

SECTION 1: Identification

1.1 Product Identifiers

1.1.1 Product Name: Ethyl Alcohol 95% (190 Proof)

1.1.2 Part Number: NS-190GG

1.1.3 CAS Number: 64-17-5

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

1.2.1 Identified Uses: Solvent

1.2.2 Restrictions: Uses other than the recommended use of the substance.

1.3 Details of the Supplier of the Safety Data Sheet

1.3.1 Company: Ultrapure Kentucky 6800 Enterprise Dr Louisville, KY 40214

1.3.2 Telephone: 502-654-8752

1.3.3 CHEMTREC (USA): 800-424-9300 (206300)

1.3.4 CHEMTREC (Outside of USA): 703-527-3887 CHEMTREC

24 Hours/day; 7 Days/week

SECTION 2: Hazards Identification

2.1 Classification of the Substance or Mixture

2.1.1 GHS Class: Flammable liquid (Category 2) (H225)

2.1.2 GHS Class: Serious eye damage/eye irritation (Category 2) (H319)

2.1.3 GHS Class:

2.2 GHS Label elements, including precautionary statements

2.2.1 Pictogram:



2.2.2 Signal Word: Danger

2.2.3 Hazard Statements

2.2.3.1 H225 - Highly flammable liquid and vapor.

2.2.3.2 H319 - Causes serious eye irritation.

2.2.3.3

2.2.4 Precautionary Statements

2.2.4.1 Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

2.2.4.2 Response: If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. 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. In case of fire: Use appropriate media to extinguish.

2.2.4.3 Storage: Store in a well-ventilated place. Keep cool.

2.2.4.4 Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Hazards not otherwise classified (HNOC): No additional hazards are known to be associated with the expected conditions of use at the time of publication.

SECTION 3: Composition/Information on Ingredients

3.1 Product Mixture

3.1.1 Synonyms: Ethyl Alcohol 92-98% ; Ethanol

3.1.2 Formula: Mixture

3.1.3 Molecular Weight: Mixture

3.1.4 CAS Number: Mixture

3.2 Mixtures

Chemical Name	CAS Number	Ingredient Percent by Weight
Ethanol	64-17-5	92 - 98
There are no additional hazardous ingredients greater than or equal to 1.0 weight percent concentration or carcinogenic ingredients greater than or equal to 0.1% weight percent concentration.		

SECTION 4: First Aid Measures

4.1 Description of First Aid Measures

- 4.1.1 General advice: Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved.
- 4.1.2 If inhaled: Move to fresh air. Call a physician if symptoms develop or persist.
- 4.1.3 In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.
- 4.1.4 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.
- 4.1.5 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: Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

5.1.1 Suitable Extinguishing Media

- 5.1.1.1 Water fog. Alcohol resistant foam.
- 5.1.1.2 Dry chemical powder.
- 5.1.1.3 Carbon dioxide (CO₂).

5.1.2 Unsuitable Extinguishing Media

- 5.1.2.1 Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special Hazards Arising from the Substance or Mixture

- 5.2.1 Vapors may form explosive mixtures with air.
- 5.2.2 Vapors may travel considerable distance to a source of ignition and flash back.
- 5.2.3 During fire, gases hazardous to health may be formed.
- 5.2.4 Highly flammable liquid and vapor.

5.3 Advice for Firefighters

- 5.3.1 Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

5.4 Further Information

- 5.4.1 In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

- 6.1.1 Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the SDS.

6.2 Environmental Precautions

- 6.2.1 Avoid discharge into drains, water courses or onto the ground.

6.3 Methods and Materials for Containment and Cleaning Up

- 6.3.1 Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material. Use a non-combustible material like vermiculite, sand or earth to soak up the product for later disposal. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Never return spills to original containers for re-use.

6.4 Reference to other Sections

- 6.4.1 For disposal see Section 13.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

7.1.1 Advice on Protection Against Fire and Explosion

- 7.1.1.1 Keep away from heat, sparks and open flame. Use non-sparking tools and explosion-proof equipment.
- 7.1.1.2 Take precautionary measures against static discharges. All equipment used when handling the product must be grounded.

7.1.2 Hygiene Measures

- 7.1.2.1 Observe good industrial hygiene practices.
- 7.1.2.2 Avoid contact with eyes. Avoid prolonged exposure.
- 7.1.2.3 Wear appropriate personal protective equipment.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

7.2.1 Storage Conditions

- 7.2.1.1 Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place.
- 7.2.1.2 Keep away from heat, sparks and open flame. Keep in an area equipped with sprinklers.
- 7.2.1.3 Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

8.1.1 Ingredients with Workplace Control Parameters

Chemical Name	CAS Number	Type	Value
Ethanol	64-17-5	PEL (OSHA)	1000 ppm (1900 mg/m ³)
Ethanol	64-17-5	STEL (ACGIH)	1000 ppm
Ethanol	64-17-5	TWA (NIOSH)	1000 ppm (1900 mg/m ³)
Ethanol	64-17-5	IDLH (NIOSH)	3300 ppm

8.2 Exposure Controls

8.2.1 Appropriate Engineering Controls

- 8.2.1.1 Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Provide eyewash station and safety shower.

