

Ethanol Products

fuel and fuel components

Material Safety Data Sheet Denatured Ethanol (Anhydrous)

SECTION I – Product and Company Information

Product Name: Denatured Ethanol (Anhydrous)
Chemical Name: CDA20-200 proof

Responsible Party: Ethanol Products, LLC
Address: 9530 E. 37th St. N., Wichita, KS 67226

24-Hour Emergency Assistance and Other Information call: 1-800-633-8253 (PERS)

SECTION II – Hazardous Ingredients of Mixture

| Principal Hazardous Component(s) | CAS# | Vol % | Exposure Limits |
|-----------------------------------|------------|--------|--|
| Ethyl Alcohol | 64-17-5 | 95.0 | OSHA PEL/TWA 1000 ppm |
| Natural Gasoline | 68425-31-0 | 5.0 | ACGIH TLV/TWA 300 ppm ACGIH STEL 500 ppm |
| Benzene (constituent of gasoline) | 71-43-2 | <0.25% | OSHA PEL/TWA 1 ppm ACGIH TLV/TWA 10 ppm ACGIH STEL 5 ppm |

SECTION III – Physical Data

| | |
|---|--|
| Boiling Point (degrees C) (For ethyl alcohol): | 78.5 |
| Vapor Pressure (mm Hg) @ 20 degrees C: (For ethyl alcohol) | 43.9 |
| Vapor Density (air = 1): (For ethyl alcohol) | 1.59 |
| Solubility in Water: | Infinite |
| Appearance and Odor: | Colorless, water white liquid; mild fragrant odor. |
| Specific Gravity (water = 1): | 0.793 @ 60 degrees F |
| Percent Volatile by Volume (%): | 100 |
| Evaporation Rate: (n-butyl acetatexl): | 1.9 |

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SECTION IV – Fire and Explosion Hazard Data

Flash Point (Method Used): 49 degrees F
(Tag Open Cup ASTM D-1310)

Flammable Limits LEL UEL
(For Ethyl alcohol) 3.3% 19.0%

Extinguishing Media: Carbon Dioxide, alcohol resistant foam, or dry chemical

Special Fire Fighting Procedures: Approved respirators should be worn. Use water spray to cool equipment and to disperse vapors. Alcohol flames may be difficult to see because they are virtually colorless.

Unusual Fire and Explosion Hazards: Vapors form from this product and may travel or move by air currents to an ignition source and flash back. Flowing product may be ignited by self-generated static electricity.

SECTION V – Reactivity Data

Stability: Stable

Conditions to avoid: Heat, sparks, open flame

Incompatibility (Materials to avoid): Contact with oxidizing materials can cause vigorous reaction.

Hazardous Decomposition Products: None, however combustion will produce carbon dioxide and possibly carbon monoxide.

Hazardous Polymerization: Will not occur.

SECTION VI – Health Hazard Data

Route(s) of Entry: Inhalation – Yes.
Skin – Yes.
Ingestion – Yes.

| Carcinogenicity: | NTP | IARC | OSHA |
|-------------------------|------------|--------------------------|-------------|
| Ethyl alcohol | No | No | No |
| Natural Gasoline | No | Possible carcinogen (2B) | No |
| Benzene | No | Carcinogen (1) | Yes |

Signs/Symptoms of Overexposure: Breathing vapors may cause dizziness and drowsiness; loss of balance and coordination. Mucous membranes may become irritated.

Effects of Overexposure: Coughing, eye and nose irritation. May cause skin irritation. May cause gastrointestinal irritation and vomiting. CNS depression, unconsciousness; coma; respiratory failure and death

Medical conditions aggravated by exposure: Not determined

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Emergency and First Aid Procedures:

Eye Contact: Irrigate immediately with water and get medical attention.
Ingestion: Do not induce vomiting and get medical attention.
Inhalation: Remove from exposure and get medical attention.
Skin: Irrigate immediately with water.

SECTION VII – Spill or Leak Procedures

Eliminate all ignition sources. Wear appropriate personal protective equipment.

Small spills: Flush with large quantities of water.

Large spills: Contain and prevent entry of material into waterways. Collect for proper disposal in accordance with local, state and/or federal regulations.

SECTION VIII – Special Protection Information

Respiratory Protection: An appropriate NIOSH-approved respirator should be worn when TWA limits are exceeded.

Ventilation: Local exhaust as necessary to meet TWA limits.

Protective Gloves: Plastic or rubber.

Eye Protection: Safety glasses with splash guards or goggles.

Other Protective Equipment: Eye bath and safety shower should be available.

SECTION IX – Special Precautions

Precautions to be taken in handling and storing: Material is a flammable liquid. Keep liquid and its vapors away from heat, sparks and open flames. Keep containers closed. Use with adequate ventilation. Use explosion proof electrical equipment and non-sparking tools. Properly ground electrical equipment.

Other precautions: Avoid eye and skin contact. Avoid inhalation of vapors. The Bureau of Alcohol, Tobacco and Firearms (Dept. of the Treasury) regulates the production, procurement and use of ethyl alcohol products. All users must comply with these regulations. Not for human consumption.

SECTION X – Transportation

Department of Transportation – Classification: Alcohols N.O.S., 3, UN1987, PGII

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