



Material Safety Data Sheet

MSDS ID NO.: 0282MAR019
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1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name: Marathon Biodiesel B100
Synonym: B100 Biodiesel; Virgin Biodiesel; Soy Biodiesel; Rapeseed Biodiesel; Tallow Biodiesel; Canola Biodiesel
Chemical Family: Fatty acid alkyl esters
Formula: Mixture

Manufacturer:
Marathon Petroleum Company LLC
539 South Main Street
Findlay OH 45840

Other information: 419-421-3070
Emergency telephone number: 877-627-5463

2. COMPOSITION/INFORMATION ON INGREDIENTS

Biodiesel is a complex mixture of C16-C18 methyl esters derived from the processing of soybean oil. This product is intended for use as a blending component in diesel fuel at a level of 0-5%.

Product information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Marathon Biodiesel B100	67784-80-9	100			

Component Information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Biodiesel (Canola derived)	129828-16-6	0-100			
Biodiesel (Tallow derived)	61788-61-2	0-100			
Biodiesel (Soybean derived)	67784-80-9	0-100			
Biodiesel (Fatty Acid, Methyl Ester)	68937-84-8	0-100			
Biodiesel (Rapeseed derived)	73891-99-3	0-100			

Notes: The manufacturer has voluntarily elected to reflect exposure limits contained in OSHA's 1989 air contaminants standard in its MSDS's, even though certain of those exposure limits were vacated in 1992.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

BIODIESEL IS AN NON VOLATILE, NON COMBUSTIBLE AMBER LIQUID. THIS MATERIAL IS NOT COMBUSTIBLE PER THE OSHA HAZARD COMMUNICATION STANDARD BUT COULD EMIT FUMES OF ELEMENTAL COMPONENTS IF HEATED TO ELEVATED TEMPERATURES. THIS PRODUCT HAS BEEN EVALUATED AND DOES NOT REQUIRE ANY HAZARD WARNING LABEL UNDER THE OSHA HAZARD COMMUNICATION STANDARD.

OSHA WARNING LABEL:

THIS PRODUCT HAS BEEN EVALUATED AND DOES NOT REQUIRE ANY HAZARD WARNING LABEL UNDER THE OSHA HAZARD COMMUNICATION STANDARD.

CONSUMER WARNING LABEL:

A CONSUMER WARNING LABEL IS NOT APPLICABLE FOR THIS PRODUCT.

- Inhalation:** No acute effects expected from routine operations. Overheating of product may produce vapors which can cause respiratory irritation, dizziness and nausea.
- Ingestion:** Not likely to be toxic by ingestion.
- Skin contact:** Prolonged and repeated liquid contact can cause defatting and drying of the skin and can lead to irritation and/or dermatitis.
- Eye contact:** Produces little or no irritation on direct contact with the eye.

Carcinogenic Evaluation:

Product information:

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Marathon Biodiesel B100 67784-80-9	NE			

- Notes:** The International Agency for Research on Cancer (IARC) has not evaluated this product.

Component Information:

4. FIRST AID MEASURES

- Inhalation:** If affected, move person to fresh air. If breathing is difficult, administer oxygen. If not breathing or if no heartbeat, give artificial respiration or cardiopulmonary resuscitation (CPR). Immediately call a physician. If symptoms or irritation occur with any exposure, call a physician.
- Skin contact:** Wash with soap and large amounts of water. Remove contaminated clothing. If symptoms or irritation occur, call a physician.
- Ingestion:** If swallowed, do not induce vomiting and do not give liquids. Immediately call a physician.
- Eye contact:** Flush eyes with large amounts of tepid water for at least 15 minutes. If symptoms or irritation occur, call a physician.
- Medical conditions aggravated by exposure:** No data available.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	For small fires, Class B fire extinguishing media such as CO ₂ , dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.
Specific hazards:	This product is not a combustible liquid per the OSHA Hazard Communication Standard, but will ignite and burn at temperatures exceeding the flash point. For additional fire related information, see NFPA 30 or the North American Emergency Response Guide 128.
Special protective equipment for firefighters:	Avoid using straight water streams. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Keep run-off water out of sewers and water sources.
Flash point:	> 300 F (PMCC)
Autoignition temperature:	No data available.
Flammable limits in air - lower (%):	No data available.
Flammable limits in air - upper (%):	No data available.

NFPA rating:

Health: 1
Flammability: 1
Instability: 1
Other: -

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate. Contain liquid with sand or soil. Recover and return free product to proper containers. Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids.
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7. HANDLING AND STORAGE

Handling:

Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements. Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area.

Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

Engineering measures:	Local or general exhaust required when using at elevated temperatures that generate vapors or mists.
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- Respiratory protection:** Breathing apparatus needed only when aerosol or mist is formed. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 1910.134. Self-contained breathing apparatus should be used for fire fighting.
- Skin and body protection:** Not required under normal operating conditions.
- Eye protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields.
- Hygiene measures:** No special protective clothing is normally required.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Amber Liquid
Physical state (Solid/Liquid/Gas):	Liquid
Substance type (Pure/Mixture):	Mixture
Color:	Amber
Odor:	Slight
Molecular weight:	Not determined.
pH:	Neutral
Boiling point/range (5-95%):	> 600 F
Melting point/range:	-1 C
Decomposition temperature:	Not applicable.
Specific gravity:	0.87 @ 25 C
Density:	7.35 lbs/gal
Bulk density:	No data available.
Vapor density:	No data available.
Vapor pressure:	<1 mm Hg @ 72 C
Evaporation rate:	No data available.
Solubility:	Negligible
Solubility in other solvents:	No data available.
Partition coefficient (n-octanol/water):	No data available.
VOC content(%):	No data available.
Viscosity:	No data available.

