Safety Data Sheet

Greenergy

1.0 IDENTIFICATION OF THE SUBSTANCE / MIXTURE

1.1 Product Identification

Substance	**Fuels, diesel**
Commercial Product Name	**High Bio Diesel**
Synonyms	**High Bio ULSD, B20**
Specific Use(s)	**Fuel for use in diesel engine vehicles designed to run on automotive diesel**
CAS	**68334-30-5**

1.2 Details of the supplier of the SDS

Company	**Greenergy Fuels Canada** **107 Germain Street, Suite 300** **Saint John** **New Brunswick** **E2L 2E9** **CANADA**
Telephone No.	**506 632 1650**
Email	msds-info@greenergy.com

1.3 Emergency telephone number

Emergency telephone number (CANUTEC)	**613-996-6666** From Cellular phone only ***666**
Availability	**24hrs**

Version no.	1.0
Last Updated	Dec 2020

2.0 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to GHS

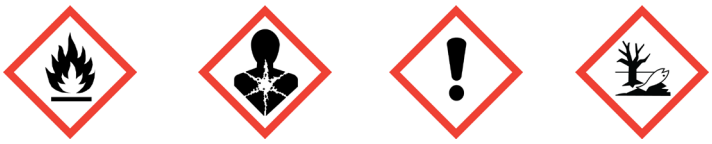
Flam. Liq. 3	H226
Skin Irrit. 2	H315
Acute Tox. 4 (Inhalation)	H332
Carc. 2	H351
Asp.Tox. 1	H304
STOT RE 2	H373
Aquatic Chronic 2	H411

For the full text of classification codes and/or H-phrases in this section, see section 2.2 below

2.2 Label elements

Labelling according to GHS

CLP pictograms:



GHS02 GHS08 GHS07 GHS09

Signal word: Danger

CLP Hazard statements:
H226 - Flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H332 - Harmful if inhaled.
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure
H411 - Toxic to aquatic life with long lasting effects.

CLP Precautionary statements:
P260 - Do not breath dust/fumes/gas/mist/vapours/spray.
P280 - Wear protective gloves.
P273 - Avoid release to the environment
P301+P310 - If swallowed, immediately call a doctor.
P331 - Do NOT induce vomiting
P403 + P235 – Store in a well ventilated place. Keep cool.
P501 - Dispose of contents/container to hazardous or special waste collection point.

Other Hazards

Not relevant

3.0 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Substance name	Product Identifier	%	Classification according to GHS
Fuels, diesel	CAS no: 68334-30-5	80 - 90	H226 - Flam. Liq. 3 H315 - Skin Irrit. 2 H332 - Acute Tox. 4 (Inhalation) H351 - Carc. 2 H373 - STOT RE 2 H411 - Aquatic Chronic 2 H304 - Asp.Tox. 1

The exact concentrations of the above listed chemicals are being withheld as a trade secret
For the full text of classification codes and/or H-phrases in this section, see section 2.2

4.0 FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Keep at rest.
Move to fresh air.
Consult a physician if necessary.

Skin contact: After contact with skin, wash immediately with plenty of soap and water.
If skin irritation persists, call a physician.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.

Ingestion: Do NOT induce vomiting.
Rinse mouth.
Drink plenty of water.
Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: May cause irritation of respiratory tract. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Skin contact: Repeated exposure may cause skin dryness or cracking.

Eye contact: Contact with eyes may cause irritation.

Ingestion: Harmful: may cause lung damage if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

4.3 Indication of immediate medical attention and special treatment needed

No data available

5.0 FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:	Use dry chemical, CO2, water spray or alcohol resistant foam.
Extinguishing media which shall not be used for safety reasons:	High volume water jet

5.2 Special hazards arising from the substance or mixture

Fire Hazard:	Combustible material
Specific hazards:	Vapours may form explosive mixture with air. Vapours are heavier than air and may spread along floors. Flash back possible over considerable distance. The pressure in sealed containers can increase under the influence of heat. Cool containers / tanks with water spray. Burning produces noxious and toxic fumes. Possible decomposition products are: COx, H2S, SOx Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

5.3 Advice for firefighters

Special protective equipment for fire-fighters:	Wear personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary

6.0 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:	Wear personal protective equipment. See also section 8. Evacuate personnel to safe areas. Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Do not smoke.

6.2 Environmental precautions

Environmental precautions:	Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up:	Remove all sources of ignition. Do not use tools which may produce sparks. Prevent further leakage or spillage if safe to do so. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dam up. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Dispose of in accordance with local regulations.

7.0 HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling:	Wear personal protective equipment. See also section 8 Always replace cap after use. Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Use only in well-ventilated areas. Keep away from food, drink and animal feeding stuffs.

