



**CountryMark®**

## **E-85 Ethanol Fuel Blend**

### **Material Safety Data Sheet**

#### **SECTION I**

#### **PRODUCT IDENTIFICATION**

Manufacturer's Name: Countrymark Co-op, LLP  
Address: 1200 Refinery Road  
Mt. Vernon, Indiana 47620

Emergency Telephone Number: 812-838-8165 (Refinery Control Room)

Trade Names: E-85 Ethanol Fuel Blend

Chemical Names: (~ 85%) - Alcohol / Ethanol (Denatured)  
(~ 15%) – Gasoline or Light Petroleum Distillates

Chemical Families: Alcohols  
Hydrocarbons

Ethanol CAS Registry Number: 64-17-5  
Gasoline CAS Registry Number: 008006619

#### **SECTION II**

#### **HAZARDOUS INGREDIENTS**

E-85 Ethanol Fuel Blend is a mixture of ethyl alcohol (ethanol) and gasoline that is approved for use in specially designed alternate fueled motor vehicles.

Ethanol Blend 85% (Denatured with 5% gasoline)  
Gasoline 15%

SARA TITLE III SECTION 313  
HAZARD AND TOXIC MATERIALS NOTIFICATION  
(This is not a complete list of components.)

<u>Other Hazardous Components</u>	<u>CAS Number</u>	<u>E-85 Volume Range</u>
Benzene	71-43-2	< 1 %
Cyclohexane	10-82-7	< 1 %
Ethylbenzene	100-41-4	< 1 %
Toluene (Benzene, methyl)	108-88-3	< 5 %
Xylenes (Dimethyl Benzene)	1330-20-7	< 5 %

### CERCLA INFORMATION

Under EPA-CWA, this product is considered an oil under Section 311. Spills into or leading to surface waters that cause a sheen must be reported to the National Response Center, 800-424-8802.

### RCRA INFORMATION

Under EPA-RCRA (40 CFR 261.21), if this product becomes a waste material, it would be an Ignitable Hazardous Waste with Hazardous Waste Number D001. Refer to the latest EPA or State Regulations regarding proper disposal.

### SECTION III

### PHYSICAL DATA

Flash Point	< 0° F
Boiling Point (° F)	70 to 435
Specific Gravity (H <sub>2</sub> O = 1) at 60° F	0.70 to 0.78
Reid Vapor Pressure (at 100° F)	8 to 15
Percent Volatile by Volume (%)	100
Vapor Density (AIR = 1)	3 to 4
Evaporation Rate	Slower than Ether
Solubility in Water	Ethanol is soluble / Gasoline is insoluble
Appearance and Odor:	Clear mobile liquid with a characteristic odor recognizable at about 10 PPM in air. Gasoline is colored with dye for recognition of type.

### SECTION IV

### FIRE AND EXPLOSION HAZARD DATA

Flash Point (TCC)	-40° to -50° F	
Classification:	Flammable Liquid UN 1993	
Flammable Limits:	LEL <u>1.4</u> (Gasoline)	UEL 19.0 (Ethanol)
Explosive Limits:	Lower to 1.4 %	Auto ignition ~ 495° F
NFPA Hazard Rating: Health- 1	Flammability- 3	Reactivity-0
HMIS Hazard Rating: Health- 2	Fire – 4	Reactivity-0
Extinguishing Media:		
Small Fires:	Dry Chemical, Carbon Dioxide, Water Spray or Foam.	
Large Fires:	Water Spray, Fog, or Foam	

#### Hazardous Decomposition Products:

May form toxic materials of Carbon Dioxide and Carbon Monoxide, various hydrocarbons, etc. as combustion byproducts.

#### Special Fire Fighting Procedures:

Cool containers with water spray to prevent re-ignition. Containers may explode in heat of fire. Use unmanned hoses or monitor nozzles for large fires.

#### Unusual Fire and Explosion Hazards:

Can react violently with oxidizing agents such as Chlorine, Permanganates, and Dichromates, resulting in fire or explosion. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point.

## **SECTION V**

## **HEALTH HAZARD**

### Threshold Limit Value:

300 to 500 PPM if essentially Aliphatic Hydrocarbon composition. When Benzene and other Aromatics are present, then about 120 PPM TLV is applicable.

### Effects of Overexposure:

EYES - Can cause severe irritation, redness, tearing, blurred vision.

SKIN - Prolonged or repeated contact can cause moderate irritation, defatting, dermatitis.

BREATHING - Excessive inhalation of vapors can cause nasal irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation.

SWALLOWING - Can cause gastrointestinal irritation, nausea, vomiting, diarrhea. Aspiration of material into the lungs can cause chemical pneumonia.

### Emergency and First Aid Procedures:

IF IN EYES - Flush with large amounts of water, lifting upper and lower lids occasionally. Get medical attention.

IF ON SKIN - Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before wearing.

IF INHALED - Move individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet, and get medical attention.

IF SWALLOWED - Do not induce vomiting. Keep person warm, quiet and get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonia which can be fatal.

## **SECTION VI**

## **REACTIVITY DATA**

Stable  X  Unstable \_\_\_\_\_

Incompatibility (Materials to avoid): Avoid contact with strong oxidizing agents like Chlorine, Permanganates, and Dichromates as these may cause fire/explosion.

### Hazardous Decomposition Products:

May Form Toxic Materials of Carbon Dioxide and Carbon Monoxide, various hydrocarbons, etc. as combustion byproducts.

Hazardous Polymerization: May Occur \_\_\_\_\_ Will Not Occur  X

## **SECTION VII**

## **SPILL OR LEAK PROCEDURES**

### Steps to be taken in case material is released:

Small Spill: Eliminate all ignition sources (smoking, flares, flames, including pilot lights, electrical sparks, etc.). Absorb liquid and dispose of according to regulatory requirements.

Large Spill: Eliminate all ignition sources (smoking, flares, flames, including pilot lights, electrical sparks, etc.). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank or truck. Remaining liquid may be taken up on sand, clay, earth, floor absorbent or other absorbent material and shoveled into containers. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. *The ethanol portion of the blend is miscible with water.*

## **SECTION VIII**

## **SPECIAL PROTECTION INFORMATION**

### Respiratory Protection:

Normally not needed for normal exposure. A NIOSH/MSHA jointly approved air supplied respirator is advised in absence of proper environmental control. Firefighters require SCBA Positive Pressure Breathing Apparatus when involved in petroleum fires.

### Ventilation:

Explosion-proof motors and fans are required to provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(S). Mixture of vapors and air is highly explosive if ignited.

### Personal Protective Equipment and Apparel:

Gloves: Wear petroleum resistant gloves such as: Neoprene, Nitrile, etc. Rubber Gloves.

Eye Protection: Safety goggles or face shield for protection from splashing in eyes.

Other Protective Equipment: Wear impervious protective clothing and boots appropriate for work situations to prevent repeated or prolonged skin contact. Launder clothing when contaminated and before wearing.

## **SECTION IX**

## **SPECIAL PRECAUTIONS**

### Precautions to be taken when handling and storing:

Keep all containers in upright position with storage in cool, dry, well ventilated area away from heat, ignition, and strong oxidizers. Do not allow smoking in areas of use or dispensing. Motors, fans, switches, and etc. in area of use or dispensing should be explosion proof. Ground containers when filling. Prevent all static and electric sparks.

### Other Precautions:

Have written confined space and tank entry procedures. Never allow tank entry without checking OXYGEN AND VAPOR levels.

Use safety harness and safety line on person entering a tank. Stand-by person required with protective equipment available.

## **SECTION X**

## **TOXICOLOGICAL INFORMATION**

Ethanol is considered flammable, toxic and an irritant. Target organs for biological impact include the reproductive system, central nervous system and the skin.

Gasoline and its components are considered flammable, toxic and an irritant. Target organs for biological impact include the kidney, liver, blood and central nervous system. As an example, benzene a component of gasoline is a carcinogen.

**SECTION XI**

**DOT LABELING INFORMATION**

Per 49 CFR 172.101

Proper Shipping Name:	Alcohols, N.O.S. (Ethanol motor fuel blend)
Hazardous Classification:	Flammable Liquid, 3, UN 1987, PG II (DOT ERG No. 127)
Identification Number:	UN 1987
Label(s) Required:	Flammable Liquid
Reportable Quantity:	1000 lbs.

Note: Alcohols generally have a UN 1987 classification  
Gasolines generally have a UN 1203 classification

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