8.2.2 Personal Protective Equipment

8.2.2.1 Eye/Face Protection Required

- 8.2.2.1.1 Chemical goggles are recommended.

8.2.2.2 Skin Protection Required

- 8.2.2.2.1 Wear appropriate chemical resistant gloves.

8.2.2.3 Body Protection

- 8.2.2.3.1 Wear suitable protective clothing.

8.2.2.4 Respiratory Protection

- 8.2.2.4.1 An approved respirator must be worn if engineering controls do not maintain airborne concentrations below recommended exposure limits.

8.2.2.5 Control of Environmental Exposure

- 8.2.2.5.1 Avoid discharge into drains, water courses or onto the ground.

SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

- 9.1.1 Physical State: Liquid.
- 9.1.2 Form: Liquid.
- 9.1.3 Color: Clear liquid; invisible vapor.
- 9.1.4 Odor: Sweet. Alcohol-like.
- 9.1.5 Odor Threshold: N/A
- 9.1.6 pH: Property has not been measured.
- 9.1.7 Melting Point/Freezing Point: $> -172.4 - < -124.6$ °F ($> -113.56 - < -87$ °C)
- 9.1.8 Boiling Point/Boiling Range: $> 172.4 - < 176$ °F ($> 78 - < 80$ °C)
- 9.1.9 Flash Point: $> 59 - < 68$ °F ($> 15 - < 20$ °C)
- 9.1.10 Evaporation Rate: Property has not been measured.
- 9.1.11 Flammability: Highly flammable liquid
- 9.1.12 Upper Explosion Limit (UEL): 19
- 9.1.13 Lower Explosion Limit (LEL): 3.3
- 9.1.14 Vapor Pressure: 5726 Pa
- 9.1.15 Vapor Pressure Temperature: 68 °F (20 °C)
- 9.1.16 Vapor Density: 1.6
- 9.1.17 Density: $> 0.796 - < 0.825$ g/cm³
- 9.1.18 Relative Density: $> 0.796 - < 0.825$
- 9.1.19 Relative Density Temperature: 77 °F (25 °C)
- 9.1.20 Water Solubility: Miscible.
- 9.1.21 Partition Coefficient (n-octanol/water): Not applicable, the product is a mixture.
- 9.1.22 Autoignition Temperature: 685.4 °F (363 °C)
- 9.1.23 Decomposition Temperature: Property has not been measured.
- 9.1.24 Viscosity: Property has not been measured.
- 9.1.25 Explosive Properties: Not explosive.
- 9.1.26 Oxidizing Properties: Not oxidizing.
- 9.2 Other safety information
 - 9.2.1 N/A

SECTION 10: Stability and Reactivity

10.1 Reactivity

- 10.1.1 The product is stable and non-reactive under normal conditions of use, storage and transport.
Vapors may form explosive mixture with air.

10.2 Chemical Stability

- 10.2.1 Material is stable under normal conditions.

10.3 Possibility of Hazardous Reactions

- 10.3.1 No dangerous reaction known under conditions of normal use.

10.4 Conditions to Avoid

- 10.4.1 Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

10.5 Incompatible Materials

- 10.5.1 Strong oxidizing agents.

10.6 Hazardous Decomposition Products

- 10.6.1 No hazardous decomposition products are known.
- 10.6.2 In the event of fire, see Section 5.

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

11.1.1 Mixture

- 11.1.1.1 Acute toxicity
 - 11.1.1.1.1 Oral: No data available

- 11.1.1.1.2 Symptoms: Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.
- 11.1.1.1.3 Dermal: No data available
- 11.1.1.2 Skin Corrosion/Irritation: Prolonged skin contact may cause temporary irritation.
- 11.1.1.3 Serious Eye Damage/Eye Irritation: Causes serious eye irritation.
- 11.1.1.4 Respiratory or Skin Sensitization: Not a respiratory sensitizer. This product is not expected to cause skin sensitization.
- 11.1.1.5 Germ Cell Mutagenicity: No data available to indicate product or components >0.1% are mutagenic or genotoxic.
- 11.1.1.6 Carcinogenicity
- 11.1.1.6.1 IARC: Not listed.
- 11.1.1.6.2 NTP: Not listed.
- 11.1.1.6.3 OSHA: Not listed.
- 11.1.1.7 Reproductive Toxicity: This product is not expected to cause reproductive or developmental effects.
- 11.1.1.8 Specific Target Organ Toxicity - Single Exposure: Not classified.
- 11.1.1.9 Specific Target Organ Toxicity - Repeated Exposure: Not classified.
- 11.1.1.10 Aspiration Hazard: Not an aspiration hazard.

11.2 Additional Information

11.2.1 N/A

11.2.2 Component Acute Toxicity

Component	Route	Species	Result
Ethanol	Oral	Rat	LD50 7000 - 11000 mg/kg
Ethanol	Dermal	Rat	LD50 > 2000 mg/kg
Ethanol	Inhalation (Vapor)	Mouse	LC50 39 g/m ³ , 4 Hours

SECTION 12: Ecological Information

12.1 Toxicity

12.1.1 Mixture: The product is not classified as environmentally hazardous.

12.2 Persistence and Degradability: No data is available on the degradability of this product.

12.3 Bioaccumulative Potential: log Kow (Ethanol): -0.31

12.4 Mobility in Soil: No data available.

12.5 Results of PBT and vPvB Assessment

12.5.1 PBT/vPvB assessment not available.

12.6 Endocrine Disrupting Properties: No data available.

12.7 Other Adverse Effects: No data available.

12.8 Component Ecotoxicity

Component	Species	Test Type	Result
Ethanol	Pimephales promelas (fathead minnow)	Acute LC50	13,480 mg/l, 96 hours
Ethanol	Daphnia magna	Acute LC50	454 mg/l, 11 days
Ethanol	Ceriodaphnia dubia	Chronic NOEC	9.6 mg/l, 10 days

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

13.1.1 Product

13.1.1.1 Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

13.1.1.2 Dispose in accordance with all applicable regulations.

- 13.1.1.3 Empty containers or liners may retain some product residues.
- 13.1.1.4 Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport Information

- 14.1 DOT (US)
 - 14.1.1 UN Number: UN1170
 - 14.1.2 Class: 3
 - 14.1.3 Packing Group: II
 - 14.1.4 Proper Shipping Name: Ethanol solutions
 - 14.1.5 Marine Pollutant: No
 - 14.1.6 Special Provisions: 24, IB2, T4, TP1
 - 14.1.7 Packaging – Exceptions: 4b, 150
 - 14.1.8 Packaging – Non-bulk: 202
 - 14.1.9 Packaging – Bulk: 242
 - 14.1.10 Reportable Quantity (RQ): N/A
 - 14.1.11 Poison Inhalation Hazard: No
- 14.2 IMDG
 - 14.2.1 UN Number: UN1170
 - 14.2.2 Class: 3
 - 14.2.3 Packing Group: II
 - 14.2.4 EMS-No: F-E, S-D
 - 14.2.5 Marine Pollutant: No
 - 14.2.6 Proper Shipping Name: ETHANOL SOLUTIONS
- 14.3 IATA
 - 14.3.1 UN Number: UN1170
 - 14.3.2 Class: 3
 - 14.3.3 Packing Group: II
 - 14.3.4 ERG Code: 3L
 - 14.3.5 Proper Shipping Name: Ethanol solutions

SECTION 15: Regulatory Information

- 15.1 CERCLA Reportable Quantity
 - 15.1.1 Not listed. This material does not contain any components with a CERCLA RQ.
- 15.2 SARA 304 Extremely Hazardous Substances Reportable Quantity
 - 15.2.1 Not regulated.
- 15.3 SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
 - 15.3.1 Not listed.
- 15.4 SARA 311/312 Hazards
 - 15.4.1 Fire Hazard: Yes (Flammable)
 - 15.4.2 Health Hazard: Yes (Serious eye damage or eye irritation)
 - 15.4.3 Chronic Health Hazard / SARA 313: Not regulated.
- 15.5 Clean Air Act
 - 15.5.1 Not regulated (CAA Section 112 HAPs).
 - 15.5.2 Not regulated (CAA Section 112(r)).
 - 15.5.3 Not regulated (Safe Drinking Water Act).
 - 15.5.4 SOCM I Intermediate or Final VOC (40 CFR 60.489)
- 15.6 Clean Water Act
 - 15.6.1 Not regulated (Clean Water Act).
- 15.7 State Regulations
 - 15.7.1 Massachusetts Right To Know
 - 15.7.1.1 Ethanol (CAS 64-17-5)
 - 15.7.2 New Jersey Right To Know
 - 15.7.2.1 Ethanol (CAS 64-17-5)

15.7.3 Pennsylvania Right To Know

15.7.3.1 Ethanol (CAS 64-17-5)

15.7.4 Rhode Island Right To Know

15.7.4.1 Ethanol (CAS 64-17-5)

15.8 California Proposition 65

15.8.1 This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins (Proposition 65).

15.9 Chemical Inventories

15.9.1 TSCA: All components of the mixture on the TSCA 8(b) inventory are designated "active".

15.9.2 International Inventories

Country/Region	Inventory	On Inventory (Yes/No)
United States & Puerto Rico	TSCA Inventory	Yes
Canada	DSL	Yes
Europe	EINECS	Yes
Australia	AICIS	Yes

SECTION 16: Other Information

16.1 HMIS Ratings

16.1.1 Health: 2

16.1.2 Flammability: 3

16.1.3 Physical Hazard: 0

16.2 Disclaimer

16.2.1 The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Ultrapure LLC and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

16.3 Date of Preparation or Last Revision

16.3.1 Date of Last Revision: July 2026