

Safety Data Sheet

Section 1 – PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: Cardinal Ethanol, LLC
ADDRESS: 1554 N. 600 East
Union City, IN 47390
PHONE NUMBER: 765-964-3137

EMERGENCY INFORMATION: CHEMTREC 24 HOUR EMERGENCY PHONE NUMBER: 1-800-424-9300

PRODUCT NAME: Corn Oil
COMMON NAME: Corn Oil
CHEMICAL NAME: Corn Oil
CHEMICAL FORMULA: Not Applicable
CHEMICAL FAMILY: Oil

Section 2 – HAZARDS IDENTIFICATION

POTENTIAL ACUTE HEALTH EFFECTS: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

POTENTIAL CHRONIC HEALTH EFFECTS:

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

Section 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENTS	PERCENTAGES (by weight)	CAS #	TLV (ppm)
<u>Major components</u> Corn Oil	100%	8001-30-7	Not Applicable

Section 4 – FIRST AID MEASURES

EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact - Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5 – FIRE FIGHTING MEASURES

FLAMMABILITY OF THE PRODUCT: May be combustible at high temperature.

FLASH POINT: CLOSED CUP: 254°C (489.2°F).

AUTO IGNITION TEMP: 392°C (737.6°F)

FLAMMABLE LIMITS IN AIR
% BY VOLUME

LOWER
Not applicable

UPPER
Not applicable

PRODUCTS OF COMBUSTION: Not available.

FIRE HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES: Slightly flammable to flammable in presence of heat.

EXPLOSION HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

FIRE FIGHTING MEDIA AND INSTRUCTIONS:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

SPECIAL REMARKS ON FIRE HAZARDS: Not available.

SPECIAL REMARKS ON EXPLOSION HAZARDS: Not available.

HAZARD RATINGS:	NFPA 704:	Health- 0	Fire- 1	Reactivity- 1
	HMIS:	Health- 1	Flammable- 1	Reactive- 0

Section 6 – ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

LARGE SPILL: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7 – HANDLING AND STORAGE

PRECAUTIONS: Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe gas/fumes/vapor/spray. Keep away from incompatibles such as oxidizing agents.

STORAGE: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8 – EXPOSURE CONTROL – PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the workstation location.

PERSONAL PROTECTION: Face shield. Synthetic apron. Gloves (impervious)

PERSONAL PROTECTION IN CASE OF A LARGE SPILL:

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

EXPOSURE LIMITS:

ACHIH - TLV: 10 mg/m³

OSHA - PEL: 15 mg/m³

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Liquid

ODOR: Characteristic. (Slight)

SPECIFIC GRAVITY (water=1): 0.918

VAPOR PRESSURE: Not Available

COLOR: Yellow (Light)

BOILING POINT: Not Available

SOLUBLE IN WATER: Insoluble in cold water

VAPOR DENSITY (air=1): Not Available

FREEZING POINT °C: approximately 0

pH: Not Applicable

MELTING POINT: -14°C (6.8°F)

CRITICAL TEMPERATURE: Not Available

EVAPORATION RATE (butyl acetate=1): Not Applicable

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not Available

Section 10 – STABILITY AND REACTIVITY

STABILITY: The product is stable.

INSTABILITY TEMPERATURE: Not available.

CONDITIONS OF INSTABILITY: Excess heat, incompatible materials

INCOMPATIBILITY WITH VARIOUS SUBSTANCES: Reactive with oxidizing agents.

CORROSIVITY: Non-corrosive in presence of glass.

SPECIAL REMARKS ON REACTIVITY: Not available.

SPECIAL REMARKS ON CORROSIVITY: Not available.

POLYMERIZATION: Will not occur.

Section 11 – TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY: Absorbed through skin. Eye contact.

TOXICITY TO ANIMALS:

LD50: Oral [Rat] >100 ml/kg

LC50: Not available.

CHRONIC EFFECTS ON HUMANS: Not available.

OTHER TOXIC EFFECTS ON HUMANS: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

SPECIAL REMARKS ON TOXICITY TO ANIMALS: Not available.

SPECIAL REMARKS ON CHRONIC EFFECTS ON HUMANS:

No information on adverse reproductive effects on humans found. Corn oil is used a vehicle in many toxicology studies, and is thereby assumed not to exert important effects in its own right. In fact, the majority of reproductive and developmental toxicology studies using corn oil controls do not note adverse effects; however, there have been only a few studies that directly assess this issue, as follows: Adverse reproductive effects (biochemical and metabolic effects and developmental abnormalities on new born) were found when pregnant rats were fed extremely high amounts of corn oil (36,000 mg/kg and 12,500 mg/kg)

SPECIAL REMARKS ON OTHER TOXIC EFFECTS ON HUMANS:

Acute Potential Health Effects:

Skin: May cause skin irritation. Low hazard for usual industrial handling

Eyes: May cause transient irritation.

Inhalation: Low hazard for usual industrial handling

Ingestion: Ingestion of large amounts may cause gastrointestinal (digestive) tract irritation. Expected to be a low ingestion hazard

Chronic Potential Health Effects: Repeated or prolonged contact may cause allergic reactions in sensitive individuals.

Section 12 – ECOLOGICAL INFORMATION

ECOTOXICITY: Not Available.

BOD5 and COD: Not available.

PRODUCTS OF BIODEGRADATION: Possibly hazardous short-term degradation products are not likely. However, long-term degradation products may arise.

TOXICITY OF THE PRODUCTS OF BIODEGRADATION: Not available.

SPECIAL REMARKS ON THE PRODUCTS OF BIODEGRADATION: Not available.

Section 13 – DISPOSAL CONSIDERATION

SPILL PROCEDURES: Sweep into container.

WASTE DISPOSAL PROCEDURES: Waste must be disposed of in accordance with all federal, state and local environmental control regulations.

Section 14 – TRANSPORT INFORMATION

DOT CLASSIFICATION: Not a DOT controlled material (United States).

IDENTIFICATION: Not applicable.

SPECIAL PROVISIONS FOR TRANSPORT: Not applicable.

Section 15 – REGULATORY INFORMATION

FEDERAL AND STATE REGULATIONS:

Rhode Island RTK hazardous substances: Corn oil
Pennsylvania RTK: Corn oil
TSCA 8(b) inventory: Corn oil

OTHER REGULATIONS: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

OTHER CLASSIFICATIONS:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): This product is not classified according to the EU regulations. S24/25- Avoid contact with skin and eyes.

HMIS (U.S.A.):

Health Hazard: 1
Fire Hazard: 1
Reactivity: 0

Personal Protection: D

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

Health: 0
Flammability: 1
Reactivity: 1
Specific hazard:

Protective Equipment:

Gloves (impervious)
Synthetic apron
Not applicable
Face shield

Section 16 – OTHER INFORMATION

Prepared By: Cardinal Ethanol, LLC

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