SECTION 1. IDENTIFICATION

Product name : DIESEL FUEL

Synonyms : Seasonal Diesel, #1 Diesel, #2 Heating Oil, D50, Arctic Diesel, Farm Diesel, Marine Diesel, Low Sulphur Diesel, LSD, Ultra Low Sulphur Diesel, ULSD, Mining Diesel, Naval Distillate, Dyed Diesel, Marked Diesel, Coloured Diesel, Furnace special, Biodiesel blend, B1, B2, B5, Diesel Low Cloud (LC), Marine Gas Oil, Marine Gas Oil Dyed.

Product code : 102762, 102763, 102755, 102302, 102744, 101801, 100678, 100677, 101802, 100107, 100668, 100658, 100911, 100663, 100652, 100460, 100065, 101796, 101793, 101795, 101792, 101794, 101791, 100768, 100643, 100642, 100103, 101798, 101800, 101797, 101788, 101789, 101787, 102531, 100734, 100733, 100997, 100668, 100658, 100994

Manufacturer or supplier’s details
Petro-Canada
P.O. Box 2844, 150 - 6th Avenue South-West
Calgary Alberta T2P 3E3
Canada

Emergency telephone number
Suncor Energy: +1 403-296-3000;
Canutec Transportation: 1-888-226-8832 (toll-free) or 613-996-6666;
Poison Control Centre: Consult local telephone directory for emergency number(s).

Recommended use of the chemical and restrictions on use
Recommended 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.

Prepared by : Product Safety: +1 905-804-4752

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Bright oily liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Clear to yellow (This product may be dyed red for taxation purposes)</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild petroleum oil like.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GHS Classification</th>
<th>Category 3</th>
</tr>
</thead>
</table>

Petro-Canada is a Suncor Energy business.
Acute toxicity (Inhalation) : Category 4
Skin irritation : Category 2
Carcinogenicity : Category 2
Specific target organ toxicity - single exposure : Category 3 (Central nervous system)
Specific target organ toxicity - repeated exposure : Category 2 (Liver, thymus, Bone)
Aspiration hazard : Category 1

GHS label elements
Hazard pictograms : 

Signal word : Danger

Hazard statements : Flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Harmful if inhaled.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May cause damage to organs (Liver, thymus, Bone) through prolonged or repeated exposure.

Precautionary statements : Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:
IF SWALLOWED: Immediately call a POISON CENTER/doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
IF exposed or concerned: Get medical advice/attention.
Do NOT induce vomiting.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

**Disposal:**
Dispose of contents/container to an approved waste disposal plant.

### 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.

**Aggravated Medical Condition**
- None known.

**Other hazards**
- None known.

**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**
- Confirmed animal carcinogen with unknown relevance to humans

Fuel Oil No. 1 8008-20-6
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

<table>
<thead>
<tr>
<th>Chemical components</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>fuels, diesel</td>
<td>68334-30-5</td>
<td>70 - 100 %</td>
</tr>
<tr>
<td>fuel oil no. 2</td>
<td>68476-30-2</td>
<td></td>
</tr>
<tr>
<td>kerosine (petroleum)</td>
<td>8008-20-6</td>
<td></td>
</tr>
<tr>
<td>kerosine (petroleum), hydrodesulfurized</td>
<td>64742-81-0</td>
<td></td>
</tr>
<tr>
<td>Alkanes, C10-20-branched and linear</td>
<td>928771-01-1</td>
<td>0 - 25 %</td>
</tr>
<tr>
<td>Soybean oil, Methyl ester</td>
<td>67784-80-9</td>
<td>0 - 5 %</td>
</tr>
<tr>
<td>Rape oil, Methyl ester</td>
<td>73891-99-3</td>
<td></td>
</tr>
<tr>
<td>Fatty acids, tallow, Methyl esters</td>
<td>61788-61-2</td>
<td></td>
</tr>
</tbody>
</table>

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 clothing 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 : None known.

Protection of first-aiders : First Aid responders should pay attention to self-protection  
and use the recommended protective clothing  
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
## SECTION 5. FIREFIGHTING MEASURES

| **Suitable extinguishing media** | Dry chemical  
| Carbon dioxide (CO2)  
| Water fog  
| Foam |
| **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, CO2), nitrogen oxides (NOx), sulphur oxides (SOx), sulphur compounds (H2S), 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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>kerosine (petroleum)</td>
<td>8008-20-6</td>
<td>TWA</td>
<td>200 mg/m³ (total hydrocarbon vapor)</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>200 mg/m³ (total hydrocarbon vapor)</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>200 mg/m³ (total hydrocarbon vapor)</td>
<td>ACGIH</td>
</tr>
<tr>
<td>kerosine (petroleum), hydrodesulfurized</td>
<td>64742-81-0</td>
<td>TWA</td>
<td>200 mg/m³ (As total hydrocarbon vapour)</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>200 mg/m³ (As total hydrocarbon vapour)</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

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. Responder 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

pH: No data available

Pour point: No data available

Boiling point/boiling range: 150 - 371 °C (302 - 700 °F)

Flash point: > 40 °C (104 °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. Va-
pours 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 ºC / 68 ºF)
Relative vapour density : 4.5
Relative density : 0.8 - 0.88

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.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Ingestion
Inhalation
Skin contact
Skin Absorption

Acute toxicity
# SAFETY DATA SHEET

## DIESEL FUEL

**Version**: 3.1  
**Revision Date**: 2017/04/20  
**Print Date**: 2017/04/20

**Components:**

### 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
- **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,

### 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,
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

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:
Toxicity to fish : Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available
Toxicity to algae : Remarks: No data available
Toxicity to bacteria : Remarks: No data available

Persistence and degradability

Product:
Biodegradability : Remarks: No data available

Bioaccumulative potential
No data available
Mobility in soil
No data available
Other adverse effects
No data available

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 dis-
posal 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 Regulations

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

IMDG-Code
UN number : UN 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

National Regulations

TDG
UN number : UN 1202
Proper shipping name : DIESEL FUEL
Class : 3
Packing group : III
Labels : 3
ERG Code : 128
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION
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
- **TSCA**: 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

For Copy of SDS: Internet: www.petro-canada.ca/msds  
Canada-wide: telephone: 1-800-668-0220; fax: 1-800-837-1228  
For Product Safety Information: 1 905-804-4752

Prepared by: Product Safety: +1 905-804-4752

Revision Date: 2017/04/20

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.