



MARINE DIESEL

MSDS Revision Date (dd/mm/yyyy): 11/07/2016

MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product name: MARINE DIESEL

Synonyms: Marine Gas Oil.

Product Use: Diesel fuels are distillate fuels suitable for use in high and medium speed internal combustion engines of the compression ignition type. Mining diesels, marine diesels, MDO and naval distillates may have a higher flash point requirement.

Supplier's / distributor name and address: Kildair Service ULC
92, Chemin Delangis
St-Paul of Joliette, QC, Canada
J0K 3E0

Manufacturer's name and address: Refer to Supplier

Tel. numbers in case of emergency (24 h.): Kildair Service ULC : 450 756-8091
CANUTEC : 613 996-6666

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview:

Appearance	Bright oily liquid.
Colour	Clear to yellow (this product may be dyed red for taxation purposes).
Odour	Mild petroleum oil like.
Hazard Summary	Combustible liquid. May cause cancer. Irritating to eyes and skin.

Potential Health Effects

Primary Routes of Entry:

Eye contact.
Ingestion.
Inhalation.
Skin contact.
Skin absorption.

Target Organs:

Skin.
Eyes.
Respiratory tract.

Inhalation:

May cause respiratory tract irritation.
Inhalation may cause central nervous system effects.
Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Skin:

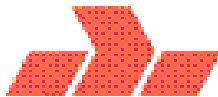
Causes skin irritation.

Eyes:

Causes eye irritation.

Ingestion:

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
Aspiration hazard if swallowed - can enter lungs and cause damage.



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Aggravated Medical Condition: None known.

Carcinogenicity :
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture.

Chemical Name	CAS No.	Concentration (%)
Kerosine (petroleum), hydrodesulfurized	64742-81-0	70 - 100 %
Kerosine (petroleum)	8008-20-6	
Fuels, diesel	68334-30-5	
Fuel oil no. 2	68476-30-2	
Alkanes, C10-20-branched and linear	928771-01-1	0 - 25%
Soybean oil, Methyl ester	67784-80-9	0 - 5%
Rape oil, Methyl ester	73891-99-3	
Fatty acids, tallow, Methyl esters	61788-61-2	

SECTION 4 - FIRST AID MEASURES

If inhaled: Move to fresh air.
Artificial respiration and/or oxygen may be necessary.
Seek medical advice.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Wash skin thoroughly with soap and water or use recognized skin cleanser.
Wash clotting before reuse.
Seek medical advice.

In case of eye contact: Remove contact lenses.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.

If swallowed: Rinse mouth with water.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Never give anything by mouth to an unconscious person.
Seek medical advice.

Most important symptoms and effects, both acute and delayed: First aider needs to protect himself.

SECTION 5 - FIRE FIGHTING MEASURES

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



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Unsuitable extinguishing media:	Do NOT use water jet.
Specific hazards during firefighting:	Cool closed containers exposed to fire with water spray.
Hazardous combustion products:	Carbon oxides (CO, CO ₂), nitrogen oxides (NO _x), sulphur oxides (SO _x), sulphur compounds (H ₂ S), smoke and irritating vapours as products of incomplete combustion.
Further information:	Prevent fire extinguishing water from contaminating surface water or the ground water system.
Special protective equipment for firefighters:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions.
Environmental precautions:	If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up:	Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Soak up with inert absorbent material. Non-sparking tools should be used. Ensure adequate ventilation. Contact the proper local authorities.

SECTION 7 - HANDLING AND STORAGE

Advice on safe handling:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Avoid contact with skin, eyes and clothing. Do not ingest. Keep away from heat and sources of ignition. Keep container closed when not in use.
Conditions for safe storage:	Store in original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. To maintain product quality, do not store in heat or direct sunlight.



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SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Kerosine (petroleum), hydrodesulfurized	64742-81-0	TWA	200 mg/m ³ (As total hydrocarbon vapour)	ACGIH
Kerosine (petroleum)	8008-20-6	TWA	200 mg/m ³ (As total hydrocarbon vapour)	CA BC OEL

Engineering measures: Use only in well-ventilated areas.
Ensure that eyewash station and safety shower are proximal to the work-station location.

Personal protective equipment

Respiratory protection: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Filter type: Organic vapour cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

Hand protection material: Neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R). Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any material regardless of their imperviousness, will get permeated by chemicals.
Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.

Remarks: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection: Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Protective measures: Wash contaminated clothing before re-use.

Hygiene measures: Remove and wash contaminated clothing and gloves, including the inside, before re-use.
Wash face, hands and any exposed skin thoroughly after handling.

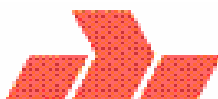
SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Bright oily liquid.

Colour: Clear to yellow (this product may be dyed red for taxation purposes).

Odour: Mild petroleum oil like.

Odour threshold: No data available.



