



Safety Data Sheet

SDS ID NO.: 0282MAR019
Revision date: 04/01/2014

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name: Marathon Petroleum Biodiesel B100
Synonym: B100 Biodiesel; Virgin Biodiesel; Soy Biodiesel; Rapeseed Biodiesel; Tallow Biodiesel; Canola Biodiesel; Soybean Esters B100 Biodiesel, SME, Soy Methyl Ester, Biodiesel, Biomass Based Diesel, Fatty Acid Methyl Esters
Chemical Family: Fatty acid methyl esters
Formula: Mixture
Manufacturer Name: Marathon Petroleum Company LP
539 South Main Street
Findlay OH 45840

SDS 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 vegetable oils.

Product Information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Avg.	Other:
Marathon Biodiesel B100	CAS NO. BELOW	100			

Component Information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Avg.	Other:
Biodiesel (Tallow derived)	61788-61-2	0-100			
Biodiesel (Soybean derived)	67784-80-9	0-100			
Biodiesel (Rapeseed derived)	73891-99-3	0-100			
Biodiesel (Fatty Acid, Methyl Ester)	68937-84-8	0-100			
Biodiesel (Canola derived)	129828-16-6	0-100			
Methanol (Methyl Alcohol)	67-56-1	0-0.2	200 ppm TWA 250 ppm STEL Skin - potential significant contribution to overall exposure by the cutaneous route.	200 ppm TWA	

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

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

COMBUSTIBLE LIQUID

WARNING!

MAY BE HARMFUL OR FATAL IF SWALLOWED.

MAY CAUSE LUNG DAMAGE.

MAY CAUSE ALLERGIC SKIN REACTION.

VAPORS, FUMES, OR MISTS FROM HEATED MATERIAL MAY CAUSE RESPIRATORY TRACT IRRITATION.

POTENTIAL HEALTH EFFECTS FROM OVEREXPOSURE

Inhalation:

Excessive inhalation of mist may result in respiratory irritation. Overheating may produce vapors which may cause respiratory irritation, dizziness and nausea.

Ingestion:

Ingestion of large amounts may cause gastrointestinal disturbances.

Skin contact:

Prolonged and repeated liquid contact can cause defatting and drying of the skin and can lead to irritation and/or dermatitis. May cause sensitization upon repeated skin contact.

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 CAS NO. BELOW	Not Listed	Not Listed	Not Listed	Not Listed

Notes:

Component Information:

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Biodiesel (Tallow derived) 61788-61-2	Not Listed	Not Listed	Not Listed	Not Listed
Biodiesel (Soybean derived) 67784-80-9	Not Listed	Not Listed	Not Listed	Not Listed
Biodiesel (Rapeseed derived) 73891-99-3	Not Listed	Not Listed	Not Listed	Not Listed
Biodiesel (Fatty Acid, Methyl Ester) 68937-84-8	Not Listed	Not Listed	Not Listed	Not Listed
Biodiesel (Canola derived) 129828-16-6	Not Listed	Not Listed	Not Listed	Not Listed
Methanol (Methyl Alcohol) 67-56-1	Not Listed	Not Listed	Not Listed	Not Listed

4. FIRST AID MEASURES

Eye contact:	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Gently remove contacts while flushing. If symptoms occur, 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.
Inhalation:	If affected, move person to fresh air. If breathing is difficult, administer oxygen and continue to monitor. 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.
NOTES TO PHYSICIAN:	Do not induce vomiting. Low viscosity product can be sucked into the lungs and cause damage after swallowing or vomiting. Contains small amounts of methanol (0.2%). The metabolism of fatty acid methyl ester may release free methanol in the body that could induce metabolic acidosis with delayed effect. If a large amount of product is ingested, i.e. several ounces, consider the use of ethanol or fomepizole (Antizol) and hemodialysis. Consult standard literature or contact a poison control center for treatment details.
Medical Conditions Aggravated By Exposure:	Preexisting skin conditions and respiratory disorders may be aggravated by exposure to components of this product.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:

For small fires, Class B fire extinguishing media such as CO₂, dry chemical, foam or water spray can be used. For large fires, water spray, fog or foam can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

Specific hazards:

Spontaneous combustion may occur under high temperature, closed conditions if material is absorbed in various fiber matrices and oxygen is present (e.g. oily rags). Store wiping rags in metal cans with tightly fitting lids. Cool closed containers exposed to fire with water spray. Hazardous combustion products include carbon monoxide, carbon dioxide, aldehydes, ketones, and other oxidized hydrocarbons.

This product has been determined to be a combustible liquid per the OSHA Hazard Communication Standard and should be handled accordingly. Can ignite under moderate heating. Vapors are heavier than air and may accumulate in low lying areas. Vapors may accumulate in confined spaces. For additional fire related information, see NFPA 30 or the North American Emergency Response Guide 128.

Special protective equipment and precautions 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 away from flames, hot surfaces, and other ignition sources. No smoking. 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.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Flash point:

≥ 199°F (closed cup)

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: 2

Instability: 1

Other: -

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Isolate and evacuate area. Shut off source if safe to do so. Keep all sources of ignition away from released material. Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer.

All contaminated surfaces will be slippery. Use impervious gloves when handling contaminated material. Keep untrained personnel away from contamination.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system or any surface water.

Methods and materials for containment and cleaning up: Absorb small spills with absorbent material. Recover large spills into approved containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling:

Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements. Use appropriate grounding and bonding practices. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Do not cut, drill, grind or weld on empty containers since they may contain explosive residues.

Avoid repeated and prolonged skin contact. Never siphon this product by mouth. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water.

