



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material name** Corn Oil  
**Version #** 03  
**Issue date** 12-01-2011  
**Revision date** 01-10-2013  
**Supersedes date** 12-18-2012  
**CAS #** 8001-30-7  
**Manufacturer/Supplier** Valero Marketing & Supply Company and Affiliates  
P.O. Box 696000  
San Antonio, TX 78269-6000  
**General Assistance** 210-345-4593  
**Emergency** 24 Hour Emergency 866-565-5220  
1-800-424-9300 (CHEMTREC USA)

## 2. Hazards Identification

**Physical state** Liquid.  
**Appearance** Oily liquid.  
**Emergency overview** WARNING!  
  
Combustible liquid and vapor.  
Harmful if swallowed - may enter lungs if swallowed or vomited. May cause skin and eye irritation. Prolonged and repeated skin contact may cause allergic skin reactions. In high concentrations, vapors and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May cause damage to the liver and kidneys. Possible adverse reproductive and developmental effects. Rags, steel wool, or waste contaminated with this product may spontaneously catch fire if improperly discarded.  
**OSHA regulatory status** This product is hazardous according to OSHA 29 CFR 1910.1200.  
**Potential health effects**  
**Routes of exposure** Eyes. Skin. Inhalation. Ingestion.  
**Eyes** May cause eye irritation.  
**Skin** May cause skin irritation. Prolonged and repeated skin contact may cause allergic skin reactions.  
**Inhalation** Under normal conditions of intended use, this material is not expected to be an inhalation hazard. In high concentrations, vapors and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea.  
**Ingestion** Harmful if swallowed - may enter lungs if swallowed or vomited.  
**Potential environmental effects** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

## 3. Composition / Information on Ingredients

| Components | CAS #     | Percent |
|------------|-----------|---------|
| Corn oil   | 8001-30-7 | 99      |
| Ethanol    | 64-17-5   | 1       |

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First Aid Measures

**First aid procedures**  
**Eye contact** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.  
In case of irritation from airborne exposure, move to fresh air. Get medical attention if symptoms persist.

|                     |                                                                                                                                                                                                                                                                                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Skin contact</b> | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If skin irritation or an allergic skin reaction develops, get medical attention. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes. |
| <b>Inhalation</b>   | If symptomatic, move to fresh air. Get medical attention if symptoms persist.                                                                                                                                                                                                            |
| <b>Ingestion</b>    | Call a physician or poison control center immediately. DO NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than the hips to help prevent aspiration.                |

5. Fire Fighting Measures

|                                                   |                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Flammable properties</b>                       | Combustible liquid and vapor. Test results from Sustained Combustion testing (ASTM D-4206) indicate that this material does not sustain combustion, however the material may cause a flash fire if exposed to an ignition source.<br>Rags, steel wool, or waste contaminated with this product may spontaneously catch fire if improperly discarded. |
| <b>Extinguishing media</b>                        |                                                                                                                                                                                                                                                                                                                                                      |
| <b>Suitable extinguishing media</b>               | Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Halon.                                                                                                                                                                                                                                                                      |
| <b>Protection of firefighters</b>                 |                                                                                                                                                                                                                                                                                                                                                      |
| <b>Specific hazards arising from the chemical</b> | Containers may explode when heated.                                                                                                                                                                                                                                                                                                                  |
| <b>Fire fighting equipment/instructions</b>       | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.                                                                                                                                                                                                                                                        |
| <b>Specific methods</b>                           | Move container from fire area if it can be done without risk. Use water spray to keep fire-exposed containers cool.                                                                                                                                                                                                                                  |
| <b>Hazardous combustion products</b>              | Carbon oxides. Nitrogen oxides. Hydrocarbons.                                                                                                                                                                                                                                                                                                        |

6. Accidental Release Measures

|                                |                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions</b>    | Wear appropriate personal protective equipment (See Section 8).                                                                                                                                                                                                                                                                                                               |
| <b>Methods for cleaning up</b> | Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a sealed container for chemical waste. Used rags or other cleaning materials should be soaked with water and placed in a sealed container.<br><br>Large Spills: Flush area with water. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal. |

7. Handling and Storage

|                 |                                                                                                                                                                                                                                                                                                                           |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b> | Immediately after use, place rags, steel wool, or waste in a sealed water-filled metal container. Avoid breathing mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. Observe good industrial hygiene practices. |
| <b>Storage</b>  | Keep container closed. Protect from light. Store in a cool place.                                                                                                                                                                                                                                                         |

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

| Components            | Type | Value    |
|-----------------------|------|----------|
| Ethanol (CAS 64-17-5) | STEL | 1000 ppm |

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Material                 | Type | Value    | Form                 |
|--------------------------|------|----------|----------------------|
| Corn Oil (CAS 8001-30-7) | PEL  | 5 mg/m3  | Respirable fraction. |
|                          |      | 15 mg/m3 | Total dust.          |

| Components            | Type | Value      |
|-----------------------|------|------------|
| Ethanol (CAS 64-17-5) | PEL  | 1900 mg/m3 |
|                       |      | 1000 ppm   |

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

| Components            | Type | Value                  |
|-----------------------|------|------------------------|
| Ethanol (CAS 64-17-5) | TWA  | 1880 mg/m3<br>1000 ppm |

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

| Material                 | Type | Value               | Form                      |
|--------------------------|------|---------------------|---------------------------|
| Corn Oil (CAS 8001-30-7) | TWA  | 3 mg/m3<br>10 mg/m3 | Respirable mist.<br>Mist. |
| Components               | Type | Value               |                           |
| Ethanol (CAS 64-17-5)    | STEL | 1000 ppm            |                           |

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

| Material                 | Type | Value    | Form  |
|--------------------------|------|----------|-------|
| Corn Oil (CAS 8001-30-7) | TWA  | 10 mg/m3 | Mist. |
| Components               | Type | Value    |       |
| Ethanol (CAS 64-17-5)    | STEL | 1000 ppm |       |

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

| Material                 | Type | Value                  | Form  |
|--------------------------|------|------------------------|-------|
| Corn Oil (CAS 8001-30-7) | TWA  | 10 mg/m3               | Mist. |
| Components               | Type | Value                  |       |
| Ethanol (CAS 64-17-5)    | TWA  | 1880 mg/m3<br>1000 ppm |       |

**Mexico. Occupational Exposure Limit Values**

| Material                 | Type | Value                  | Form  |
|--------------------------|------|------------------------|-------|
| Corn Oil (CAS 8001-30-7) | TWA  | 10 mg/m3               | Mist. |
| Components               | Type | Value                  |       |
| Ethanol (CAS 64-17-5)    | TWA  | 1900 mg/m3<br>1000 ppm |       |

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Engineering controls</b>           | Ensure adequate ventilation, especially in confined areas.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Personal protective equipment</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Eye / face protection</b>          | Wear safety glasses with side shields (or goggles).                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Skin protection</b>                | Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.                                                                                                                                                                                                                                                                                                                             |
| <b>Respiratory protection</b>         | If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Respirator type: Use NIOSH approved respirator with organic vapor/acid gas protection. |
| <b>General hygiene considerations</b> | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.                                                                                                                                                                                                                                                               |

**9. Physical & Chemical Properties**

|                       |                             |
|-----------------------|-----------------------------|
| <b>Appearance</b>     | Oily liquid.                |
| <b>Physical state</b> | Liquid.                     |
| <b>Form</b>           | Oil.                        |
| <b>Color</b>          | Light yellow.               |
| <b>Odor</b>           | Slight characteristic odor. |
| <b>Odor threshold</b> | Not available.              |
| <b>pH</b>             | Not available.              |
| <b>Vapor pressure</b> | Not available.              |

|                                                       |                                                                                                                               |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Vapor density</b>                                  | Not available.                                                                                                                |
| <b>Boiling point</b>                                  | Not available.                                                                                                                |
| <b>Melting point/Freezing point</b>                   | 6.8 °F (-14 °C) / 32 °F (0 °C) Approximate                                                                                    |
| <b>Solubility (water)</b>                             | Insoluble in cold water.                                                                                                      |
| <b>Specific gravity</b>                               | 0.918                                                                                                                         |
| <b>Flash point</b>                                    | 158 °F (70 °C) Closed Cup (This material does not support combustion - see Section 5)<br>465.8 °F (241 °C) Cleveland Open Cup |
| <b>Flammability limits in air, upper, % by volume</b> | 19 % (Ethanol)                                                                                                                |
| <b>Flammability limits in air, lower, % by volume</b> | 3.3 % (Ethanol)                                                                                                               |
| <b>Auto-ignition temperature</b>                      | Not available.                                                                                                                |

## 10. Chemical Stability & Reactivity Information

|                                           |                                                |
|-------------------------------------------|------------------------------------------------|
| <b>Chemical stability</b>                 | Material is stable under normal conditions.    |
| <b>Conditions to avoid</b>                | Heat, sparks, flames, elevated temperatures.   |
| <b>Incompatible materials</b>             | Strong oxidizing agents. Acids. Alkalis.       |
| <b>Hazardous decomposition products</b>   | No hazardous decomposition products are known. |
| <b>Possibility of hazardous reactions</b> | Hazardous polymerization does not occur.       |

## 11. Toxicological Information

|                        |                                                                                                                                                                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sensitization</b>   | Prolonged and repeated skin contact may cause allergic skin reactions.                                                                                                                                                                                                            |
| <b>Acute effects</b>   | Harmful if swallowed - may enter lungs if swallowed or vomited. May cause skin and eye irritation. In high concentrations, vapors and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea.                                                 |
| <b>Chronic effects</b> | The substance is toxic to blood, the reproductive system, liver, upper respiratory tract, skin, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Contains material that may adversely affect the developing fetus. |
| <b>Carcinogenicity</b> | IARC has classified ethanol in alcoholic beverages as Group 1 (carcinogenic to humans). Ethanol alone has not been evaluated for carcinogenicity by IARC.                                                                                                                         |