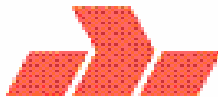
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pH:	No data available.
Pour point:	≤ at -6 °C
Boiling point/boiling range:	150 - 371 °C (302 - 700 °F)
Flash point:	≥ 60 °C (140 °F) Method : closed cup
Auto-ignition temperature:	225 °C (437 °F)
Evaporation rate:	No data available.
Flammability:	Flammable in presence of open flames, sparks and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. This product can accumulate static charge and ignite.
Upper explosion limit:	6 % (V).
Lower explosion limit:	0.7 % (V).
Vapour pressure:	7.5 mmHg (20 °C / 68 °F)
Relative vapour density:	4.5.
Relative density:	0.8 - 0.890
Solubility(ies)	
Water solubility:	Insoluble.
Partition coefficient n-octanol/water:	No data available.
Viscosity	
Viscosity, kinematic:	2 - 6 (40 °C / 104 °F)
Explosive properties:	Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Runoff to sewer may create fire or explosion hazard.

SECTION 10 - STABILITY AND REACTIVITY

Possibility of hazardous reactions:	Hazardous polymerisation does not occur. Stable under normal conditions.
Conditions to avoid:	Extremes of temperature and direct sunlight.
Incompatible materials:	Reactive with oxidising agents and acids.
Hazardous decomposition products:	May release COx, NOx, SOx, H2S, smoke and irritating vapours when heated to decomposition.



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SECTION 11 - TOXICOLOGICAL INFORMATION

**Information on likely routes
of exposure:**

Eye contact.
Ingestion.
Inhalation.
Skin contact.
Skin absorption.

Acute toxicity

Product:

Acute oral toxicity: No data available.
Acute inhalation toxicity: No data available.
Acute dermal toxicity: No data available.

Components:

**Kerosine (petroleum),
hydrodesulfurized:**

Acute oral toxicity.
LD50 rat: > 5,000 mg/kg.

Acute inhalation toxicity.
LC50 rat: > 5.2 mg/l.
Exposure time: 4 hrs.
Test atmosphere: dust/mist

Acute dermal toxicity
LD50 rabbit: > 2,000 mg/kg.

Kerosine (petroleum):

Acute oral toxicity.
LD50 rat: > 5,000 mg/kg.

Acute inhalation toxicity.
LC50 rat: > 5 mg/l.
Exposure time: 4 h.
Test atmosphere: dust/mist.

Acute dermal toxicity.
LD50 rabbit: > 2,000 mg/kg.

Fuels, diesel :

Acute oral toxicity.
LD50 rat: 7,500 mg/kg.

Acute dermal toxicity.
LD50 mouse: 24,500 mg/kg.

Fuel oil no. 2:

Acute oral toxicity.
LD50 rat: 12,000 mg/kg.

Acute inhalation toxicity.
LC50 rat: 4.1 mg/l.
Exposure time: 4 h.
Test atmosphere: dust/mist.



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Skin corrosion/irritation

Product: No data available.

Serious eye damage/eye irritation

Product: No data available.

Respiratory or skin sensitisation: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

STOT - single exposure: No data available.

STOT - repeated exposure: No data available.

Aspiration toxicity: No data available.

SECTION 12 - ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

Toxicity to fish: No data available.

Toxicity to daphnia and other aquatic invertebrates: No data available.

Toxicity to algae: No data available.

Toxicity to bacteria: No data available.

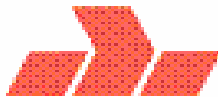
Persistence and degradability**Product:**

Biodegradability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Other adverse effects: No data available.



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SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues: The product should not be allowed to enter drains, water courses or the soil.
Offer surplus and non-recyclable solutions to a licensed disposal company.
Waste must be classified and labelled prior to recycling or disposal.
Send to a licensed waste management company.
Dispose of as hazardous waste in compliance with local and national regulations.
Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

Contaminated packaging: Do not re-use empty containers.

SECTION 14 - TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN/ID No.: 1202
Proper shipping name: Diesel fuel
Class: 3
Packing group: III
Labels: 3
Packing instruction
(cargo aircraft): 366

IMDG-Code

UN number: 1202
Proper shipping name: Diesel fuel
Class: 3
Packing group: III
Labels: 3
EmS Code: F-E, S-E
Marine pollutant: No

**Transport in bulk according to
Annex II of Marpol 73/78 and
the IBC Code:**

Not applicable for product as supplied.

TDG

UN number: 1202
Proper shipping name: Diesel fuel
Class: 3
Packing group: III
Labels: 3
ERG Code: 128
Marine pollutant: No

Special precautions for user: Not applicable.



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SECTION 15 - REGULATORY INFORMATION

WHMIS Classification:

B3: Combustible Liquid.

D2A: Very Toxic Material Causing Other Toxic Effects.

D2B: Toxic Material Causing Other Toxic Effects.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

The components of this product are reported in the following inventories:

DSL:

On the inventory, or in compliance with the inventory.

All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

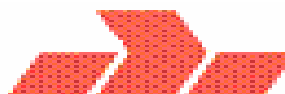
EINECS:

On the inventory, or in compliance with the inventory.

SECTION 16 - OTHER INFORMATION

Prepared by:

Kildair Service ULC
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St-Paul of Joliette, QC, Canada, J0K 3E0
Telephone: 450 756-8091
Please direct all enquiries to Kildair Service ULC



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