

Safety Data Sheet
Bio Diesel (B2-B20)

SECTION 1 IDENTIFICATION

Product Name: Bio Diesel (B2-B20)
Synonyms: B2, B5, B10, B11, B20, Bio Diesel

SDS #: F2.1

Product Use: Diesel Fuel
Restrictions on Use: Use only as directed

Manufacturer:
Sinclair Oil Company
P.O. Box 30825
Salt Lake City, Utah 84130

Telephone: General Information: (801) 524-2777 **Fax:** (801) 524-2740
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SDS Date of Preparation: April 24, 2015

SECTION 2: HAZARDS IDENTIFICATION

Classification:

Physical	Health
Flammable Liquid Category 3	Acute Toxicity Category 4 (Inhalation) Aspiration Toxicity Category 1 Skin Irritation Category 2 Specific Target Organ Toxicity Repeat Exposure Category 1 Carcinogen Category 2

Label Elements:
Danger!



Hazard Phrases:

Flammable liquid and vapor.
Harmful if inhaled.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Suspected of causing cancer.
Causes damage to thymus, liver and bone marrow through prolonged or repeated exposure.

Precautionary Phrases:

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames, and hot surfaces. No smoking.
Keep container tightly closed.

Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe mist, vapors or spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, eye protection.

Response

IF SWALLOWED: Immediately call a POISON CENTER or doctor.
Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
If skin irritation occurs: Get medical attention.
Take off contaminated clothing and wash it before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor.
IF exposed or concerned: Get medical attention.
In case of fire: Use water fog, foam, carbon dioxide, or dry chemical to extinguish.

Storage and Disposal

Store in a well-ventilated place. Keep cool. Keep container tightly closed.
Store locked up.
Dispose of contents and container in accordance with local and national regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Diesel Fuel	68476-34-6	80-98%
Methyl Esters (Soybean Oil)	67784-80-9	0-20%
Methyl Esters (Rapeseed Oil)	73891-99-3	0-20%
Methyl Esters (Tallow)	61788-61-2	0-20%
Methyl Esters, Fatty Acids C12-C18	68937-84-8	0-20%
Naphthalene	91-20-3	0-3%

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: Remove contaminated clothing and flush skin with water for several minutes. Wash thoroughly with soap and water. Get medical attention if irritation develops or persists. Launder clothing before reuse. Discard contaminated shoes.

Inhalation: Remove to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get medical attention.

Ingestion: DO NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconsciousness person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Get immediate medical attention.

Most important symptoms/effects, acute and delayed: May cause eye irritation. Causes skin irritation with redness and drying. Inhalation may cause respiratory irritation and central nervous system effects. Harmful or fatal if

swallowed. Aspiration during swallowing or vomiting may cause lung damage. May cause cancer based on animal data.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is required for ingestion.

SECTION 5 FIRE and EXPLOSION HAZARD DATA

Suitable extinguishing media: Use water fog, foam, carbon dioxide, or dry chemical. Do not use a steady stream of water. Product may float on the surface of water and create a floating fire hazard.

Specific hazards arising from the chemical: This product is flammable and forms explosive mixtures with air. Vapors are heavier than air and will travel along surfaces to remote ignition sources and flash back. Closed containers may explode if exposed to extreme heat. Combustion may produce carbon oxides and other products of incomplete combustion.

Special protective equipment and precautions for fire-fighters: Firefighters should wear full emergency equipment and a NIOSH approved positive pressure self-contained breathing apparatus. Cool fire exposed container with water. Do not allow run-off from firefighting to enter drains or water courses.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate protective equipment. Eliminate ignition sources and ventilate the area with explosion proof equipment. 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: 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 7 HANDLING and STORAGE

Precautions for safe handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Wash thoroughly after handling. Use only 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

Do not cut, drill, grind or weld on or near containers, even empty containers. Empty containers retain product residues can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for safe storage, including any incompatibilities: Store in accordance with regulations for the storage of flammable liquids. Store in a dry, well ventilated area away from heat, direct sunlight and all sources of ignition. Store away from oxidizers and other incompatible materials. Protect containers from physical damage.

SECTION 8 EXPOSURE CONTROLS and PERSONAL PROTECTION

Exposure Guidelines:

INGREDIENTS	EXPOSURE LIMITS
Diesel Fuel	100 mg/m ³ TWA ACGIH TLV (inhalable fraction and vapor)
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
Naphthalene	10 ppm TWA OSHA PEL 10 ppm, skin TWA ACGIH TLV

Appropriate engineering controls: Use with local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment where required

Respiratory protection: If exposures are exceeded, use a NIOSH approved organic vapor respirator appropriate for the form and concentration of the contaminants should be used. 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 recommended to prevent skin contact.

Eye protection: Wear chemical safety goggles to avoid eye contact.

Other: Impervious coveralls, apron and boots is required to prevent skin contact and contamination of personal clothing. A safety shower and eye wash should be available in the immediate work area.

SECTION 9 PHYSICAL and CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Colored or clear liquid

Odor: Aromatic hydrocarbon odor.

Odor threshold: Not available	pH: Not applicable
Melting point/Pourpoint: Not available	Boiling Point: 320-700° F (160-371.1°C)
Flash point: >125°F (51.6°C)	Evaporation rate: Not available
Flammability (solid, gas): Not applicable	
Flammable limits: LEL: 0.6%	UEL: 7.5%
Vapor pressure: <1 mmHg @ 60°F	Vapor density: ~3
Relative density: 0.82-0.88	Solubility: Insoluble in water
Partition coefficient: n-ctanol/water: Not available	Auto-ignition temperature: >490-545°F (>254.4-285°C)
Decomposition temperature: Not available	Viscosity: 1.3-4.1 mm ² /s

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: Keep away from heat and all sources of ignition.

Incompatible materials: Avoid oxidizing agents, reducing agents, acids, alkalies and halogens.

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

SECTION 11 TOXICOLOGICAL INFORMATION

Health Hazards:

Inhalation: Vapors may cause respiratory irritation and central nervous system effect including headache, dizziness, headaches, giddiness, euphoria, vertigo, blurred vision, nausea, numbness, drowsiness, anesthesia, and coma.

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

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

Ingestion: Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea, vertigo, drowsiness, mental confusion, staggering gait, slurred speech, convulsions, unconsciousness and death due to circulatory failure. Aspiration during swallowing or vomiting may cause lung damage.

Chronic Effects of Overexposure: Prolonged occupational overexposure may cause dermatitis. Reports have associated repeated and prolonged overexposure to petroleum distillates with adverse liver, kidney and bone marrow effects and with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the product may be harmful or fatal.

Mutagenicity: Diesel fuel was negative in the AMES test and in an in vitro mouse lymphoma assay.

Reproductive Toxicity: In a developmental study with diesel fuel, rats were administered 100 and 400 ppm for 6 hours a day from day 6-15 of gestation. No adverse effects were seen on reproduction or developmental paramental or in soft tissues or skeletons. NOEL: 400 ppm

Carcinogenicity: Naphthalene is listed by IARC as "Possibly Carcinogenic to Humans" Group 2B, and as "Reasonably Anticipated to be a Human Carcinogen" by NTP. None of the other ingredients of the product are classified as a carcinogen by IARC, NTP, or OSHA.

Acute Toxicity Values:

Acute Toxicity Estimate: Oral 14492 mg/kg, Inhalation 4.1 mg/L/4 hr

Diesel Fuel: Oral rat LD50 17900 mg/kg, Inhalation rat LC50 4.1 mg/L/4 hr, Dermal rabbit LD50 >4300 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

Naphthalene: Oral rat LD50 533 mg/kg, Inhalation rat LC0 0.4 mg/L (highest attainable concentration), Dermal rat LC50 >2500 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Diesel Fuel: 96 hr LL50 *Oncorhynchus mykiss* 65 mg/kg, 48 hr EL50 > 1000 mg/L, 72 hr EL50 *Pseudokirchnerella subcapitata* 10 mg/L

Naphthalene: 96 hr LC50 *Pimephales promelas* 6.08 mg/L, 48 hr EC50 *daphnia magna* 2.16 mg/L

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

Naphthalene: 96 hr LC50 Pimephales promelas 6.08 mg/L, 48 hr EC50 daphnia magna 2.16 mg/L

Persistence and degradability: Diesel fuel is inherently biodegradable.

Bioaccumulative potential: All the components will potentially bioaccumulate.

Mobility in soil: No data available.

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	NA1993	Diesel Fuel	3	PG III	No
TDG	UN1202	Diesel Fuel	3	PG III	No
IMDG	UN1202	Diesel Fuel	3	PG III	No
IATA	UN1202	Diesel Fuel	3	PG III	No

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

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 has a Reportable Quantity (RQ) of 3,333 lbs. (based on the RQ for Naphthalene of 100 lbs). Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

EPA SARA 311 Hazard Classification: Acute Health, Chronic Health, 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):

Naphthalene 91-20-3 0-3%

CALIFORNIA PROPOSITION 65: This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity.

Naphthalene 91-20-3 0-3% Cancer

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.

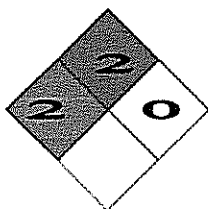
SECTION 16: OTHER INFORMATION

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

Date of current revision: April 24, 2015

Date of previous revision: New SDS

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



**Health: 2
Flammability : 2
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.