



Diesel Fuel Blend

SDS Preparation Date (mm/dd/yyyy): 05/07/2019

Page 4 of 12

SAFETY DATA SHEET

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Wear appropriate protective equipment. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Prevent product from entering drains, sewers, waterways and soil. Avoid release to the environment.

Methods and material for containment and cleaning up

- : Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Use only non-sparking tools. For spilled liquids: absorb spill with inert, non-combustible material such as sand, then place into suitable containers. Do not use combustible absorbents, such as sawdust. Pick up and transfer to properly labeled containers. Contaminated absorbent material may pose the same hazards as the spilled product. Contact the proper local authorities. Refer to Section 13 for disposal of contaminated material.

Special spill response procedures

- : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802). US CERCLA Reportable quantity (RQ): See section 15.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Use only outdoors or in a well-ventilated area. Wear suitable protective equipment during handling. Wear protective gloves/clothing and eye/face protection. Avoid breathing fumes or vapors. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Ground/Bond container and receiving equipment. Use explosion-proof electrical and ventilating equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep away from incompatibles. Wash thoroughly after handling. Keep container tightly closed when not in use. Keep out of reach of children. Empty containers retain residue (liquid and/or vapour) and can be dangerous.

Conditions for safe storage : Store in cool/well-ventilated place. Store locked up. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking. Have appropriate fire extinguishers and spill clean-up equipment in or near storage area. Keep away from incompatibles.

Incompatible materials : Strong oxidizing agents



Diesel Fuel Blend

SDS Preparation Date (mm/dd/yyyy): 05/07/2019

Page 5 of 12

SAFETY DATA SHEET

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Exposure Limits:</u>				
<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Diesel fuel, as total hydrocarbons	100 mg/m ³ (inhalable fraction and vapor, as total hydrocarbons, listed under Diesel fuel)	N/Av	N/Av	N/Av
Phosphoric acid, mixed decyl and ethyl and octyl esters	N/Av	N/Av	N/Av	N/Av
Ferric sulfate	N/Av	N/Av	N/Av	N/Av

Exposure controls

Ventilation and engineering measures

: Use only outdoors or in a well-ventilated area. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory protection

: If airbourne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Refer to CSA Z94.3 or other appropriate standards. Advice should be sought from respiratory protection specialists.

Skin protection

: Wear protective gloves/clothing. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Wear resistant clothing and boots. Depending on conditions of use, an impervious apron should be worn.

Eye / face protection

: Wear eye/face protection. Wear as appropriate: Tightly fitting safety goggles; Safety glasses with side shields. A full face shield may also be necessary.

Other protective equipment

: Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

General hygiene considerations

: Avoid breathing fumes or vapors. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Yellow solid.
Odour : Characteristic odor. □□
Odour threshold : Not available.
pH : □□□□ Not available.
Melting Point/Freezing point : Not applicable.

Initial boiling point and boiling range

: Not applicable.

Flash point

: 60°C

Flashpoint (Method)

: Not available.

Evaporation rate (BuAe = 1)

: Not available.

Flammability (solid, gas)

: Not applicable.

Lower flammable limit (% by vol.)

: Not D Y D L O D E O H



Diesel Fuel Blend

SDS Preparation Date (mm/dd/yyyy): 05/07/2019

Page 6 of 12

SAFETY DATA SHEET

Upper flammable limit (% by vol.)

: Not available.

Oxidizing properties

: Not available.

Explosive properties

: Not explosive

Vapour pressure

: Not available.

Vapour density

: Not available.

Relative density / Specific gravity

: Not applicable.

Solubility in water

: Insoluble.

Other solubility(ies)

: Not available.

Partition coefficient: n-octanol/water or Coefficient of water/oil distribution

: Not available.

Auto-ignition temperature

: Not available.

Decomposition temperature

: Not available.

Viscosity

: Not applicable.

Volatiles (% by weight)

: Not available.

Volatile organic Compounds (VOC's)

: Not available.

Absolute pressure of container

: Not available.

Flame projection length

: Not available.

Other physical/chemical comments

: No additional information.

SECTION 10. STABILITY AND REACTIVITY

Reactivity

: Not normally reactive.

Chemical stability

: Stable under normal conditions.

Possibility of hazardous reactions

: Hazardous polymerization does not occur.

Conditions to avoid

: Keep away from heat, sparks and open flames. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.

Incompatible materials

: Strong oxidizing agents

Hazardous decomposition products

: Not available.