7.2 Conditions for safe storage, including any incompatibilities

Storage:	Do not store near or with any of the incompatible materials listed in section 10. Store in original container. Keep tightly closed in a dry, cool and well- ventilated place. Keep away from open flames, hot surfaces and sources of ignition.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice. Wash hands and face before breaks and immediately after handling the product. Do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs. Use only in area provided with appropriate exhaust ventilation.

8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component:	**Fuels, diesel (68334-30-5)**
TLV-TWA (mg/m³):	100 (CA AB OEL)
TLV-TWA (mg/m³):	100 (CA AB OEL) (vapour and inhalable aerosols)
TLV-TWA (mg/m³):	100 (ACGIH) (inhalable fraction and vapour)

8.2 Exposure controls

Respiratory protection:	In case of insufficient ventilation wear suitable respiratory equipment, selected in accordance with CAN/CSA – Z94.4
Hand protection:	Wear chemically resistant gloves tested for breakthrough time for diesel / gas oil. The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves.
Eye protection:	Safety glasses (CAN/CSA – Z94,3)

9.0 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	liquid
Colour:	pale yellow
Odour:	characteristic
pH:	not applicable
Boiling point/boiling range:	ca. 170 - 370 °C
Melting point/range:	no data available
Flash point:	ca. > 55 °C
Explosive properties:	no data available
Oxidizing properties:	no data available
Evaporation rate:	no data available
Vapour pressure:	~ < 1 kPa @ 20°C
Vapour density:	no data available
Solubility in other solvents:	slightly soluble (<20 mg/l, 20°C)
Viscosity:	2.0 – 4.5 mm/s² @ 40°C
Density:	820 - 845 kg/m³ @ 15°C
Partition coefficient:	~ > 3 (n-octanol/water)

9.2 Other information

No data available

10.0 STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity: Flammable liquid

See also section 10.5

10.2 Chemical stability

Stability: Stable under normal conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Conditions to avoid: Heat, flames and sparks.

10.5 Incompatible materials

Incompatible materials: Incompatible with strong acids and oxidizing agents. Bases

10.6 Hazardous decomposition products

Hazardous decomposition products: Burning produces noxious and toxic fumes. Possible decomposition products are: COx, H2S, SOx

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

General Information

Acute toxicity

Component:	**Fuels, diesel (68334-30-5)**
LD50/oral/rat:	> 5000 mg/kg
Inhalation:	May cause irritation of respiratory tract. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Skin contact:	Repeated exposure may cause skin dryness or cracking. Eye contact : Contact with eyes may cause irritation.
Ingestion:	Harmful: may cause lung damage if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Chronic toxicity

Chronic toxicity: Limited evidence of a carcinogenic effect.

Further information

No data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Ecotoxicity effects:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Component:	Fuels, diesel (68334-30-5)
LC50/96h/fish:	54 mg/l (Jordanella floridae)

12.2 Persistence and degradability

Persistence and degradability: No information available.

12.3 Bioaccumulative potential

Bioaccumulation:	May cause bioaccumulation.
Partition coefficient:	~ > 3 (n-octanol/water)

12.4 Mobility in soil

Mobility: slightly soluble

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

13.0 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from residues / unused products:	In accordance with local and national regulations. Do not burn, or use a cutting torch on, the empty drum. Do not puncture or incinerate

14. TRANSPORT INFORMATION

Transportation information is based on diesel component 80 - 90% (v/v). FAME component is classed as non-hazardous.

14.1 UN Number

UN number : 1202

14.2 UN proper shipping name

Proper shipping name : GAS OIL / DIESEL FUEL / HEATING OIL, LIGHT

14.3 Transport hazard class(es)

14.3.1 Overland transport

Class:	3 - Flammable liquids
Danger labels:	3 - Flammable liquid
ERG code:	128

14.3.2 Transport by sea

Class:	3 - Flammable liquids
Danger labels:	3 - Flammable liquid
EmS:	F-E, S-E

14.3.3 Air transport

Class:	3 - Flammable liquids
Danger labels:	3 - Flammable liquid
Packing Instruction (cargo aircraft):	366

Based on the flashpoint this product is not regulated in small containers (450 L or less) when shipped on a road vehicle, a railway vehicle or a vessel on a domestic voyage as the flashpoint is above 37.8 C

14.4 Packing group

Packing group: III

14.5 Environmental hazards

Marine pollutant: P

Other information (transport) : No supplementary information available.

14.6 Special precautions for users

No data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

15.0 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR.

15.2 Chemical Safety Assessment

Chemical Safety assessment: A Chemical Safety Assessment has been carried out for this substance.

16.0 OTHER INFORMATION

Revision:	1.0
Date:	Dec 2020
Updated sections:	New version, all sections reviewed for Canada