

Dave Kubeczko - DNR

From: Foster, Michael
Sent: Wednesday, September 09, 2015 9:51 AM
To: Dave Kubeczko
Cc: Demboski, Dena; Fink, Kent; Johnson, Derek
Subject: Bio-Diesel
Attachments: REG B100 MSDS (rev 5).pdf

Good afternoon, Mr. Kubeczko—

Per our conversation, I have spoken with my team and they will be using a water-based mud for the production hole that contains a defoaming agent (1-2% concentration) called B-100 (Bio-Diesel). I have attached the MSDS sheet for your convenience. What steps, if any, do we need to take to clear up the *FORM 2 Re-Files* that are currently under review by the COGCC?

Best Regards,






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NFPA	HMIS	PPE	Transport Symbol						
	<table><tr><td>Health Hazard</td><td>0</td></tr><tr><td>Fire Hazard</td><td>1</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>	Health Hazard	0	Fire Hazard	1	Reactivity	0	 	
Health Hazard	0								
Fire Hazard	1								
Reactivity	0								

Issuing Date 28-Aug-2007

Revision Date 20-Oct-2011

Revision Number 5

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	C14-C18 and C16-C18-unsaturated methyl esters
Product Code(s)	CAS# 67762-26-9
Synonyms	Biodiesel, B100, methyl soyate, soy methyl esters (SME), rapeseed methyl esters (RME), canola methyl esters (CME), corn oil methyl esters, methyl tallowate, fatty acid methyl esters, fatty acid alkyl esters.
Recommended Use	Fuel, solvent, cleaning agent
Supplier Address	Renewable Energy Group, Inc. 416 S. Bell Ave. Ames, IA 50010 TEL: 1-888-734-8686
Company Emergency Phone Number	1-800-633-8253
Emergency Telephone Number	CHEMTREC: +1-703-527-3887 (INTERNATIONAL) 1-800-424-9300 (NORTH AMERICA)

2. HAZARDS IDENTIFICATION

CAUTION!

Emergency Overview

May cause skin and eye irritation

Appearance Pale yellow to brown if undyed **Physical State** Liquid **Odor** Mild

Potential Health Effects

Principle Routes of Exposure Skin contact, Eye contact.

Acute Toxicity	
Eyes	May cause irritation.
Skin	May cause irritation.
Inhalation	Not an expected route of exposure. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Ingestion may cause stomach discomfort.
Chronic Effects	No known effect.
Aggravated Medical Conditions	Skin disorders.
Environmental Hazard	See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name	Methyl esters
Chemical Family	Fatty acid alkyl esters
Formula	R-COO-CH ₃

Chemical Name	CAS-No	Weight %
C14-C18 and C16-C18-unsaturated methyl esters	67762-26-9	100

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Skin Contact	Wash off immediately with soap and plenty of water.
Inhalation	Move to fresh air.
Ingestion	Clean mouth with water and afterwards drink plenty of water.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Combustible material: may burn but does not ignite readily.
Flash Point	>100°C / 212°F
Flash Point Test Method	PMCC
Suitable Extinguishing Media	Water spray, dry chemical, carbon dioxide (CO ₂), or foam.
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.
Hazardous Combustion Products	Carbon monoxide, Carbon dioxide (CO ₂), Nitrogen oxides (NO _x), Hydrocarbons.
<u>Explosion Data</u>	
Sensitivity to mechanical impact	None
Sensitivity to static discharge	None
Specific Hazards Arising from the Chemical	Keep product and empty container away from heat and sources of ignition.

**Protective Equipment and
Precautions for Firefighters**

Wear self-contained breathing apparatus and protective suit.

<u>NFPA</u>	Health Hazard 1	Flammability 1	Stability 0	Physical and Chemical Hazards -
<u>HMIS</u>	Health Hazard 1	Flammability 1	Stability 0	Personal Precautions B

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment.
Methods for Containment	Dike to collect large liquid spills. Cover with dry sand/earth.
Methods for Cleaning Up	Soak up with inert absorbent material. Take up mechanically and collect in suitable container for disposal. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.
Other Information	Refer to protective measures listed in Sections 7 and 8.

7. HANDLING AND STORAGE

Handling	Wear personal protective equipment. Avoid contact with skin and eyes.
Storage	Keep tightly closed in a dry and cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Engineering Measures	Showers, eyewash stations, and ventilation systems.
<u>Personal Protective Equipment</u>	
Eye/Face Protection	Safety glasses with side-shields.
Skin and Body Protection	Protective gloves.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Pale yellow to brown if undyed	Odor	Mild
Odor Threshold	No information available	Physical State	Liquid
pH	Not applicable		
Flash Point	> 100°C / 212°F	Method	PMCC
Autoignition Temperature	No information available	Decomposition Temperature	No information available
Boiling Point/Range	> 280°C / 536°F (at 1 atm)	Melting Point/Range	-1°C to 15°C / 30°F to 59°F
Flammability Limits in Air	No information available	Explosion Limits	No information available
Specific Gravity	0.87-0.89 @ 25°C	Water Solubility	Negligible
Solubility	No information available	Evaporation Rate	No information available
Vapor Pressure	No data available	Vapor Density	No data available
VOC Content	Not applicable	Viscosity	3.8-5.0 cst @ 40°C
Partition Coefficient (n-octanol/water)	No data available		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Incompatible Products	Strong oxidizing agents. Strong reducing agents. Strong acids. Strong bases.
Conditions to Avoid	Heat, flames and sparks.
Hazardous Decomposition Products	Carbon monoxide (CO). Carbon dioxide (CO ₂). Nitrogen oxides (NO _x). Hydrocarbons.
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

<u>Acute Toxicity</u>	
LD50 Oral VALUE (mg/kg)	17.4 g/kg (rat) estimated
Irritation	May cause skin and eye irritation
<u>Chronic Toxicity</u>	
	No known effect
Target Organ Effects	Skin

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Persistence and Degradability Product is biodegradable.

Bioaccumulation/ Accumulation All components of this material will potentially bioaccumulate.

Mobility The product is insoluble and floats on water.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not Comply
PICCS	Does not Comply

U.S. Federal Regulations

SARA 313: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories:

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act: This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA: This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65: This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations: This product does not contain any substances regulated by state right-to-know regulations.

International Regulations

Mexico	Minimum risk, Grade 0
Canada	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR. WHMIS Hazard Class: Non-controlled

16. OTHER INFORMATION

Issuing Date: 28-Aug-2007

Revision Date: 31-May-2011

Revision Note: No information available

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS