, and hot surfaces. No smoking
P233	Keep container tightly closed.
P403 + P235	Store in cool, well-ventilated place.
P243	Take measures of precaution against static discharge.
P241	Use only explosion-proof electrical, lighting and ventilating equipment.
P242	Use non-sparking tools.
P264	Wash hands after handling.
P280	Wear protection for eye, face and hands.

Section III: Composition/ Information on Ingredients

Chemical Identity:	Alcohol
Common name:	Ethyl Alcohol 95%, Ethanol
CAS #:	64-17-5
ICSC#:	0044
EINECS #:	200-578-6
RTECS #:	KQ6300000
UN #:	UN1170
EC #:	603-002-22-5

% Weight	Material	CAS	Exposure Limits
92.42 (95%v/v)	Ethyl Alcohol	64-17-5	1000ppm TWA
7.58%	Water	7732-18-5	None Established

Section IV: First Aid

General Advice: Take proper precautions for your own health and safety. Contact a physician for all cases of over-exposure.

Swallowing: If patient is fully conscious, give water. Do not induce vomiting. If vomiting does occur, have victim lean forward to prevent choking. Obtain medical attention.

Skin: Wash skin with soap and water for at least fifteen minutes. Contact physician if irritation persists.

Inhalation: Remove to fresh air. Give artificial respiration if not breathing. Get medical attention.

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Eyes: Flush eyes with water for at least fifteen minutes. Get medical attention.

Note to Physicians: Symptoms vary with alcohol levels of the blood. Mild alcohol intoxication occurs at blood levels between 0.5-.15%. Approximately 25% of individuals show signs of intoxication at these levels. Above .15% the person is definitely under the influence of ethanol; 50-95% of individuals are clinically intoxicated at these levels.

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Severe poisoning occurs when the blood is ethanol level is 0.3-0.5%. Above 0.5% the individual will be comatose and death can occur. The unabsorbed ethanol should be removed by gastric lavage after intubating the patient to prevent aspiration. Avoid the use of depressant drugs or the excessive administration of fluids.

Section V: Fire Fighting Measures

Fire/Explosive Properties:

Flash Point: 62F(17c) Tag Closed Cup

74F(23c) Tag Open Cup

Flammable Limits in Air: 3.3-19.0%(by volume)

Flammability Classification: 3(NFPA)

IB Flammable Liquid(OSHA, NFPA)

Suitable(and unsuitable) extinguishing media:

Small Fire: Use dry chemicals, CO₂, alcohol-resistant foam or water spray.

Large Fire: Use alcohol-resistant foam, water spray or fog. Flood affected containers with water to cool.

Specific Hazards from chemical: Carbon Monoxide is a primary combustion product.

Unusual Fire and Explosion Hazards:

Vapors may travel to source of ignition and flash back.

Vapors may settle in low places.

Re-ignition is possible.

Keep unopened containers cool by spraying with water.

Use self-contained breathing apparatus and protective clothing.

Static ignition hazard can result from handling and use.

Floating fire hazard may be produced.

Note:

Personnel may only be able to feel the heat as alcohol may burn with a pale blue flame that is extremely hard to see. Use extreme caution. Use maximum distance to fight fires

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or use unmanned hose holders. Cool containers with water flooding well after fire is out. Withdraw immediately if sound from venting safety devices or discoloration of tank occurs. Stay away from engulfed tanks.

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Section VI: Spill/Accidental Release Measures

Evacuate personnel to safe areas. Do not inhale vapors, mist or gas. Ensure adequate ventilation. Beware vapor accumulation.

Small spills can be flushed with large amounts of water.

Large spills: Eliminate all ignition sources. Extremely flammable liquid. Ground all equipment, do not walk through spill; stop spill if possible to prevent entry into sewers or drains. Use vapor suppressing foam to reduce vapors. Absorb spill with non-combustible matter and transfer to containers. Use non-sparking tools.

Section VII: Handling and Storage

Safe Handling:

Flammable Material.

Keep away from heat, sparks, flame and sudden releases of hot organic vapors or mists.

Keep away from processing equipment.

No smoking.

Take measures to ensure no electrostatic build-up.

Treat containers as hazardous.

Metal containers should be bonded and grounded.

Avoid contact with eyes.

Do not inhale.

Use adequate ventilation, vapors may settle into low areas.

Wash thoroughly after contact.

Open and handle with care.

Safe Storing:

Keep container closed.

Keep in cool, dry and ventilated area.

Carefully reseal and keep upright to prevent leakage.

Consult local fire codes for additional storage information.

Section VIII: Exposure Controls/ Personal Protection

Biological limit values:

Component	Source	Type	Value	Notes
Ethyl Alcohol	US(OSHA)	TWA	1000 ppm/1,900 mg/m ³	29 CFR 1910.1000 Table z-1 Limits for Air Contaminants
Ethyl Alcohol	US(OSHA)	IDHL	3300 ppm	None
Ethyl Alcohol	US(ACGIH)	STEL	1000 ppm	Upper respiratory tract irritation confirmed animal carcinogen with unknown relevance to humans

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Ventilation: Special, Local ventilation is needed where vapors escape to the workplace air.

Respiratory Protection: Use self-contained breathing apparatus in high vapor concentration. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Personal Protective Equipment: gloves, lab-coat or uniform, safety glasses or goggles, eye wash fountain and quick drench facilities.

Hygiene measures: Use good industrial hygiene and safety practices. Wash hands beginning, end of workday and at breaks.

Section IX: Physical and Chemical Properties

Appearance: clear, colorless liquid

Odor: characteristic

Vapor pressure: 59.5 hPa(44.6 mmHg)at 20C(68 F)(for 100% ethanol)

Vapor Density: 1.6(air=1)

Boiling point: 78.3 C(172.9 F)

Freezing point: -114C(-173F)

Solubility in Water: 100% @20C

Specific Gravity: .8107 @ 20/20C

Density @ 15.56C(60F) 6.67lbs./gal

Evaporation Rate: 3.0(butyl acetate=1)

Percent Volatiles: 100%

Formula(ethanol): C₂H₆O

Formula(water): H₂O

Molecular Weight(ethanol): 46.07 g/mol

Molecular Weight(water): 18.02 g/mol

Section X: Stability and Reactivity

Stability: Stable under correct storage conditions

Conditions to avoid: Heat, sparks, flame. Extreme Temperatures and direct sunlight.

Incompatibility/Materials to avoid: Strong oxidizing agents; strong inorganic acids.

Hazardous Combustion/Decomposition Products: Carbon Monoxide and/or Carbon Dioxide

Hazardous Polymerization: Will not occur.

Section XI: Toxicology Information

Ethyl Alcohol 64-17-5

Summary: Ethanol is not toxic by OSHA standards. Ingesting ethanol with sedatives or tranquilizers will increase change of toxicity.

Symptoms of Exposure: Central Nervous System depression, narcosis, damage to liver and heart. Chemical and physical toxicological properties have not been fully tested.

Carcinogenicity:

IARC, ACGIH, NTP, OSHA: Not classifiable as a human carcinogen

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Irritation:

Eyes- exposure to eyes may result in pain, stinging, irritation and reflex lid closure. Vapors may cause stinging but no apparent adverse effect. Impaired vision may occur.

Skin-Repeated exposure may cause skin to dry and crack.

Other:

Contact

Description

Contact	Description
Ingestion	May cause nausea, vomiting, diarrhea and gastrointestinal irritation. May cause central nervous system depression: excitement followed by headache, dizziness, drowsiness, and nausea. High concentration may result in collapse, unconsciousness and possible death due to respiratory failure.
Inhalation	High concentrations of Inhalation may cause nausea, headache, dizziness, suffocation and coma. May cause respiratory tract irritation.
Chronic	Can cause reproductive effects. Prolonged exposure may cause liver, kidney and heart damage. Long term exposure can cause loss of appetite, weight loss, nervousness, memory loss, mental retardation.

Water 7732-18-5

Summary: No toxicity effects of this product.

Carcinogenicity:

IARC, ACGIH, NTP, OSHA: No component of this product at levels greater than .1% is presented as a carcinogen or potential carcinogen.

Section XII: Ecological Information

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Ecotoxicity(aquatic and terrestrial): Acute fish toxicity

Toxicity to aquatic plants: Growth Inhibition

Toxicity to Microorganisms: Inhibits cells to multiply

Bioaccumulation is unlikely. Biodegradation is expected.

Water 7732-18-5

No data

Section XIII: Disposal

Disposal of product and contaminated packaging: Burn in chemical incinerator equipped with afterburner and scrubber.

Use care as product is highly ignitable.

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Contact a professional waste disposal service. Observe all federal, state, and local environmental regulations.
Handle with care.
Product highly flammable.

Section XIV: Transport Information

IMDG: UN-Number UN1170
Class 3
Packing Group II
EMS-No.: F-E, S-D
Proper shipping name: Ethanol Solutions
Not a Marine pollutant

IATA: UN1170 Class 3, Packing Group II
Proper shipping name Ethanol Solutions

UN Number	UN1170
UN Proper Shipping Name	Ethanol Solutions
Transport Hazard Class	3
Packing Group	II

Section XV: Regulatory Information

Federal EPA/OSHA:

CERCLA: No chemicals in this material with known CAS numbers are subject to the reporting requirements of CERCLA(act of 1980)

SARA (302, 304, 311,312): Title III requires emergency planning based on threshold planning quantities and release reporting based on reportable quantities in 40 CFR 355 (311/312 Acute Health Hazard, Chronic Health Hazard, Fire Hazard)

SARA(313): Title III requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372.
(This material does not contain any chemical components with known CAS numbers that exceed the reporting limits.)

Toxic Substances Control Act(TSCA) Status: All components of this product are listed or are exempt from listing on the TSCA inventory.

State Right to Know:

Massachusetts- Ethanol CAS-No. 64-17-5 Revision date 2007-03-01
Pennsylvania- Ethanol CAS-No. 64-17-5 Revision date 2007-03-01

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New Jersey- Ethanol CAS-No. 64-17-5 Revision date 2007-03-01

California- Warning. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Ethyl alcohol CAS 64-17-5 Revision Date: 2009-12-11

Section XVI: Other Information on Preparation and Revision of the SDS

The information contained herein is based on data considered to be accurate, However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. It is the user's obligation to determine the conditions of safe use of the product. Revised 1/26/16.

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