Refer also to hazardous combustion products, Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES

Routes of entry skin & eye : YES

Routes of entry Ingestion : YES

Routes of exposure skin absorption

: NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation



Diesel Fuel Blend

SDS Preparation Date (mm/dd/yyyy): 05/07/2019

Page 7 of 12

SAFETY DATA SHEET

- Sign and symptoms ingestion* : May cause respiratory irritation. Symptoms may include coughing, choking and wheezing.
- Sign and symptoms skin* : May be fatal if swallowed and enters airways. Aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.
- Sign and symptoms eyes* : Causes skin irritation. Symptoms may include redness, itching and swelling.
- Potential Chronic Health Effects** : Causes serious eye damage. Symptoms may include severe pain, tearing, redness, swelling and blurred vision.
- Mutagenicity** : Prolonged or repeated skin exposure may cause redness, a burning sensation, drying and cracking of the skin (dermatitis).
- Carcinogenicity** : Not expected to be mutagenic in humans.
- Reproductive effects & Teratogenicity** : This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
- Sensitization to material** : Not expected to cause reproductive effects.
- Specific target organ effects** : Not expected to be a skin or respiratory sensitizer.
- : This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Specific target organ toxicity, single exposure - Category 3 (respiratory) May cause respiratory irritation.
- : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
- Medical conditions aggravated by overexposure** : Pre-existing eye, skin, respiratory, liver, kidney and central nervous system disorders.
- Synergistic materials** : None known or reported by the manufacturer.
- Toxicological data** : See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	LC₅₀(4hr)	LD₅₀	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Diesel fuel, as total hydrocarbons	4.6 mg/L 4 h	12 g/kg	N/Av
Phosphoric acid, mixed decyl and ethyl and octyl esters	N/Av	N/Av	N/Av
Ferric sulfate	N/Av	500 mg/kg	N/Av

- Other important toxicological hazards** : None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity** : The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. The product contains the following substances which are hazardous for the environment: Fuels, diesel, no. 2
- See the following tables for individual ingredient ecotoxicity data.



Diesel Fuel Blend

SDS Preparation Date (mm/dd/yyyy): 05/07/2019

Page 8 of 12

SAFETY DATA SHEET

Ecotoxicity data:

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Diesel fuel, as total hydrocarbons	68476-30-2	96 Hr LC50 Pimephales promelas: 35 mg/L [flow-through]	N/Av	N/Av
Phosphoric acid, mixed decyl and ethyl and octyl esters	68412-60-2	N/Av	N/Av	N/Av
Ferric sulfate	10028-22-5	96 Hr LC50 Gambusia affinis: 37.2 mg/L [static]	N/Av	N/Av

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Diesel fuel, as total hydrocarbons	68476-30-2	N/Av	N/Av	N/Av
Phosphoric acid, mixed decyl and ethyl and octyl esters	68412-60-2	N/Av	N/Av	N/Av
Ferric sulfate	10028-22-5	N/Av	N/Av	N/Av

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Diesel fuel, as total hydrocarbons	68476-30-2	N/Av	N/Av	N/Av
Phosphoric acid, mixed decyl and ethyl and octyl esters	68412-60-2	N/Av	N/Av	N/Av
Ferric sulfate	10028-22-5	N/Av	N/Av	N/Av

Persistence and degradability

- : The product itself has not been tested.
- Contains the following chemicals which are considered to be inherently biodegradable: Fuels, diesel, no. 2

Bioaccumulation potential

- : The product itself has not been tested. See the following data for ingredient information.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
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Mobility in soil

- : The product itself has not been tested.

Other Adverse Environmental effects

- : No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Diesel Fuel Blend

SDS Preparation Date (mm/dd/yyyy): 05/07/2019





Page 9 of 12

SAFETY DATA SHEET

SECTION 13. DISPOSAL CONSIDERATIONS

- Handling for Disposal** : Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8. This material and its container must be disposed of in a safe way. Empty containers retain residue and can be dangerous. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
- Methods of Disposal** : Dispose of in accordance with federal, provincial and local hazardous waste laws.
- RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	UN1325	FLAMMABLE SOLID, ORGANIC, N.O.S. (Diesel fuel)	4.1	II	
TDG Additional information	May be shipped as Limited Quantity when transported in containers no larger than 1.0 kg; total per package may not exceed 30 kg gross mass.				
ICAO/IATA	UN1325	FLAMMABLE SOLID, ORGANIC, N.O.S. (Diesel fuel)	4.1	II	
ICAO/IATA Additional information	Refer to ICAO/IATA Packing Instruction				
49CFR/DOT	UN1325	Flammable solids, organic, n.o.s. (Diesel fuel)	4.1	II	
49CFR/DOT Additional information	May be shipped as Limited Quantity when transported in containers no larger than 1.0 kg; total per package may not exceed 30 kg gross mass.				
IMDG	UN1325	FLAMMABLE SOLID, ORGANIC, N.O.S. (Diesel fuel)	4.1	II	
IMDG Additional information	Consult the IMDG regulations for exceptions.				

