



Safety Data Sheet

Biodiesel

SECTION 1 IDENTIFICATION

Product Name: Biodiesel

Synonyms: Biodiesel from soybean oil, B100, methyl soyate, soy methyl esters, rapeseed methyl esters (RME), methyl tallowate, fatty acid methyl esters, fatty acid alky; esters

SDS #:

Product Use: Fuel, Solvent, Cleaning Agent

Restrictions on Use: Use only as directed

Manufacturer:

Sinclair Oil Company
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SDS Date of Preparation: April 24, 2015

SECTION 2: HAZARDS IDENTIFICATION

Physical	Health
Flammable Liquid Category 4	Not hazardous

Label Elements:

Warning!

Hazard Phrases

Combustible Liquid

Precautionary Phrases

Keep away from flames and hot surfaces. No smoking.

Wear protective gloves.

In case of fire: Use water fog, foam, carbon dioxide or dry chemical to extinguish.

Store in a well-ventilated place. Keep cool.

Dispose of contents and container in accordance with local and national regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Methyl Esters (Soybean Oil)	67784-80-9	0-100%
Methyl Esters (Rapeseed Oil)	73891-99-3	0-100%
Methyl Esters (Tallow)	61788-61-2	0-100%
Methyl Esters, Fatty Acids C12-C18	68937-84-8	0-100%

SECTION 4 EMERGENCY and FIRST AID PROCEDURES

Eye Contact: Immediately flush eyes with water for several minutes. Get medical attention if irritation persists.

Skin Contact: Wash thoroughly with soap and water. Remove contaminated clothing and launder before reuse. Get medical attention if irritation or rash develops or persists.

Inhalation: Remove to fresh air. Get medical attention if symptoms develop.

Ingestion: Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.

Most important symptoms/effects, acute and delayed: May cause mild eye irritation. Prolonged skin contact may cause irritation, drying and cracking of the skin. Excessive inhalation of dust may cause irritation of the nose, throat and upper respiratory tract irritation. Swallowing may cause gastric upset, nausea and diarrhea.

Indication of immediate medical attention and special treatment, if necessary: None required under normal conditions of use.

SECTION 5 FIRE and EXPLOSION HAZARD DATA

Suitable extinguishing media: Water fog, foam, carbon dioxide or dry chemical to extinguish. A solid stream of water may cause the product to float and spread the fire.

Specific hazards arising from the chemical: Combustible liquid. Closed containers may explode if exposed to extreme heat. Combustion will produce carbon and nitrogen oxides.

Special protective equipment and precautions for fire-fighters: Contain with an inert absorbent and place into a closable container for disposal. Use non-sparking tools and equipment. If spill has not ignited, use water spray to disperse the vapors and protect personnel attempting to stop leak. Prevent entry in storm sewers and waterways. Runoff can cause a fire or explosion hazard in sewers.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate protective equipment. Eliminate ignition sources and ventilate the area. Wash thoroughly after handling.

Environmental hazards: Avoid release into the environment. Report spill as required by local and federal regulations.

Methods and materials for containment and cleaning up: Treat as an oil spill. Dike liquid spill with an inert absorbent and place into closable container for disposal. Scrape up solid spills with mechanical means and place into a container for disposal. Prevent entry in storm sewers and waterways. Runoff can cause a fire or explosion hazard in sewers.

SECTION 7 HANDLING and STORAGE

Precautions for safe handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Wash thoroughly after handling. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep product away from heat, sparks, flames and all other sources of ignition. Do not permit smoking in use or storage areas. Use with non-sparking tools and explosion proof equipment. Electrically bond and ground containers for transfer.

Conditions for safe storage, including any incompatibilities: Store in a cool area away from oxidizing agents and other incompatible materials. Protect containers from physical damage.

Empty containers retain product residues. Follow all SDS precautions in handling empty containers.

SECTION 8 EXPOSURE CONTROLS and PERSONAL PROTECTION

Exposure Guidelines:

INGREDIENTS	EXPOSURE LIMITS
Methyl Esters (Soybean Oil)	15 mg/m ³ TWA (respirable), 15 mg/m ³ TWA (Total dust) OSHA PEL (as vegetable oil mist)
Methyl Esters (Rapeseed Oil)	15 mg/m ³ TWA (respirable), 15 mg/m ³ TWA (Total dust) OSHA PEL (as vegetable oil mist)
Methyl Esters (Tallow)	None Established
Methyl Esters, Fatty Acids C12-C18	None Established

Appropriate engineering controls: Good general room ventilation (equivalent to outdoors) should be adequate under normal conditions. If the recommended exposure limit is exceeded increased mechanical ventilation such as local exhaust may be required.

Respiratory protection: None needed under normal use conditions with adequate ventilation. If exposures are exceeded, use a NIOSH approved organic vapor respirator with dust/mist cartridges. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

Skin protection: Impervious gloves such as nitrile rubber are recommended for prolonged skin contact.

Eye protection: Wear chemical safety goggles if contact is possible.

Other: Wear protective clothing as required to prevent contamination of personal clothing. Suitable washing facilities should be available in the work area.

SECTION 9 PHYSICAL and CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Pale yellow to amber liquid (if undyed)

Odor: Mild odor.