Storage:

Avoid contamination by storing in water-free tanks with scheduled water drainage. Corrosion and microbial growth are promoted by the presence of water. Degradation can be avoided by preventing temperature extremes and air during storage. Contact with copper/alloys, lead, tin and zinc may result in increased sediment and deposits that can plug filters.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

Engineering measures: Ensure adequate ventilation, especially in confined areas. Local or general exhaust required when using at elevated temperatures that generate vapors or mists.

Respiratory protection: Breathing apparatus needed 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: Use chemical resistant gloves such as neoprene, nitrile, or PVA to prevent prolonged or repeated skin contact.

Eye protection: Where splashing is possible, wear safety glasses with side shields. Wear goggles and faceshield when handling hot material.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Clear Liquid
Physical state (Solid/Liquid/Gas):	Liquid
Substance type (Pure/Mixture):	Mixture
Color:	Amber
Odor:	Slight
Molecular weight:	No data available.
pH:	Neutral
Boiling point/range (5-95%):	>140° C
Melting point/range:	No data available.
Decomposition temperature:	No data available.
Specific gravity:	0.86-0.89 @25°C
Density:	7.35 lbs/gal.
Bulk density:	No data available.
Vapor density:	No data available.
Vapor pressure:	<1.0 mm Hg @22°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:	3.8-5.0 cSt @40°C

10. STABILITY AND REACTIVITY

Stability:	The material is stable at 70° F, 760 mm pressure.
Polymerization:	Will not occur.
Hazardous decomposition products:	Hazardous combustion products include carbon monoxide, carbon dioxide, aldehydes, ketones, and other oxidized hydrocarbons
Materials to avoid:	Strong oxidizers such as nitrates, chlorates, peroxides. Incompatible with strong acids and bases
Conditions to avoid:	Excessive heat, sources of ignition and open flames. Water contamination during storage.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Product Information:

Name	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Marathon Biodiesel B100	CAS NO. BELOW			

Component Information:

Name	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Biodiesel (Tallow derived)	61788-61-2			
Biodiesel (Soybean derived)	67784-80-9	>5000 mg/kg (Rat)	>5000 mg/kg (Rat)	
Biodiesel (Rapeseed derived)	73891-99-3			
Biodiesel (Fatty Acid, Methyl Ester)	68937-84-8	>2000mg/kg (Rat)		
Biodiesel (Canola derived)	129828-16-6			
Methanol (Methyl Alcohol)	67-56-1	5628mg/kg (Rat)	15800mg/kg (Rabbit)	64000ppm (Rat) 4-hr. 83.2mg/L (Rat) 4-hr.

Toxicology Information:

Biodiesel (Soybean derived):

Primary skin irritation test (Rabbits) 24 hour exposure with Primary Dermal irritation index of 1.6/8.0 (Nonirritating).

Primary eye irritation test (Rabbits) single exposure with scores of 0.7, 0 and 0 after 24, 48, and 72 hours (Nonirritating).

Dermal sensitization study (Guinea Pigs) repeat insult patch procedure with induction and challenge patches indicated a positive sensitization response.

12. ECOTOXICOLOGICAL INFORMATION

Mobility

Mobility in soil

Insoluble and floats on water.

Ecotoxicity

Aquatic Toxicity:

The 96-hour LC50 for biodiesel alone in bluegill fish is > 1000 mg/L. The 96-hour LC50 for biodiesel alone in rainbow trout fingerlings ranges from 390-707 mg/L. The 96-hour LC50 for biodiesel alone in rainbow trout fry is 455 mg/L. The 24-hour LC50 for biodiesel alone in Daphnia magna (water flea) juveniles is 4.65 mg/L.

Bioaccumulation:

This product is not expected to concentrate or accumulate in the food chain.

Persistence/Biodegradation:

Bioaccumulative Potential

If released to soil and water, this product is expected to be readily biodegradable under aerobic conditions.

13. DISPOSAL CONSIDERATIONS

Description of waste residues, safe handling, and methods of disposal: This product as produced is not specifically listed as an EPA RCRA hazardous waste according to federal regulations (40 CFR 260-271). However, if mixed or contaminated with a hazardous waste or other substance(s), the resulting material may meet the criteria of a hazardous waste when discarded. The user is responsible for determining if the material for disposal is hazardous according to federal, state, and local regulations.

Long-term storage may result in decomposition of the oil and could result in a rancid odor.

Contaminated packaging disposal: Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal.

14. TRANSPORT INFORMATION

49 CFR 172.101:

DOT:

Transport Information:

This material when transported via US commerce is NOT REGULATED by DOT regulations when transported at or above 93°C or is not a hazardous substance, a hazardous waste or a marine pollutant.

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 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 (Tallow derived)	NA
Biodiesel (Soybean derived)	NA
Biodiesel (Rapeseed derived)	NA
Biodiesel (Fatty Acid, Methyl Ester)	NA
Biodiesel (Canola derived)	NA
Methanol (Methyl Alcohol)	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 (Tallow derived)	NA
Biodiesel (Soybean derived)	NA
Biodiesel (Rapeseed derived)	NA
Biodiesel (Fatty Acid, Methyl Ester)	NA
Biodiesel (Canola derived)	NA
Methanol (Methyl Alcohol)	NA

SARA

The following EPA hazard categories apply to this product:

None

SARA Section 313:

This product contains the following components, which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

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

State and Community Right-To-Know Regulations:

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

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.
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 (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.
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)	
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.
Methanol (Methyl Alcohol)	
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.

NOTE: Not Applicable.

16. OTHER INFORMATION

Additional Information: No data available.

Prepared by: Toxicology and Product Safety

The information and recommendations contained herein are based upon tests believed to be reliable. However, Marathon Petroleum Company LP (MPC) does not guarantee their accuracy or completeness nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of the goods, the merchantability of the goods, or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage may be required. MPC assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

End of Safety Data Sheet