



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product identifier Diesel/Bio-diesel/Distillate
Version # 01
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Supersedes date -
CAS # Mixture
Product code 2181
Product use Fuel.
Synonym(s) Premium Diesel, EP 3000, Railroad Diesel, Seasonal Diesel, Mine Diesel, Summer Diesel, Winter Diesel, Dyed (Purple) Diesel, Export Diesel, Electric Generating Diesel, #2 Fuel Oil, No.#1 Diesel, Type A Diesel, Type #1 Fuel Oil, Type B Diesel

Manufacturer information

Manufacturer Consumers' Co-operative Refineries Limited
Address P.O. Box 260; 9th Avenue North
Regina, SK S4P 3A1 Canada
Telephone (306) 721-5353 -or- (306) 719-4353
Supplier Federated Co-operatives Limited
Address P.O. Box 1050, 401 - 22nd Street East
Saskatoon SK S7K 3M9 Canada
Telephone (306) 244-3447
24 Hour Emergency Telephone (613) 996-6666 - Canutec
Supplier Federated Co-operatives Ltd.
P.O. Box 1050
401 - 22nd Street East
Saskatoon S7K 3M9 CA
Telephone Number: (306) 244-3447
Emergency telephone (613) 996-6666

2. Hazards Identification

Emergency overview WARNING!
Combustible liquid and vapor. Harmful if inhaled. Prolonged or repeated skin contact may cause drying, cracking, or irritation. Suspected of causing cancer. May cause damage to organs (blood, liver, thymus) through prolonged or repeated exposure. Aspiration hazard: Harmful if swallowed - may enter lungs if swallowed or vomited. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Potential health effects

Routes of exposure Inhalation. Skin contact. Ingestion.
Eyes Direct contact with eyes may cause temporary irritation.
Skin Prolonged or repeated contact may dry skin and cause irritation.
Inhalation Harmful if inhaled. Vapors may cause headache, fatigue, dizziness and nausea.
Ingestion Ingestion may result in vomiting; aspiration (breathing) of vomitus into lungs must be avoided as even small quantities may result in aspiration pneumonitis.

Potential environmental effects Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Fuels, diesel	68334-30-5	95 - 100
Canola Oil - Fatty Acid Methyl Ester	129828-16-6	0 - 5

Components	CAS #	Percent
Rapeseed Oil - Fatty Acid Methyl Ester	73891-99-3	0 - 5
Soy Methyl Esters from Vegetable Oil	67784-80-9	0 - 5

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Inhalation Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately!

Skin contact Remove contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Eye contact Flush thoroughly with water. If irritation occurs, get medical assistance.

Ingestion Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. DO NOT induce vomiting because of danger of aspirating liquid into lungs. Call a physician or poison control center. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth to an unconscious person.

Notes to physician Treat symptomatically. The effects might be delayed.

General advice If you feel unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Flammable properties Combustible liquid and vapor. Material will float and may ignite on surface of water. Containers may explode when heated. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back.

Extinguishing media

Suitable extinguishing media Carbon dioxide (CO₂). Foam. Dry chemical. Water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Protection of firefighters

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Protective equipment for firefighters Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Use standard firefighting procedures and consider the hazards of other involved materials.

Specific methods Move container from fire area if it can be done without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Explosion data

Sensitivity to static discharge Not sensitive.

Sensitivity to mechanical impact Not sensitive.

Hazardous combustion products Carbon oxides.

General fire hazards Combustible liquid and vapor.

6. Accidental Release Measures

Personal precautions Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. In case of spills, beware of slippery floors and surfaces. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors and contact with skin and eyes. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the MSDS.

Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Do not contaminate water.
Methods for containment	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Extinguish all flames in the vicinity. Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Should not be released into the environment. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the MSDS.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame or sources of ignition. Protect material from direct sunlight. Keep away from heat, spark, open flames and other sources of ignition. When using do not smoke. Explosion-proof general and local exhaust ventilation should be used. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Use only with adequate ventilation. Avoid contact with skin and clothing. Avoid inhalation of vapors. Do not taste or swallow. Wash thoroughly after handling. Observe good industrial hygiene practices.
Storage	Keep away from heat, spark, open flames and other sources of ignition. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Keep container tightly closed and in a well-ventilated place. Store in closed original container at room temperature. Keep in an area equipped with sprinklers. Store away from incompatible materials (See Section 10).

