



<b>WHMIS (Pictograms)</b>	<b>WHMIS (Classification)</b>	<b>Protective Clothing</b>	<b>TDG (pictograms)</b>
	<b>B-3, D-2B</b>		

<b>Section 1. Chemical Product and Company Identification</b>	
<b>Product Name</b> DIESEL FUEL	<b>Code</b> W104 SAP: 120, 121, 122, 287
<b>Synonym</b> Diesel 50, Diesel 50 LS, #1 Diesel, #1 Diesel LS, Diesel LC, Seasonal Diesel, Seasonal Diesel LS, Diesel AA, Domestic Marine Diesel, International marine Diesel, Seasonal Diesel Locomotive, Domestic Marine diesel LS, diesel -20°C (LS), LSD, Low Sulphur Diesel, dyed diesel, marked diesel, coloured diesel, Naval Distillate.	<b>Validated on</b> 3/2/2001.
<b>Manufacturer</b> PETRO-CANADA P.O. Box 2844 Calgary, Alberta T2P 3E3	<b>In case of Emergency</b> Petro-Canada: 403-296-3000 Canutec Transportation: 613-996-6666 Poison Control Centre: Consult local telephone directory for emergency number(s).
<b>Material Uses</b> Diesel fuels are distillate fuels suitable for use in high and medium speed internal combustion engines of the compression ignition type.	

<b>Section 2. Composition and Information on Ingredients</b>					
			<i>Exposure Limits (ACGIH)</i>		
<b>Name</b>	<b>CAS #</b>	<b>% (V/V)</b>	<b>TLV-TWA(8 h)</b>	<b>STEL</b>	<b>CEILING</b>
1) Diesel oil.	68334-30-5	>99.9	Not established*	Not established	Not established
2) Proprietary additives.	Not available	<0.1	Not established	Not established	Not established
3) Aromatic content is 50% maximum ( benzene: nil).					
4) * Notice of Intended Change (2000): 100 mg/m <sup>3</sup> , skin, A3.					
<b>Manufacturer</b>	Not applicable				
<b>Recommendation</b>					
<b>Other Exposure Limits</b>	Consult local, state, provincial or territory authorities for acceptable exposure limits.				

<b>Section 3. Hazards Identification.</b>	
<b>Potential Health Effects</b>	Eye contact may cause mild eye irritation. Skin contact can cause moderate to severe irritation and produce drying, cracking, or defatting dermatitis. Inhalation of vapours can cause CNS depression with symptoms of nausea, headaches, vomiting, dizziness, fatigue, light-headedness, reduced coordination, unconsciousness and possibly death. Inhalation can also cause irritation of nose and throat. Aspiration of liquid drops into the lungs may produce potentially fatal chemical pneumonitis (fluid in the lungs), severe lung damage, or respiratory failure. For more information, refer to Section 11.

<b>Section 4. First Aid Measures</b>	
<b>Eye Contact</b>	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.
<b>Skin Contact</b>	Remove contaminated clothing - launder before reuse. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Seek medical attention.
<b>Inhalation</b>	Evacuate the victim to a safe area as soon as possible. If the victim is not breathing, perform artificial respiration. Allow the victim to rest in a well ventilated area. Seek medical attention.
<b>Ingestion</b>	DO NOT induce vomiting because of danger of aspirating liquid into lungs. Seek medical attention.
<b>Note to Physician</b>	Not available

<b>Section 5. Fire-fighting Measures</b>			
<b>Flammability</b>	Class II - combustible liquid (NFPA).	<b>Flammable Limits</b>	LOWER: 0.7%, UPPER: 6%
<b>Flash Points</b>	Diesel Fuel: Closed Cup: >40°C (>104°F) Marine Diesel Fuel: Closed Cup: >60°C (>140°F)	<b>Auto-Ignition Temperature</b>	225°C (437°F)
<b>Fire Hazards in Presence of Various Substances</b>	Flammable in presence of open flames, sparks, or 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. May accumulate in confined spaces.	<b>Explosion Hazards in Presence of Various Substances</b>	Containers may explode in heat of fire. Do not cut, weld, heat, drill or pressurize empty container. Vapour explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard.
<b>Products of Combustion</b>	Carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO <sub>x</sub> ), sulphur oxides (SO <sub>x</sub> ), sulphur compounds (H <sub>2</sub> S), water vapour (H <sub>2</sub> O), smoke and irritating vapours as products of incomplete combustion.		

