

Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • **Crude Corn Oil**
Synonyms • Corn Oil, N.F.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Animal nutrition, biodiesel feed-stock

1.3 Details of the supplier of the safety data sheet

Manufacturer • Dakota Ethanol
 46269 SD Highway 34
 Wentworth, SD 57075
 United States
 www.dakotaethanol.com
Telephone (General) • (605) 483-2676

1.4 Emergency telephone number

Manufacturer • 1-800-424-9300 - CHEMTREC

Section 2: Hazards Identification

UN GHS

According to Third Revised Edition

2.1 Classification of the substance or mixture

UN GHS • Skin Mild Irritation 3 - H316

2.2 Label elements

UN GHS

WARNING

Hazard statements

• H316 - Causes mild skin irritation

Precautionary statements

Prevention • P280 - Wear protective gloves.

Response • P332+P313 - If skin irritation occurs: Get medical advice/attention.

Storage/Disposal • P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

UN GHS • According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixtureOSHA HCS

- Not classified

2.2 Label elementsOSHA HCS

- Not required.

2.3 Other hazardsOSHA HCS

- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Canada

According to WHMIS

2.1 Classification of the substance or mixtureWHMIS

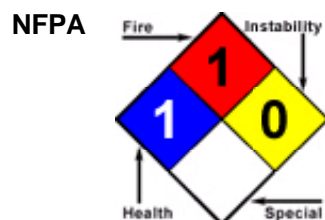
- Uncontrolled

2.2 Label elementsWHMIS

- Not required.

2.3 Other hazardsWHMIS

- In Canada, the product mentioned above is uncontrolled under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients**3.1 Substances**

Hazardous Components					
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive	Comments
Corn oil	CAS:8001-30-7 EINECS:232-281-2	100%	Ingestion/Oral-Rat LD50 · >100 mL/kg	UN GHS: Skin Irrit 3	NDA

3.2 Mixtures

- Material does not meet the criteria of a mixture according to United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin

- IF ON SKIN: Wash with plenty of soap and water.

Eye

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- Immediate medical attention after exposure to this material not expected to be necessary. No special treatment indicated related to exposure to this material.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Dry chemical powder, water spray, fog or foam.

Unsuitable Extinguishing Media • Water jet.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Corn oil mist is combustible.

Hazardous Combustion Products • Carbon dioxide and possibly carbon monoxide.

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Spilled corn oil is very slippery. Avoid walking through spilled material and promptly clean up any spills.

Emergency Procedures

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area) As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Stay upwind. Keep unauthorized personnel away.

6.2 Environmental precautions

- No special environmental precautions necessary. Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Wash spill area with detergent and water.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage**7.1 Precautions for safe handling****Handling**

- Keep away from heat and ignition sources – No Smoking. Use good safety and industrial hygiene practices. Promptly clean up any spilled material. Do not use in areas without adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities**Storage**

- Store in a cool, dry place. Keep away from heat and sources of ignition.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection**8.1 Control parameters**

Exposure Limits/Guidelines		
	Result	Manufacturer
Crude Corn Oil	TWAs	15 mg/m ³ TWA , OSHA PEL (Total) 5 mg/m ³ TWA , OSHA PEL (Resp) 10 mg/m ³ TWA , NIOSH PEL (Total) 5 mg/m ³ TWA , NIOSH PEL (Resp)

8.2 Exposure controls**Engineering Measures/Controls**

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment Pictograms**Respiratory**

- In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- Wear appropriate gloves.

General Industrial Hygiene Considerations

- Do not get in eyes or on skin or clothing. Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

Key to abbreviations

PEL = Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA)

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Yellow, or reddish-yellow liquid with slight corn odor.
Color	Yellow, or reddish-yellow.	Odor	Slight corn.
Taste	No data available	Particulate Type	No data available
Particulate Size	No data available	Aerosol Type	No data available
Odor Threshold	No data available	Physical and Chemical Properties	No data available
General Properties			
Boiling Point	No data available	Melting Point	-14 C(6.8 F)
Decomposition Temperature	No data available	Heat of Decomposition	No data available
pH	No data available	Specific Gravity/Relative Density	0.918 Water=1
Density	No data available	Bulk Density	No data available
Water Solubility	Negligible	Solvent Solubility	No data available
Viscosity	No data available	Explosive Properties	No data available
Oxidizing Properties:	No data available		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available	VOC (Wt.)	No data available
VOC (Vol.)	No data available	Volatiles (Wt.)	No data available
Volatiles (Vol.)	No data available		
Flammability			
Flash Point	254 C(489.2 F)	Flash Point Test Type	No data available
UEL	No data available	LEL	No data available
Autoignition	No data available	Self-Accelerating Decomposition Temperature (SADT)	No data available
Heat of Combustion (ΔH_c)	No data available	Burning Time	No data available
Flame Duration	No data available	Flame Height	No data available
Flame Extension	No data available	Ignition Distance	No data available
Flammability (solid, gas)	No data available		
Environmental			
Half-Life	No data available	Octanol/Water Partition coefficient	No data available
Coefficient of water/oil distribution	No data available	Bioaccumulation Factor	No data available
Bioconcentration Factor	No data available	Biochemical Oxygen Demand BOD/BOD5	No data available
Chemical Oxygen Demand	No data available	Persistence	No data available
Degradation	No data available		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Heat, sparks, open flame.

10.5 Incompatible materials

- Oxidizers

10.6 Hazardous decomposition products

- Not applicable.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Component Name	CAS	Data
Corn oil (100%)	8001-30-7	Acute Toxicity: orl-rat LD50:>100 mL/kg; orl-rat TDLo:18.36 mg/kg/4D-I; Irritation: skn-hmn 300 mg/3D-I MLD; Reproductive: orl-rat TDLo:390 mL/kg (2W pre-3D post); Tumorigen/Carcinogen: orl-rat TDLo:2600 mL/kg/2Y-I

GHS Properties	Classification
Acute toxicity	UN GHS • Classification criteria not met
Skin corrosion/Irritation	UN GHS • Skin Mild Irritation 3
Serious eye damage/Irritation	UN GHS • Classification criteria not met
Skin sensitization	UN GHS • Classification criteria not met
Respiratory sensitization	UN GHS • Classification criteria not met
Aspiration Hazard	UN GHS • Classification criteria not met
Carcinogenicity	UN GHS • Classification criteria not met
Germ Cell Mutagenicity	UN GHS • Classification criteria not met
Toxicity for Reproduction	UN GHS • Classification criteria not met
STOT-SE	UN GHS • Classification criteria not met
STOT-RE	UN GHS • Classification criteria not met

Potential Health Effects

Inhalation

Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- No information on adverse effects in humans found.

Skin

Acute (Immediate)

- Causes mild skin irritation.

Chronic (Delayed)

- No information on adverse effects in humans found.

Eye**Acute (Immediate)**

- Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

- No information on adverse effects in humans found.

Ingestion**Acute (Immediate)**

- Ingestion of large amounts of corn has been shown to have laxative effects.

Chronic (Delayed)

- No information on adverse effects in humans found.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- Material data lacking.

12.6 Other adverse effects

- Material data lacking.

Section 13 - Disposal Considerations

13.1 Waste treatment methods**Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC

- Not relevant.

Code

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • None

State Right To Know				
Component	CAS	MA	NJ	PA
Corn oil	8001-30-7	No	No	Yes

Inventory				
Component	CAS	Canada DSL	Canada NDSL	TSCA
Corn oil	8001-30-7	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

- Corn oil 8001-30-7 100% Uncontrolled product according to WHMIS classification criteria

Canada - WHMIS - Ingredient Disclosure List

- Corn oil 8001-30-7 100% Not Listed

Environment

Canada - CEPA - Priority Substances List

- Corn oil 8001-30-7 100% Not Listed

Mexico

Other

Mexico - Hazard Classifications

- Corn oil 8001-30-7 100% Not Listed

Mexico - Regulated Substances

- Corn oil 8001-30-7 100% Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

- Corn oil 8001-30-7 100% Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

- Corn oil 8001-30-7 100% Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

- Corn oil 8001-30-7 100% Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

- Corn oil 8001-30-7 100% Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

- Corn oil 8001-30-7 100% Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

- Corn oil 8001-30-7 100% Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

- Corn oil 8001-30-7 100% Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

- Corn oil 8001-30-7 100% Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

- Corn oil 8001-30-7 100% Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

- Corn oil 8001-30-7 100% Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

- Corn oil 8001-30-7 100% Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

- Corn oil 8001-30-7 100% Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

- Corn oil 8001-30-7 100% Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

- Corn oil 8001-30-7 100% Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

- Corn oil 8001-30-7 100% Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

- Corn oil 8001-30-7 100% Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

- Corn oil 8001-30-7 100% Not Listed

United States - Rhode Island

Labor

U.S. - Rhode Island - Hazardous Substance List

- Corn oil 8001-30-7 100% Flammable

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date

- 21/February/2012

Preparation Date

- 21/February/2012

Disclaimer/Statement of Liability

- The information contained herein is believed to be accurate. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.

Key to abbreviations

NDA = No Data Available
