

Health	2
Fire	3
Reactivity	0
Personal Protection	

# Material Safety Data Sheet

## Denatured Ethanol for Motor Fuel

### Section 1: Chemical Product and Company Identification

**Product Name:** Denatured Ethanol for Motor Fuel

**Contact Information:**

**Golden Grain Energy, LLC**  
 1822 43<sup>rd</sup> St Sw  
 Mason city, IA 50401

888-443-2676

**TSCA:** Yes

**CI#** Not available.

**Synonym:** Ethyl Alcohol Absolute  
 Dehydrated Ethanol, Anhydrous Ethanol

**Chemical Name:** Denatured Ethanol

**For non-emergency assistance, call 888-443-2676**

### Section 2: Composition and Information on Ingredients

Name	CAS #	% by Weight
200 Proof Ethanol	64-17-5	93-98%
Natural Gasoline	68425-31-0	5-8%
Benzene	71-43-2	<5
n-Hexane	110-54-3	<10
Toluene	108-88-3	<3
Methyl Alcohol	67-56-1	<10
Xylene	1330-20-7	<10
Ethylbenzene	100-41-4	<1

OSHA Hazardous Components (29CFR 1910.1200)  
 Toxicological Data on Ingredients: TWA 1000ppm

### Section 3: Hazards Identification

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not classified as a human carcinogen.

**Effects of Repeated Exposure:** Long term repeated oral exposure to ethanol may result in development of progressive 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, producing a collection of effects which together constitute fetal alcohol syndrome. These include mental and physical retardation, disturbances of learning and motor and language deficiencies, behavioral disorders and small head size.

#### Section 4: First Aid Measures

**Inhalation:** Remove to fresh air. Give artificial respiration if not breathing. If breathing is difficult oxygen may be given by qualified personnel.

**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention at once..

**Skin Contact:** Wash skin thoroughly with soap or mild detergent. Apply a skin cream with lanolin. If irritation occurs seek medical attention.

**Ingestion:** If swallowed do not induce vomiting. If vomiting occurs, keep head below waist level. Obtain medical attention.

#### Section 5: Fire and Explosion Data

**Flammability Classification:** 3 (NFPA)

**Flash Points:** -5 F – Closed Cup

**Flammable Limits:** In Air – 3.3 – 19% by volume

**Auto Ignition Temp:** 793 F

**Products of Composition:** Carbon oxides including carbon monoxide and carbon dioxide.

**Fire Fighting Instructions:** Apply alcohol type or all purpose foam by manufacturers recommendations for large fires. Use of carbon dioxide or dry powder for small fires.

**Fire Fighting Equipment:** Use water spray to cool fire exposed containers and structures. Use water spray to disperse vapors, re-ignition is possible. Use SCBA and protective clothing

Vapors may travel to source of ignition and flash back, vapors may settle in low areas, may produce a floating fire hazard, static ignition hazard can result from handling and use.

#### Section 6: Accidental Release Measures

**Small Spill:** Can be flushed with large amounts of water. Prevent spilled materials from sewers, storm drains.

**Large Spill:** Eliminate all ignition sources: ground all equipment; do not walk through spill; stop the spill if possible; prevent entry into sewers, confined spaces, etc: use a vapor suppressing foam to reduce vapors; absorb with non-combustible matter and transfer to containers; use non-sparking tools to collect absorbed material.

#### Section 7: Handling and Storage

**Storage:** Storage Temperature – Ambient    Storage Pressure – Atmospheric

General: Keep container closed. Loosen closure cautiously before opening. Store in cool dry, well ventilated place away from incompatible materials such as oxidizing agents, acids or caustics.

Keep away from heat, flame or sparks

Protect material from direct sunlight and moisture intrusion.

### Section 8: Exposure Controls/Personal Protection

**Personal Protection:** Air Purifying Respirator with Organic Vapor Cartridges.  
Chemical Impervious Gloves.  
Approved eyewear and depending on the conditions a face shield may be necessary.  
Impervious clothing.

### Section 9: Physical and Chemical Properties

Physical State and Appearance: Liquid  
Vapor Pressure: 40@20 C  
Odor: Gasoline, Alcohol smell  
Appearance: Clear  
pH (1% soln/water): 7-9  
Boiling Point: 165 – 175 F  
Solubility: 10% by weight  
Vapor Density: >1  
Specific Gravity: .79

### Section 10: Stability and Reactivity

**General:** This product is stable and hazardous polymerization will not occur.  
**Incompatible Materials and Conditions to Avoid:** Incompatible materials such as oxidizing agents, acids or caustics.  
**Hazardous Decomposition:** Combustion can yield carbon, nitrogen and sulfur oxides.

### Section 11: Toxicological Information

**Toxicity to Animals:** NA  
**Chronic Effects on Humans:** Contact, especially if prolonged or repeated may cause redness, itching or blistering of the skin.

### Section 12: Ecological Information

**Ecotoxicity:** NA  
**BOD5 and COD:** NA  
**Products of Biodegradation:** NA

### Section 13: Disposal Considerations

**Waste Disposal:** This material is RCRA characteristic hazardous waste due to ignitability and the inclusion of benzene. If spilled and the release impacts soil or water or other media, testing of the contaminated material may be required prior to disposal.

### Section 14: Transport Information

**DOT Classification:** Alcohols, nos, PGII, UN1987  
**Identification:** NA  
**Special Provisions for Transport:** NA

### Section 15: Other Regulatory Information

**Federal and State Regulations:**

**TSCA 8(b) Inventory:** .

**SARA Title III: Acute Health – Yes, Chronic Health – Yes, Fire Hazard – Yes, Pressure Hazard – No, Reactive A=Hazard - No 313 and 40 CFR 372:** Benzene

**CERCLA:** Benzene

### Section 16: Other Information

**References:** Conoco Phillips

**Created:** 12/15/2004

**Last Updated:** 04/23/2009

**HMIS (U.S.A.):**

Health Hazard: 2

Fire Hazard: 3

Reactivity: 0

Personal Protection:

**National Fire Protection Association (U.S.A.)**

Health: 2

Flammability: 3

Reactivity: 0

Specific hazard: NA

OSHA Requirements in USA

Prepared by: Tom Denstedt, Larry Pascal

This information relates to this specific material. It may not be valid for this material if it is used in combination with any other materials or in any process. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information of this information for his own particular use. All materials may present unknown hazards and should be used with caution although certain hazards are described herein, we cannot guarantee these are the only hazards that exist.