### ACGIH Carcinogens

Ethanol (CAS 64-17-5)

A3 Confirmed animal carcinogen with unknown relevance to humans.

|                             |                                                                  |
|-----------------------------|------------------------------------------------------------------|
| <b>Reproductive effects</b> | Ethanol has demonstrated human effects of reproductive toxicity. |
|-----------------------------|------------------------------------------------------------------|

## 12. Ecological Information

|                                        |                                                  |
|----------------------------------------|--------------------------------------------------|
| <b>Ecotoxicity</b>                     | Not expected to be harmful to aquatic organisms. |
| <b>Persistence and degradability</b>   | No data available.                               |
| <b>Bioaccumulation / Accumulation</b>  | No data available.                               |
| <b>Mobility in environmental media</b> | No data available.                               |

## 13. Disposal Considerations

|                                              |                                                                                                                                                                                                                                  |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Disposal instructions</b>                 | Dispose of contents/container in accordance with local/regional/national/international regulations. When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261. |
| <b>Waste from residues / unused products</b> | Dispose of in accordance with local regulations.                                                                                                                                                                                 |
| <b>Contaminated packaging</b>                | Since emptied containers may retain product residue, follow label warnings even after container is emptied.                                                                                                                      |

## 14. Transport Information

### DOT

Not regulated as a hazardous material by DOT.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**TDG**

Not regulated as dangerous goods.

**General**

Test results from Sustained Combustion testing (ASTM D-4206) indicate that this material does not sustain combustion.

**15. Regulatory Information****US federal regulations**

This product is hazardous according to OSHA 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)**

None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****Hazard categories**

Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance (40 CFR 355, Appendix A)**

No

**Section 311/312 (40 CFR 370)**

Yes

**Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)**

Not controlled

**WHMIS status**

Controlled

**WHMIS classification**

B3 - Combustible Liquids  
D2A - Other Toxic Effects-VERY TOXIC  
D2B - Other Toxic Effects-TOXIC

**WHMIS labeling****Inventory status****Country(s) or region****Inventory name****On inventory (yes/no)\***

|             |                                                                        |     |
|-------------|------------------------------------------------------------------------|-----|
| Australia   | Australian Inventory of Chemical Substances (AICS)                     | Yes |
| Canada      | Domestic Substances List (DSL)                                         | Yes |
| Canada      | Non-Domestic Substances List (NDSL)                                    | No  |
| China       | Inventory of Existing Chemical Substances in China (IECSC)             | Yes |
| Europe      | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe      | European List of Notified Chemical Substances (ELINCS)                 | No  |
| Japan       | Inventory of Existing and New Chemical Substances (ENCS)               | No  |
| Korea       | Existing Chemicals List (ECL)                                          | Yes |
| New Zealand | New Zealand Inventory                                                  | Yes |

| Country(s) or region        | Inventory name                                                    | On inventory (yes/no)* |
|-----------------------------|-------------------------------------------------------------------|------------------------|
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes                    |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                     | Yes                    |

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US - California Hazardous Substances (Director's): Listed substance**

Ethanol (CAS 64-17-5) Listed.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.

**US - New Jersey RTK - Substances: Listed substance**

Ethanol (CAS 64-17-5) Listed.

**US. Massachusetts RTK - Substance List**

Corn oil (CAS 8001-30-7) Listed.

Ethanol (CAS 64-17-5) Listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

Corn oil (CAS 8001-30-7) Listed.

Ethanol (CAS 64-17-5) Listed.

## 16. Other Information

**Further information** HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings** Health: 2\*  
Flammability: 2  
Physical hazard: 0

**NFPA ratings** Health: 2  
Flammability: 2  
Instability: 0

**Disclaimer** This Material Safety Data Sheet (MSDS) was prepared in accordance with 29 CFR 1910.1200 by Valero Marketing & Supply Co., ("VALERO"). VALERO does not assume any liability arising out of product use by others. The information, recommendations, and suggestions presented in this MSDS are based upon test results and data believed to be reliable. The end user of the product has the responsibility for evaluating the adequacy of the data under the conditions of use, determining the safety, toxicity and suitability of the product under these conditions, and obtaining additional or clarifying information where uncertainty exists. No guarantee expressed or implied is made as to the effects of such use, the results to be obtained, or the safety and toxicity of the product in any specific application. Furthermore, the information herein is not represented as absolutely complete, since it is not practicable to provide all the scientific and study information in the format of this document, plus additional information may be necessary under exceptional conditions of use, or because of applicable laws or government regulations.