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Fuels, diesel (CAS 68334-30-5)	TWA	100 mg/m ³	Inhalable fraction and vapor.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Fuels, diesel (CAS 68334-30-5)	TWA	100 mg/m ³

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Fuels, diesel (CAS 68334-30-5)	TWA	100 mg/m ³	Vapor and aerosol.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Fuels, diesel (CAS 68334-30-5)	TWA	100 mg/m ³	Inhalable fraction and vapor.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Fuels, diesel (CAS 68334-30-5)	TWA	100 mg/m ³	Inhalable fraction and vapor.

Exposure guidelines

Canada - British Columbia OELs: Skin designation

Fuels, diesel (CAS 68334-30-5) Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

Fuels, diesel (CAS 68334-30-5) Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

Fuels, diesel (CAS 68334-30-5) Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

Fuels, diesel (CAS 68334-30-5) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Fuels, diesel (CAS 68334-30-5) Can be absorbed through the skin.

Engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Eye / face protection

Use approved safety goggles or face shield.

Skin protection

Wear appropriate chemical resistant clothing to prevent any possibility of skin contact.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.

9. Physical & Chemical Properties

Appearance

Physical state Liquid.

Form Liquid.

Color Straw.

Odor Hydrocarbon-like.

Odor threshold Not available.

pH Not available.

Vapor pressure < 2 psia

Vapor density Not available.

Boiling point 300.2 - 752 °F (149 - 400 °C)

Melting point/Freezing point Not applicable.

Solubility (water) Insoluble in water.

Specific gravity 0.84 - 0.89 @ 15.6 °C

Flash point > 104.0 °F (> 40.0 °C) Pensky-Martens Closed Cup

Flammability limits in air, upper, % by volume 7.6 %

Flammability limits in air, lower, % by volume 0.6 %

Auto-ignition temperature Not available.

Evaporation rate Not available.

Viscosity 1 - 10 cSt @ 40 °C

Partition coefficient (n-octanol/water) Not available.

10. Chemical Stability & Reactivity Information

Reactivity The product is non-reactive under normal conditions of use, storage and transport.

Chemical stability Stable under normal storage and handling conditions.

Conditions to avoid	Heat, sparks, flames, elevated temperatures. Contact with incompatible materials. Do not pressurize, cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death.
Incompatible materials	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

11. Toxicological Information

Acute effects	Swallowing or vomiting of the liquid may result in aspiration into the lungs. Harmful if inhaled. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. Causes skin irritation.
Sensitization	Not a skin or respiratory sensitizer.
Chronic effects	Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Prolonged inhalation may be harmful. May cause damage to organs (blood, liver, thymus) through prolonged or repeated exposure.
Carcinogenicity	Suspected of causing cancer.
ACGIH Carcinogens	
Fuels, diesel (CAS 68334-30-5)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Direct contact with eyes may cause temporary irritation.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive effects	This product is not expected to cause reproductive or developmental effects.
Teratogenicity	This product is not expected to cause teratogenic effects.
Symptoms and target organs	Harmful if inhaled. Causes skin irritation. May cause redness and pain. Prolonged contact may cause dryness of the skin. Direct contact with eyes may cause temporary irritation. May cause damage to organs (blood, liver, thymus) through prolonged or repeated exposure. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Synergistic materials	None known.

12. Ecological Information

Ecotoxicological data	No ecotoxicity data noted for the ingredient(s).
Ecotoxicity	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Oil spills are generally hazardous to the environment.
Environmental effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.
Aquatic toxicity	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Persistence and degradability	The degradability of the product has not been stated.
Bioaccumulation / accumulation	No data available on bioaccumulation.
Mobility in environmental media	The product is insoluble in water. It will spread on the water surface while some of the components will eventually sediment in water systems. The volatile components of the product will spread in the atmosphere.

13. Disposal Considerations

Disposal instructions	Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.
Waste from residues / unused products	Dispose of waste and residues in accordance with local authority requirements.
Contaminated packaging	Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

TDG

UN number	UN1202
UN proper shipping name	Diesel Fuel
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.

IATA

UN number	UN1202
UN proper shipping name	Diesel Fuel
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	Yes
ERG Code	3L
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.

IMDG

UN number	UN1202
UN proper shipping name	Diesel Fuel
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS	F-E, S-E
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.

15. Regulatory Information

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status Controlled

WHMIS classification B3 - Combustible Liquids
D2A - Other Toxic Effects-VERY TOXIC
D2B - Other Toxic Effects-TOXIC

WHMIS labeling



International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

Further information	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.
NFPA ratings	Health: 2 Flammability: 2 Instability: 0
Disclaimer	To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.
Prepared by	Not available.