Odor threshold: Not available	pH: Not applicable
Melting point/Pourpoint: 30-54°F (-1 to 12°C)	Boiling Point: >536° F (>280°C)
Flash point: >199°F (>39°C)	Evaporation rate: Not available
Flammability (solid, gas): Not applicable	
Flammable limits: LEL: Not available	UEL: Not available
Vapor pressure: <1 mmHg @ 20°C	Vapor density: Not available
Relative density: 0.87-0.89 @ 25°C	Solubility: Negligible
Partition coefficient: n-ctanol/water: Not available	Auto-ignition temperature: 500°F (260°C)
Decomposition temperature: Not available	Viscosity: 3.8-5.0 cSt @40°C

SECTION 10 STABILITY and REACTIVITY

Reactivity: This product is not expected to be reactive.

Chemical stability: The product is stable.

Possibility of hazardous reactions: None known.

Conditions to avoid: Avoid sources of ignition.

Incompatible materials: Avoid strong oxidizing agents, reducing agents, acids and alkalis.

Hazardous decomposition products: Thermal decomposition may yield carbon and nitrogen oxides and other products of incomplete combustion.

SECTION 11 TOXICOLOGICAL INFORMATION

Health Hazards:

Inhalation: High concentrations of mists may cause irritation of the nose, throat and upper respiratory tract. .

Skin Contact: Prolonged skin contact may cause irritation and defatting of the skin.

Eye Contact: Vapors may cause irritation with redness, tearing and pain.

Ingestion: Swallowing large amounts may cause gastrointestinal irritation, nausea and diarrhea.

Chronic Effects of Overexposure: None known.

Mutagenicity: None of the components have been shown to cause mutagenicity activity.

Sensitization: None of the components have been shown to cause sensitization animals and humans.

Reproductive Toxicity: None of the components have been shown to cause reproductive or developmental toxicity.

Carcinogenicity: None of the components are listed a carcinogen by IARC, NTP or OSHA.

Acute Toxicity Values: Product ATE: Oral >5000 mg/kg

Methyl Esters (Soybean Oil): Oral rat LD50 >23,500 mg/kg,

Methyl Esters (Rapeseed Oil): Oral rat LD50 >4985 mg/L, Dermal rat LD50 >2000 mg/L

Methyl Esters (Tallow): Oral rat LD50 >5000 mg/kg, Dermal rabbit LD50 >2000 mg/kg

Methyl Esters, Fatty Acids C12-C18: No toxicity data available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Methyl Esters (Soybean Oil): 96 hr LC50 >100 mg/L, 48 hr EC50 daphnia magna >100 mg/L

Methyl Esters (Rapeseed Oil): 96 hr LC50 Danio rerio 625 mg/L, 48 hr EC50 daphnia magna >100 mg/L

Methyl Esters (Tallow): 96 hr LC50 Danio rerio >1000 mg/L, 48 hr EC50 daphnia magna >4.8 mg/L

Methyl Esters, Fatty Acids C12-C18: No data available

Persistence and degradability: Product is biodegradable.

Bioaccumulative potential: There is a potential for bioaccumulation.

Mobility in soil: The product will float on water.

Other adverse effects: None known.

SECTION 13: DISPOSAL INFORMATION

Waste Disposal Method: Dispose in accordance with all local, state and federal regulations.

SECTION 14: TRANSPORTATION INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	None	Not Regulated			
TDG	None	Not Regulated			
IMDG	None	Not Regulated			
IATA	None	Not Regulated			

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not determined.

Special precautions: None known.

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product is not subject to CERCLA reporting requirements as it is sold. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

EPA SARA 311 Hazard Classification: Fire Hazard

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

CALIFORNIA PROPOSITION 65: This product does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.

Australia AICS: All of the components are listed on the Australian Inventory of Chemical Substances.

Canada DSL: All of the components are listed on the Canadian Domestic Substances List.

China: All the components are listed on Inventory of Existing Chemical Substances in China.

Korea: All the components are listed on the Korean Existing Chemical List.

New Zealand: All the components are listed on the New Zealand Inventory of Chemicals.

US EPA Toxic Substances Control Act: All of the components of this product are listed on the TSCA inventory.

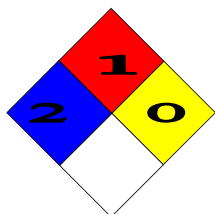
SECTION 16: OTHER INFORMATION

SDS Revision History: Converted to GHS format – all Sections revised

Date of current revision: April 25, 2015

Date of previous revision: January 26, 2009

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



**Health: 2
Flammability : 1
Instability: 0
Specific Hazard:**

Disclaimer: This product material safety data sheet provides health and safety information. The product should be used in applications consistent with this product literature. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations.

This material safety data sheet is provided in good faith and meets the requirements of the hazardous communication provisions of SARA TITLE III and 29 CFR 1910.1200(g) of the OSHA regulations. The above information is based on review of available information Sinclair believes is reliable and is supplied for informational purposes only. Sinclair does not guarantee its completeness or accuracy. Since conditions of use are outside the control of Sinclair, Sinclair disclaims all warranties, express or implied, and any liability for damage or injury which results from the use of the above data. Nothing herein is intended to permit infringement of valid patents and licenses.