



# MATERIAL SAFETY DATA SHEET

## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHS Inc.  
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Transportation Emergency (CHEMTREC): 1-800-424-9300  
Technical Information: 1-651-355-8443  
MSDS Information: 1-651-355-8438

PRODUCT NAME: Biodiesel B-100

MSDS: 0184-PURM.- Rev. C (04-14-08)

COMMON NAME: Biodiesel Fuel

CHEMICAL FORMULA: Mixture

CHEMICAL NAME: Methyl Soyate

CHEMICAL FAMILY: Methyl esters from liquid sources

## Section 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENTS	PERCENTAGES (by weight)	PEL (OSHA)	TLV (ACGIH)	CAS #
Methyl Soyate	100	N/D	5 mg/m <sup>3</sup> TWA (Oil Mist)	67784-80-9

(TWA) - Time Weighted Average is the employee's average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded.  
(STEL) - Short Term Exposure Limit is the employee's 15-minute time weighted average exposure which shall not be exceeded at any time during a work day unless another time limit is specified.

## Section 3 - HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

This product contains no hazardous materials

### POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: (Eye Contact, Dermal, Inhalation, Ingestion.)

### ACUTE EFFECTS OF OVER EXPOSURE:

**Eyes** - Contact with eyes may cause irritation.

**Skin** - Prolonged or repeated contact is not likely to cause significant skin irritation. Thermal burns are possible when encountered at elevated temperatures.

**Inhalation** - Negligible unless heated to produce vapors. May cause respiratory tract irritation. High levels may cause headache, dizziness, and nausea. Remove to fresh air.

**Ingestion** - No hazards anticipated from ingestion incidental to industrial exposure.

CARCINOGENICITY: NTP: No

IARC: No

OSHA: No

## Section 4 - FIRST AID MEASURES

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### EMERGENCY AND FIRST AID PROCEDURES:

**Eye Contact** - If material comes in contact with the eyes, immediately wash the eyes with large amounts of water for fifteen minutes, occasionally lifting the lower and upper lids. Get medical attention.

**Skin Contact** - If the material comes in contact with the skin, wash the contaminated skin with soap and water promptly. If the material penetrates through clothing, remove the clothing and wash the skin with soap and water promptly. If irritation persists after washing, get medical attention immediately.

**Inhalation** - If person breathes in large amounts of material, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the person warm and at rest. Get medical attention as soon as possible.

**Ingestion** - If material has been swallowed, do not induce vomiting. Get medical attention immediately.

## Section 5 - FIRE - FIGHTING MEASURES

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**FLASH POINT:** 266°F Minimum / 130°C (PM ASTM-D93)

**AUTO IGNITION TEMP:** ND

**FLAMMABLE LIMITS IN AIR**  
% BY VOLUME

**LOWER**  
ND

**UPPER**  
ND

**EXTINGUISHING MEDIA:** Use water spray to cool fire exposed surfaces and to protect personnel. Use foam, dry chemical or water spray (fog) to extinguish fire.

**SPECIAL FIRE FIGHTING PROCEDURES:** Water may be ineffective on flames, but should be used to keep fire-exposed containers cool. Water or foam sprayed into container or hot burning product could cause frothing and endanger fire fighters. Large fires, such as tank fires, should be fought with caution. If possible, pump the contents from the tank and keep adjoining structures cool with water. Avoid spreading burning liquid with water used for cooling purposes. Do not flush down public sewers. Avoid inhalation of vapors. Fire fighters should wear self-contained breathing apparatus.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Vapors are heavier than air and may travel along the ground to a source of ignition (pilot light, heater, electric motor) some distance away. Containers, drums (even empty) can explode when heat (welding, cutting, etc.) is applied.

**HAZARD RATINGS:**    **NFPA 704:**    Health-   1      Fire-   1      Reactivity-   0    
   **HMIS:**            Health-   1      Fire-   1      Reactivity-   0  

## Section 6 - ACCIDENTAL RELEASE MEASURES

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**STEPS TO TAKE IF MATERIAL IS RELEASED OR SPILLED:** Remove all sources of ignition. Notify emergency response personnel as appropriate. If facility or operations has an "Oil or Hazardous Substance Contingency Plan", "Spill Prevention Control & Countermeasures (SPCC) Plan" or equivalent, activate its procedures. Prohibit persons not wearing protective equipment from entering the area. Stop leak at source, contain spill to prevent spreading. Small spills can be removed with inert absorbent. Dike area of large spill to prevent runoff to sewers, streams, etc. Ventilate area.

## Section 7 - HANDLING AND STORAGE

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**HANDLING AND STORING:** Transport, handle and store in accordance with OSHA Regulations 29 CFR 1910.106. Store in closed containers between 50°F and 120°F. Caution: Misuse of empty containers can be hazardous. Empty containers can be hazardous since emptied containers retain product residue (vapor, liquid, and/or solid). Cutting or welding empty containers might cause fire, explosion or toxic fumes from residues.