<b>Fire Fighting Media and Instructions</b>	<p>NAERG96, GUIDE 128, Flammable liquids (Non-polar/Water-immiscible). CAUTION: This product has a moderate flash point above 40°C: Use of water spray when fighting fire may be inefficient.</p> <p>If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions.</p> <p>SMALL FIRES: Dry chemical, CO<sub>2</sub>, water spray or regular foam. LARGE FIRES: Water spray, fog or regular foam. Do not use straight streams. Move containers from fire area if you can do it without risk. Fires Involving Tanks or Car/Trailer Loads: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.</p> <p>Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting devices or any discolouration of tank. ALWAYS stay away from the ends of tanks. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.</p>
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### Section 6. Accidental Release Measures

<b>Material Release or Spill</b>	<p>NAERG96, GUIDE 128, Flammable Liquids (Non-polar/ Water-immiscible). ELIMINATE ALL IGNITION SOURCES. Avoid contact. Stop leak if without risk. Contain spill. Absorb with inert absorbents, dry clay, or diatomaceous earth. Avoid inhaling dust of diatomaceous earth for it may contain silica in very fine particle size, making this a potential respiratory hazard. Place used absorbent in closed metal containers for later disposal or burn absorbent in a suitable combustion chamber. DO NOT FLUSH TO SEWERS, STREAMS OR OTHER BODIES OF WATER. Check with applicable jurisdiction for specific disposal requirements of spilled material and empty containers. Notify the appropriate authorities immediately.</p>
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### Section 7. Handling and Storage

<b>Handling</b>	<p>Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk. DO NOT reuse empty containers without commercial cleaning or reconditioning. Ground/bond line and equipment during pumping or transfer to avoid accumulation of static charge. DO NOT ingest. Do not breathe gas/vapour/spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately. Avoid contact with skin and eyes. Practice good personal hygiene. Wash hands after handling and before eating. Launder work clothes frequently. Discard saturated leather goods.</p>
<b>Storage</b>	<p>Store in tightly closed containers in cool, dry, isolated, well-ventilated area, and away from incompatibles. Ground all equipment containing material.</p>

### Section 8. Exposure Controls/Personal Protection

<b>Engineering Controls</b>	<p>For normal application, special ventilation is not necessary. If user's operations generate vapours or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Make-up air should always be supplied to balance air removed by exhaust ventilation. Ensure that eyewash station and safety shower are close to work-station.</p>
<b>Personal Protection -</b>	<p><b><i>The selection of personal protective equipment varies, depending upon conditions of use.</i></b></p>
<b>Eyes</b>	<p>Eye protection (i.e., safety glasses, safety goggles and/or face shield) should be determined based on conditions of use. If product is used in an application where splashing may occur, the use of safety goggles and/or a face shield should be considered.</p>
<b>Body</b>	<p>Wear appropriate clothing to prevent skin contact. As a minimum long sleeves and trousers should be worn.</p>
<b>Respiratory</b>	<p>Where concentrations in air may exceed the occupational exposure limits given in Section 2 (and those applicable to your area) and where engineering, work practices or other means of exposure reduction are not adequate, NIOSH approved respirators may be necessary to prevent overexposure by inhalation.</p>
<b>Hands</b>	<p>Wear appropriate chemically protective gloves. When handling hot product ensure gloves are heat resistant and insulated.</p>
<b>Feet</b>	<p>Wear appropriate footwear to prevent product from coming in contact with feet and skin.</p>

### Section 9. Physical and Chemical Properties

<b>Physical State and Appearance</b>	Bright oily liquid.	<b>Viscosity</b>	1.3-4.1 cSt @ 40°C (104°F)
<b>Colour</b>	Clear to yellow / brown. Low sulphur diesel fuels (<0.05 wt % sulphur) are colourless to light yellow (and may be dyed red for taxation purposes). Regular sulphur diesel fuels (0.05-0.50 % sulphur) may be colourless to yellow / brown and are usually dyed red for taxation purposes.	<b>Pour Point</b>	Variable, 0°C to -50°C (32°F to -58°F)
<b>Odour</b>	Petroleum oil like.	<b>Softening Point</b>	Not applicable.
<b>Odour Threshold</b>	Not available	<b>Dropping Point</b>	Not applicable.
<b>Boiling Point</b>	150-371°C (302-700°F)	<b>Penetration</b>	Not applicable.
<b>Density</b>	0.85 kg/L @ 15°C (Water = 1).	<b>Oil / Water Dist. Coefficient</b>	Not available
<b>Vapour Density</b>	4.5 (Air = 1)	<b>Ionicity (in water)</b>	Not applicable.

<b>Vapour Pressure</b>	1.0 kPa @ 20°C (7.5 mmHg @ 68°F).	<b>Dispersion Properties</b>	Not available
<b>Volatility</b>	<0.1 (Butyl acetate = 1), less than gasoline.	<b>Solubility</b>	Insoluble in cold water, soluble in non-polar hydrocarbon solvents.

**Section 10. Stability and Reactivity**

<b>Corrosivity</b>	Not available		
<b>Stability</b>	The product is stable under normal handling and storage conditions.	<b>Hazardous Polymerization</b>	Will not occur under normal working conditions.
<b>Incompatible Substances / Conditions to Avoid</b>	Reactive with oxidizing agents and acids.	<b>Decomposition Products</b>	May release COx, NOx, SOx, H2S, H2O, smoke and irritating vapours when heated to decomposition.

**Section 11. Toxicological Information**

<b>Routes of Entry</b>	Skin contact, eye contact, inhalation, and ingestion.		
<b>Acute Lethality</b>	Acute oral toxicity (LD50): 7500 mg/kg (rat).		
<b>Chronic or Other Toxic Effects</b>	<p>Dermal Route: Skin contact may cause moderate to severe irritation. Repeated exposure would produce drying and cracking or defatting dermatitis.</p> <p>Inhalation Route: Inhalation of vapours can cause CNS depression with symptoms of nausea, headaches, vomiting, dizziness, fatigue, light-headedness, reduced coordination, unconsciousness and possibly death. Inhalation can also cause irritation of nose and throat.</p> <p>Oral Route: Aspiration of liquid drops into the lungs may produce potentially fatal chemical pneumonitis (fluid in the lungs), severe lung damage, or respiratory failure.</p> <p>Eye Irritation/Inflammation: Eye contact may cause mild irritation, but no permanent damage.</p> <p>Immunotoxicity: Not available</p> <p>Skin Sensitization: This product is not expected to be a skin sensitizer, based on the available data and the known hazards of the components.</p> <p>Respiratory Tract Sensitization: This product is not expected to be a respiratory tract sensitizer, based on the available data and the known hazards of the components.</p> <p>Mutagenic: This product is not expected to be a mutagen, based on the available data and the known hazards of the components.</p> <p>Reproductive Toxicity: This product is not expected to be a reproductive hazard, based on the available data and the known hazards of the components.</p> <p>Teratogenicity/Embryotoxicity: This product is not expected to be a teratogen or an embryotoxin, based on the available data and the known hazards of the components.</p> <p>Carcinogenicity (ACGIH): <u>ACGIH Notice of Intended Change (2000): proposed A3: animal carcinogen. [Diesel oil]</u></p> <p>Carcinogenicity (IARC): This product is not known to contain any chemicals at reportable quantities that are listed as group 1, 2A or 2B carcinogens by IARC.</p> <p>Carcinogenicity (NTP): This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by NTP.</p> <p>Carcinogenicity (IRIS): Not available</p> <p>Carcinogenicity (OSHA): This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by OSHA.</p>		
<b>Other Considerations</b>	No additional remark.		

**Section 12. Ecological Information**

<b>Environmental Fate</b>	Not available	<b>Persistence/Bioaccumulation Potential</b>	Not available
<b>BOD5 and COD</b>	Not available	<b>Products of Biodegradation</b>	Not available
<b>Additional Remarks</b>	No additional remark.		



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