10. STABILITY AND REACTIVITY

Stability:	The material is stable at 70 F, 760 mm pressure.
Polymerization:	Will not occur.
Hazardous decomposition products:	Carbon monoxide and carbon dioxide
Materials to avoid:	Strong oxidizers such as nitrates, chlorates, peroxides.
Conditions to avoid:	Extreme heat.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Product information:

Name	CAS Number	Inhalation:	Dermal:	Oral:
Marathon Biodiesel B100	67784-80-9	No data available	No data available	> 17.4 gm/kg [Rat]

Although specific subchronic toxicity studies have not been conducted, soybean oil is considered to have a low order of oral and dermal toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects: This product does not concentrate or accumulate in the food chain. If released to soil and water, this product is expected to biodegrade under both aerobic and anaerobic conditions.

The 96 hour LC50 for biodiesel in bluegill fish is > 1000 mg/l.

13. DISPOSAL CONSIDERATIONS

Cleanup Considerations: This product as produced is not specifically listed as an EPA RCRA hazardous waste according to federal regulations (40 CFR 261). However, when discarded or disposed of, it may meet the criteria of an "characteristic" hazardous waste. This material could become a hazardous waste if mixed or contaminated with a hazardous waste or other substance(s). It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

14. TRANSPORT INFORMATION

49 CFR 172.101:

DOT:
Transport Information: This material when transported via US commerce is NOT REGULATED by DOT regulations.

Packing group: Not applicable.
DOT reportable quantity (lbs): Not applicable.

TDG (Canada):
Packing group: Not applicable.
Regulated substances: Not applicable.

15. REGULATORY INFORMATION

US Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b): This product and/or its components are listed on the TSCA Chemical Inventory.

OSHA Hazard Communication Standard: This product has been evaluated and determined not to be hazardous as defined in OSHA's Hazard Communication Standard.

EPA Superfund Amendment & Reauthorization Act (SARA):

SARA Section 302: This product contains the following component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Biodiesel (Canola derived)	NA
Biodiesel (Tallow derived)	NA
Biodiesel (Soybean derived)	NA

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Biodiesel (Fatty Acid, Methyl Ester)	NA
Biodiesel (Rapeseed derived)	NA

SARA Section 304: This product contains the following component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	CERCLA/SARA - Hazardous Substances and their Reportable Quantities
Biodiesel (Canola derived)	NA
Biodiesel (Tallow derived)	NA
Biodiesel (Soybean derived)	NA
Biodiesel (Fatty Acid, Methyl Ester)	NA
Biodiesel (Rapeseed derived)	NA

SARA Section 311/312 The following EPA hazard categories apply to this product:

None

SARA Section 313: This product contains the following component(s) that may be subject to reporting on the Toxic Release Inventory (TRI) From R:

Name	CERCLA/SARA 313 Emission reporting:
Biodiesel (Canola derived)	None
Biodiesel (Tallow derived)	None
Biodiesel (Soybean derived)	None
Biodiesel (Fatty Acid, Methyl Ester)	None
Biodiesel (Rapeseed derived)	None

State and Community Right-To-Know Regulations:

The following component(s) of this material are identified on the regulatory lists below:

- Biodiesel (Canola derived)
 - Louisiana Right-To-Know: Not Listed
 - California Proposition 65: Not Listed
 - New Jersey Right-To-Know: Not Listed.
 - Pennsylvania Right-To-Know: Not Listed.
 - Massachusetts Right-To Know: Not Listed.
 - Florida substance List: Not Listed.
 - Rhode Island Right-To-Know: Not Listed
 - Michigan critical materials register list: Not Listed.
 - Massachusetts Extraordinarily Hazardous Substances: Not Listed
 - California - Regulated Carcinogens: Not Listed
 - Pennsylvania RTK - Special Hazardous Substances: Not Listed
 - New Jersey - Special Hazardous Substances: Not Listed
 - New Jersey - Environmental Hazardous Substances List: Not Listed
 - Illinois - Toxic Air Contaminants: Not Listed
 - New York - Reporting of Releases Part 597 - List of Hazardous Substances: Not Listed
- Biodiesel (Tallow derived)
 - Louisiana Right-To-Know: Not Listed
 - California Proposition 65: Not Listed
 - New Jersey Right-To-Know: Not Listed.
 - Pennsylvania Right-To-Know: Not Listed.
 - Massachusetts Right-To Know: Not Listed.

Biodiesel (Canola derived)	
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
Biodiesel (Soybean derived)	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed
Biodiesel (Fatty Acid, Methyl Ester)	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

Biodiesel (Canola derived)	
Biodiesel (Rapeseed derived)	
Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

Canadian Regulatory Information:

Canada DSL/NDSL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

16. OTHER INFORMATION

Additional Information: No data available.

Prepared by: Mark S. Swanson, Manager, Toxicology and Product Safety

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End of Safety Data Sheet