## Section 8 - EXPOSURE CONTROL - PERSONAL PROTECTION

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**ENGINEERING CONTROLS:** Ventilation requirements: Provide adequate local or dilution ventilation to keep vapors below permissible concentrations.

**RESPIRATORY EQUIPMENT:** Personnel should never enter areas of high concentrations without proper respiratory protection. If exposure limits for product or components are exceeded, NIOSH-approved respiratory protection equipment should be worn. Proper selection of respirators should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors.

**EYE PROTECTION:** Chemical goggles or face shield where contact with liquid or mist may occur.

**PROTECTIVE CLOTHING:** Impervious clothing and gloves when contact with skin may occur.

**OTHER (SAFETY SHOWERS, EYE WASH STATIONS, ETC.):** Water should be available for flushing and washing when exposure exists. Launder soiled clothes. Discard shoes or other leather articles saturated with the material.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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**APPEARANCE:** Light yellow liquid

**ODOR:** Mild odor

**BOILING POINT:** 392°F (200°C)

**SPECIFIC GRAVITY (water=1):** 0.88

**VAPOR PRESSURE:** >2 mm Hg

**VAPOR DENSITY (air=1):** >1

**SOLUBLE IN WATER:** Insoluble

**EVAPORATION RATE (ether=1):** >1

## Section 10 - STABILITY AND REACTIVITY

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**pH:** N/D

**STABILITY:**

**STABLE**   X   (At room temperature and pressure. See handling and storage section)

**UNSTABLE**     

**INCOMPATIBILITY -**

**CONDITIONS TO AVOID:** Heat, flame, static electricity and other ignition sources.

**MATERIALS TO AVOID:** Strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition products may include carbon monoxide, carbon dioxide, and other petroleum decomposition products (hydrocarbons).

**HAZARDOUS POLYMERIZATION:** Has not been reported to occur under normal temperatures and pressures.

## Section 11 - TOXICOLOGY INFORMATION

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**Note:** CHS has not conducted specific toxicity tests on this product.

## Section 12 - ECOLOGICAL INFORMATION

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**Note:** CHS has not conducted specific ecological tests on this product.

### Section 13 - DISPOSAL CONSIDERATION

**WASTE DISPOSAL PROCEDURES:** Place contaminated materials in a disposable container and dispose of in accordance with Local, State and Federal environmental regulations. Recycle as much of the recovered product as possible. Do not flush to drain or storm sewer or otherwise release to the environment.

### Section 14 - TRANSPORTATION

DOT PROPER SHIPPING NAME: NA

DOT HAZARD CLASS: NA

DOT IDENTIFICATION NUMBER: NA

DOT EMER. RESPONSE GUIDE NO.: NA

NMFC (National Motor Freight Classification):

Proper Shipping Name-**Fatty acid ester**; Identification #-**144920**; Shipping Classification: **65**

### Section 15 - REGULATORY INFORMATION

This product does not contain toxic chemicals subject to the reporting requirements of SARA Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CAS Number  
None

Chemical Name

Percent by Weight

SARA SECTION 311-312 HAZARD CATEGORIES (40 CFR 370.2): **Not hazardous**

FIRE: Yes    SUDDEN RELEASE OF PRESSURE: No    REACTIVE: No    ACUTE: No    CHRONIC: No

**California Prop 65:** This product contains no chemicals known to the state of CA to cause cancer

### Section 16 - OTHER INFORMATION

Date : April 14, 2008

Supersedes: Rev. B, December 23, 2003

Reason for Issue: Changed product name to Biodiesel B-100

THE INFORMATION CONTAINED IN THIS MSDS RELATES ONLY TO THE SPECIFIC MATERIAL IDENTIFIED. IT DOES NOT COVER USE OF THAT MATERIAL IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PARTICULAR PROCESS. IN COMPLIANCE WITH 29 C.F.R. 1910.1200(g), CHS HAS PREPARED THIS MSDS IN SEGMENTS, WITH THE INTENT THAT THOSE SEGMENTS BE READ TOGETHER AS A WHOLE WITHOUT TEXTUAL OMISSIONS OR ALTERATIONS. CHS BELIEVES THE INFORMATION CONTAINED HEREIN TO BE ACCURATE, BUT MAKES NO REPRESENTATION, GUARANTEE, OR WARRANTY, EXPRESS OR IMPLIED, ABOUT THE ACCURACY, RELIABILITY, OR COMPLETENESS OF THE INFORMATION OR ABOUT THE FITNESS OF CONTENTS HEREIN FOR EITHER GENERAL OR PARTICULAR PURPOSES. PERSONS REVIEWING THIS MSDS SHOULD MAKE THEIR OWN DETERMINATION AS TO THE MATERIAL'S SUITABILITY AND COMPLETENESS FOR USE IN THEIR PARTICULAR APPLICATIONS.



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