- Special precautions for user** : Appropriate advice on safety must accompany the package. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking.
- Environmental hazards** : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See Section 12 for more environmental information.
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not applicable.



Diesel Fuel Blend

SDS Preparation Date (mm/dd/yyyy): 05/07/2019

SAFETY DATA SHEET

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity (RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Diesel fuel, as total hydrocarbons	68476-30-2	Yes	N/Ap	N/Av	No	N/Ap
Phosphoric acid, mixed decyl and ethyl and octyl esters	68412-60-2	Yes	N/Ap	N/Av	No	N/Ap
Ferric sulfate	10028-22-5	Yes	1000 lb/ 454 kg	N/Av	No	N/Ap

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Physical hazards (Flammable) Health hazards (Skin irritation, Eye Damage , Specific target organ toxicity, single exposure ; Aspiration hazard). Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Diesel fuel, as total hydrocarbons	68476-30-2	No	N/Ap	No	No	No	No	No	No
Phosphoric acid, mixed decyl and ethyl and octyl esters	68412-60-2	No	N/Ap	No	No	No	No	No	No
Ferric sulfate	10028-22-5	No	N/Ap	Yes	Yes	No	Yes	Yes	No

Canadian Information:

Canadian Environmental Protection Act (CEPA): All ingredients are present on the DSL. Refer to Section 2 for a WHMIS Classification for this product.

International Information:

Components listed below are present on the following International Inventory list:



Diesel Fuel Blend

SDS Preparation Date (mm/dd/yyyy): 05/07/2019

Page 11 of 12

SAFETY DATA SHEET

Ingredients	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Diesel fuel, as total hydrocarbons	68476-30-2	270-671-4	Present	Present	(9)-1700	KE-17285	Present	May be used as a component in a product covered by a group standard, but is not approved for use as a chemical in its own right.
Phosphoric acid, mixed decyl and ethyl and octyl esters	68412-60-2	270-198-3	Present	N/Av	N/Av	N/Av	N/Av	May be used as a component in a product covered by a group standard, but is not approved for use as a chemical in its own right.
Ferric sulfate	10028-22-5	233-072-9	Present	Present	(1)-359	KE-10900	Present	HSR006912

SECTION 16. OTHER INFORMATION

Legend

: ACGIH: American Conference of Governmental Industrial Hygienists
AICS: Australian Inventory of Chemical Substances
CAS: Chemical Abstract Services
CSA: Canadian Standards Association
EC50: Effective Concentration 50%
EINECS: European Inventory of Existing Commercial chemical Substances
ENCS: Existing and New Chemical Substances
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
IBC: Intermediate Bulk Container
IECSC: Inventory of Existing Chemical Substances
IMDG: International Maritime Dangerous Goods
IOC: Inventory of Chemicals
KECI: Korean Existing Chemicals Inventory
KECL: Korean Existing Chemicals List
LC: Lethal Concentration
LD: Lethal Dose
N/Av: Not Available
N/Ap: Not Applicable
NIOSH: National Institute of Occupational Safety and Health
NOEC: No observable effect concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
RTECS: Registry of Toxic Effects of Chemical Substances
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act

Diesel Fuel Blend

SDS Preparation Date (mm/dd/yyyy): 05/07/2019

Page 12 of 12

SAFETY DATA SHEET

- References**
- TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System
- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2018.
 - 2. International Agency for Research on Cancer Monographs, searched 2018.
 - 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2018 (Chempendium, HSDB and RTECs).
 - 4. Material Safety Data Sheets from manufacturer.
 - 5. US EPA Title III List of Lists - March 2015 version.
 - 6. California Proposition 65 List - November 23, 2018 version.
 - 7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2018.

Preparation Date (mm/dd/yyyy)

: 05/07/2019

Other special considerations for handling

: Provide adequate information, instruction and training for operators.

<p><u>Prepared for:</u> CEDA Industrial Services LP 2130 121 Avenue NE Edmonton, AB T6S 1B1 780-472-6766</p>	
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