



Safety Data Sheet

Ethanol

Sidney Lee Welding Supply
2247 Highway US 19-41
Hampton, GA 30228
<http://www.sidneylee.com>

CHEMTREC - 24HR Emergency Contact
1-800-424-9300
ACCT: 20182

Section 1: Product and Company Identification

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Product Code: Ethanol

Section 2: Hazards Identification



Hazard Classification:
Flammable (Category 1)
Gases Under Pressure

Hazard Statements:
Contains gas under pressure; may explode if heated
Extremely flammable gas

Precautionary Statements

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response:

Eliminate all ignition sources if safe to do so.
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

Storage:

Protect from sunlight.
Store in well-ventilated place.

Section 3: Composition/Information on Ingredients

CAS #
64-17-5

Chemical Substance	Chemical Family	Trade Names
ETHYL ALCOHOL, 100%	Alcohols	ETHANOL; ETHYL ALCOHOL; /4; ALCOHOL; ALCOHOL ANHYDROUS; ALGRAIN; ANHYDROL; Absolute alcohol; Anhydrous ethanol; Ethanol denatured; Fermentation alcohol; Grain alcohol; 1-Hydroxyethane; Methyl carbinol; Ethyl alcohol anhydrous; Absolute ethanol; Denatured ethanol; ETHYL HYDRATE; ETHYL HYDROXIDE; JAYSOL; TECSOL; STCC 4909159; UN 1170; C2H6O

Section 4: First Aid Measures

Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.	Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.	Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.	For ingestion, consider gastric lavage.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Alcohol resistant foam, carbon dioxide, regular dry chemical, water, alcohol resistant foam Large fires: Use alcohol-resistant foam or flood with fine water spray.	Carbon monoxide, carbon dioxide, and toxic and irritating fumes	-Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. -Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Section 6: Accidental Release Measures

Personal Precautions	Environmental Precautions	Methods for Containment
Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	Avoid heat, flames, sparks and other sources of ignition.	Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition.

Methods for Cleanup	Other Information
Small spills: Absorb with sand or other noncombustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal.	Not available

Section 7: Handling and Storage

Handling	Storage
Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 125F (52C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.	Do not get liquid in eyes, on skin, or clothing. Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Open valve slowly. Close cylinder valve after each use; keep closed even when empty. If valve is hard to open, discontinue use and contact your supplier.

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines

ETHYL ALCOHOL, 100%: ETHYL ALCOHOL (ETHANOL): 1000 ppm (1900 mg/m³) OSHA TWA 1000 ppm ACGIH TWA 1000 ppm (1900 mg/m³) NIOSH recommended TWA 10 hour(s)

Engineering Controls

Handle only in fully enclosed systems.

Eye Protection	Skin Protection	Respiratory Protection
Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	Wear appropriate chemical resistant clothing.	Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

Section 9: Physical and Chemical Properties

Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor	Taste
Liquid	Clear	Colorless	N/A	Volatile liquid	Pleasant odor	Burning taste

Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
55 F (13 C) (CC)	IB	Not available	685 F (363 C)	0.19	0.033

Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity
172 F (78 C)	-179 F (-117 C)	40 mmHg @ 19 C	1.59 (Air=1)	0.7893	Soluble	Not available	5-10 ppm	1.4 (carbon tetrachloride =1)	1.17 mPa.s (1.17 centipoises) @ 20 C; 1.074 mPa.s (1.074 centipoises) @ 25 C

Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
46.07	C-H3-C-H2-O-H	Not available	Not available	Not available	1	Soluble: Benzene, ether, acetone, chloroform, methanol, organic solvents

Section 10: Stability and Reactivity

Stability	Conditions to Avoid	Incompatible Materials
Stable at normal temperatures	Stable at normal temperatures	Halo carbons, metals, metal salts, oxidizing materials, halogens, peroxides, acids, metal oxides, bases, combustible materials

Hazardous Decomposition Products	Possibility of Hazardous Reactions
Oxides of carbon	Will not polymerize.

Section 11: Toxicology Information

Acute Effects

Oral LD50	Dermal LD50	Inhalation
7 gm/kg oral-rat LD50	LD50 (dermal, rabbit): greater than 15800 mg/kg (cited as greater than 20 mL/kg); at 20 mL/kg, 1/4 rabbits died	Irritation, difficulty breathing, headache, drowsiness, symptoms of drunkenness

Eye Irritation	Skin Irritation	Sensitization
Irritation, tearing	Mild irritation, rash	Eye irritation, Category 2; H319: Causes serious eye irritation.

Chronic Effects

Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
NTP: Known Human Carcinogen (Alcoholic beverages); IARC: Human Sufficient Evidence, Group 1 (Alcoholic beverages), Animal Inadequate Evidence; ACGIH: A4 - Not Classifiable as a Human Carcinogen	Available.	Available.	No data

Section 12: Ecological Information

Fate and Transport

Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Fish toxicity: 93 ug/L 96 hour(s) LC50 (Mortality) Bluegill (<i>Lepomis macrochirus</i>) Invertebrate toxicity: 24 ug/L 48 hour(s) EC50 (Immobilization) Water flea (<i>Daphnia pulex</i>) Algal toxicity: 10000-25000 ug/L 1-2 hour(s) (Photosynthesis) Green algae (<i>Acrosiphonia sonderi</i>) Phyto toxicity: Not available Other toxicity: Not available	Highly toxic to aquatic life.	Not available	Not available

Section 13: Disposal Considerations

Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001. Dispose in accordance with all applicable regulations.

Section 14: Transportation Information

U.S. DOT 49 CFR 172.101

Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
ETHANOL or ETHYL ALCOHOL or ETHANOL SOLUTIONS or ETHYL ALCOHOL SOLUTIONS	UN1170	3	II, III	3	N/A	N/A	N/A

Canadian Transportation of Dangerous Goods

Shipping Name	UN Number	Class	Packing Group / Risk Group
Ethanol	UN1170	3	II

Section 15: Regulatory Information

U.S. Regulations

CERCLA Sections	SARA 355.30	SARA 355.40
Not regulated.	Not regulated.	Not regulated.

SARA 370.21

Acute	Chronic	Fire	Reactive	Sudden Release
Yes	Yes	Yes	No	No

SARA 372.65

Not regulated.

OSHA Process Safety

Not regulated.

State Regulations

CA Proposition 65
Not regulated.

Canadian Regulations

WHMIS Classification
B2, D2B

National Inventory Status

US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Listed on inventory.	Not listed.	Not determined.

Section 16: Other Information

NFPA Rating

HEALTH=2 FIRE=3 REACTIVITY=0

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard