



## Material Safety Data Sheet

### Pulsalube #7H, Hydraulic Oil

WHMIS (Pictograms)	WHMIS (Classification)	Protective Clothing	TDG (pictograms)
	<b>Not controlled</b>		

<b>Section 1. Chemical Product and Company Identification</b>	
<b>Product Name</b> <b>DEXRON® III/MERCON® AUTOMATIC TRANSMISSION FLUID</b>	<b>Code</b> 460-601, DEXRON
<b>Synonym</b> Not available	<b>Validated on</b> 9/3/2004.
<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> Automatic transmission fluid for most North American automobiles and for off-highway torque converters requiring C-4 type transmission fluid. It is also suitable as a hydraulic fluid and as a top-up in power steering systems. Not to be used in conditions where aerosols could be generated.	

<b>Section 2. Composition and Information on Ingredients</b>					
			Exposure Limits (ACGIH)		
Name	CAS #	% (V/V)	TLV-TWA(8 h)	STEL	CEILING
Mixture of hydrotreated paraffinic oils and additives.*	Mixture	100	5 mg/m <sup>3</sup> (oil mist)	10 mg/m <sup>3</sup> (oil mist)	Not established
*Contains <0.02% of red dye.					
<b>Manufacturer Recommendation</b> Not applicable					
<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>	Prolonged or repeated contact may cause skin irritation, defatting, drying and dermatitis. Not expected to cause more than slight skin or eye irritation. With its relatively low vapour pressure, this product is not expected to be inhaled in any appreciable quantity at ambient conditions. If heated to high temperatures or subjected to mechanical actions which produce vapours or mists, inhalation may cause respiratory tract irritation. Ingestion may produce a laxative effect. For more information refer to Section 11 of this MSDS.

<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>	May be combustible at high temperature.	<b>Flammable Limits</b>	Not available
<b>Flash Points</b>	OPEN CUP: ≥180°C (356°F) (Cleveland)	<b>Auto-Ignition Temperature</b>	Fire Point: 205°C (401°F)
<b>Fire Hazards in Presence of Various Substances</b>	Low fire hazard. This material must be heated before ignition will occur.	<b>Explosion Hazards in Presence of Various Substances</b>	Do not cut, weld, heat, drill or pressurize empty container. Containers may explode in heat of fire.

<b>Products of Combustion</b>	Carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO <sub>x</sub> ), smoke and irritating vapours as products of incomplete combustion.
<b>Fire Fighting Media and Instructions</b>	NAERG96, GUIDE 171, Substances (low to moderate hazard). If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (0.5 mile) in all directions, also, consider initial evacuation for 800 meters (0.5 mile) in all directions. Shut off fuel to fire if it is possible to do so without hazard. If this is impossible, withdraw from area and let fire burn out under controlled conditions. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. SMALL FIRE: use DRY chemicals, foam, water spray or CO <sub>2</sub> . LARGE FIRE: use water spray, fog or foam. For small outdoor fires, portable fire extinguishers may be used, and self contained breathing apparatus (SCBA) may not be required. For all indoor fires and any significant outdoor fires, SCBA is required. Respiratory and eye protection are required for fire fighting personnel.

### Section 6. Accidental Release Measures

<b>Material Release or Spill</b>	Consult current National Emergency Response Guide Book (NAERG) for appropriate spill measures if necessary. Extinguish all ignition sources. Stop leak if safe to do so. Dike spilled material. Use appropriate inert absorbent material to absorb spilled product. Collect used absorbent for later disposal. Avoid contact with spilled material. Avoid contaminating sewers, streams, rivers and other water courses with spilled material. Notify appropriate authorities immediately.
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### Section 7. Handling and Storage

<b>Handling</b>	Avoid contact with any sources of ignition, flames, heat, and sparks. Avoid eye contact. Avoid skin contact. Avoid inhalation of product vapours or mists. Empty containers may contain product residue. Do not pressurize, cut, heat, or weld empty containers. Do not reuse containers without commercial cleaning and/or reconditioning. Personnel who handle this material should practice good personal hygiene during and after handling to help prevent accidental ingestion of this product. Properly dispose of contaminated leather articles including shoes that cannot be decontaminated.
<b>Storage</b>	Store away from incompatible and reactive materials (See section 5 and 10). Keep container tightly closed. Store in dry, cool, well-ventilated area.

### Section 8. Exposure Controls/Personal Protection

<b>Engineering Controls</b>	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.
<b>Personal Protection - The selection of personal protective equipment varies, depending upon conditions of use.</b>	
<b>Eyes</b>	As a minimum, safety glasses with side shields should be worn when handling this material.
<b>Body</b>	If this material may come in contact with the body during handling and use, we recommend wearing appropriate protective clothing to prevent contact with the skin. (Contact your PPE provider for more information.)
<b>Respiratory</b>	A minimum of NIOSH-approved air-purifying respirator with an organic vapour cartridge or canister with a dust, fume or mist filter (R, or P series) may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. A NIOSH-approved positive-pressure, air-supplied respirator or self-contained breathing apparatus may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.
<b>Hands</b>	If this material may come in contact with the hands during handling and use, we recommend wearing gloves of the following material(s): Neoprene, Nitrile, Polyvinyl alcohol (PVA), Fluoro-elastomer. Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns.
<b>Feet</b>	Wear appropriate footwear to prevent product from coming in contact with feet and skin.

### Section 9. Physical and Chemical Properties

<b>Physical State and Appearance</b>	Viscous liquid.	<b>Viscosity</b>	34.26 cSt @ 40°C (104°F), 7.7 cSt @ 100°C (212°F), VI=210.
<b>Colour</b>	Dark red.	<b>Pour Point</b>	-51°C (-59.8°F).
<b>Odour</b>	Mild 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>	Not available	<b>Penetration</b>	Not applicable
<b>Density</b>	0.855 kg/L @ 15°C(59°F) 7.14 lbs/US gal @ 15°C(59°F)	<b>Oil / Water Dist. Coefficient</b>	Not available
<b>Vapour Density</b>	Not available	<b>Ionicity (in water)</b>	Not available

<b>Vapour Pressure</b>	Negligible at ambient temperature and pressure.	<b>Dispersion Properties</b>	Not available
<b>Volatility</b>	Non-volatile	<b>Solubility</b>	Insoluble in water.

**Section 10. Stability and Reactivity**

<b>Corrosivity</b>	Copper corrosion, 3h, 149°C (ASTM D0130): 1b.		
<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, reducing agents and acids.	<b>Decomposition Products</b>	May release CO <sub>x</sub> , NO <sub>x</sub> , metallic oxides, 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 toxicity information is not available for the product as a whole, therefore, data for the base oils are provided below: Acute oral toxicity (LD50): >5000 mg/kg (rat). Acute dermal toxicity (LD50): >2000 mg/kg (rabbit). Acute inhalation toxicity (LC50): >2500 mg/m <sup>3</sup> /4h (rat).		
<b>Chronic or Other Toxic Effects</b>			
Dermal Route:	Prolonged or repeated contact may defat and dry skin, and cause dermatitis. Short-term exposure is expected to cause only slight irritation, if any.		
Inhalation Route:	With its relatively low vapour pressure, this product is not expected to be inhaled in any appreciable quantity at ambient conditions. If heated to high temperatures or subjected to mechanical actions which produce vapours or mists, inhalation may cause respiratory tract irritation.		
Oral Route:	Ingestion of this product may lead to aspiration of the liquid, especially if vomiting occurs. This may result in chemical pneumonitis (inflammation of the lungs) and/or pulmonary edema (an accumulation of fluid in the lungs) May produce a laxative effect.		
Eye Irritation/Inflammation:	Short-term exposure is expected to cause only slight irritation, if any.		
Immunotoxicity	Not available		
Skin Sensitization:	Contact with this product is not expected to cause skin sensitization, based upon the available data and the known hazards of the components.		
Respiratory Tract Sensitization:	Contact with this product is not expected to cause respiratory tract sensitization, based upon the available data and the known hazards of the components.		
Mutagenic.	This product is not known to contain any components at $\geq 0.1\%$ that have been shown to cause mutagenicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a mutagen.		
Reproductive Toxicity:	This product is not known to contain any components at $\geq 0.1\%$ that have been shown to cause reproductive toxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a reproductive toxin.		
Teratogenicity/Embryotoxicity:	This product is not known to contain any components at $\geq 0.1\%$ that have been shown to cause teratogenicity and/or embryotoxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a teratogen/embryotoxin.		
Carcinogenicity (ACGIH):	This product is not known to contain any chemicals at reportable quantities that are listed as Group A1 or A2 carcinogens by ACGIH.		
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.		
Carcinogenicity (NTP):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by NTP.		
Carcinogenicity (IRIS):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by IRIS.		
Carcinogenicity (OSHA):	This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by OSHA.		
<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

**Additional Remarks** No additional remark.

**Section 13. Disposal Considerations**

**Waste Disposal** Spent/ used/ waste product may meet the requirements of a hazardous waste. Consult your local or regional authorities. Ensure that waste management processes are in compliance with government requirements and local disposal regulations.

**Section 14. Transport Information**

<b>TDG Classification</b>	Not a hazardous material for transport according to the TDG Regulations. (Canada)	<b>Special Provisions for Transport</b>	Not applicable.
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**Section 15. Regulatory Information**

**Other Regulations** This product is acceptable for use under the provisions of WHMIS-CPR. All components of this formulation are listed on the CEPA-DSL (Domestic Substances List).

All components of this formulation are listed on the US EPA-TSCA Inventory.

All components of this product are on the European Inventory of Existing Commercial Chemical Substances (EINECS).


German Water Hazard Classification (Verwaltungsvorschrift wassergefährdende Stoffe - VwVwS) WGK=2

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

Please contact Product Safety for more information

<b>DSD/DPD (Europe)</b>	Not classified under the Dangerous Substances or Dangerous Preparations Directives.	<b>HCS (U.S.A.)</b>	Does not meet the definitions of a health or physical hazard according to the OSHA - Hazard Communication Standard. (United States)
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<b>ADR (Europe) (Pictograms)</b>		<b>DOT (U.S.A.) (Pictograms)</b>	
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<b>HMIS (U.S.A.)</b>	<b>Health Hazard</b>	1	<b>NFPA (U.S.A.)</b>		<b>Fire Hazard</b>	Rating	0 Insignificant
	<b>Fire Hazard</b>	1					1 Slight
	<b>Reactivity</b>	0					2 Moderate
	<b>Personal Protection</b>	B					3 High
				<b>Specific hazard</b>		4 Extreme	

**Section 16. Other Information**

**References** Available upon request.  
\* Marque de commerce de Petro-Canada - Trademark

**Glossary**

ACGIH - American Conference of Governmental Industrial Hygienists	IRIS - Integrated Risk Information System
ADR - Agreement on Dangerous goods by Road (Europe)	LD50/LC50 - Lethal Dose/Concentration kill 50%
ASTM - American Society for Testing and Materials	LDLo/LCLo - Lowest Published Lethal Dose/Concentration
BOD5 - Biological Oxygen Demand in 5 days	NAERG'96 - North American Emergency Response Guide Book (1996)
CAN/CGA B149 2 Propane Installation Code	NFPA - National Fire Prevention Association
CAS - Chemical Abstract Services	NIOSH - National Institute for Occupational Safety & Health
CEPA - Canadian Environmental Protection Act	NPRI - National Pollutant Release Inventory
CERCLA - Comprehensive Environmental Response, Compensation and Liability Act	NSNR - New Substances Notification Regulations (Canada)
CFR - Code of Federal Regulations	NTP - National Toxicology Program
CHIP - Chemicals Hazard Information and Packaging Approved Supply List	OSHA - Occupational Safety & Health Administration
COD5 - Chemical Oxygen Demand in 5 days	PEL - Permissible Exposure Limit
CPR - Controlled Products Regulations	RCRA - Resource Conservation and Recovery Act
DOT - Department of Transport	SARA - Superfund Amendments and Reorganization Act
DOSL - Dangerous Substances Classification and Labeling (Europe)	SD - Single Dose
DSD/DPD - Dangerous Substances or Dangerous Preparations Directives (Europe)	STEL - Short Term Exposure Limit (15 minutes)
	TDG - Transportation Dangerous Goods (Canada)
	TDLo/TCLo - Lowest Published Toxic Dose/Concentration

DSL - Domestic Substance List  
 EEC/EU - European Economic Community/European Union  
 EINECS - European Inventory of Existing Commercial Chemical Substances  
 EPCRA - Emergency Planning and Community Right to Know Act  
 FDA - Food and Drug Administration  
 FIFRA - Federal Insecticide, Fungicide and Rodenticide Act  
 HCS - Hazard Communication Standard  
 HMIS - Hazardous Material Information System  
 IARC - International Agency for Research on Cancer

TLM - Median Tolerance Limit  
 TLV-TWA - Threshold Limit Value-Time Weighted Average  
 TSCA - Toxic Substances Control Act  
 USEPA - United States Environmental Protection Agency  
 USP - United States Pharmacopoeia  
 WHMIS - Workplace Hazardous Material Information System

#### For Copy of MSDS

The Canadian Controlled Products Regulations (CPR) (Under the Hazardous Products Act, part of the WHMIS legislation) only apply to WHMIS Controlled (i.e., hazardous) products. Therefore, the CPR and the 3-year update rule specified therein do not apply to WHMIS Non-Controlled products. Although this is true, customarily Petro-Canada reviews and updates Non-Controlled product MSDS if a customer requests such an update. These Non-Controlled product updates are given a lower priority than Controlled products but are handled as soon as practicable. If you would like to verify if the MSDS you have is the most current, or you require any further information, please contact:

Internet: [www.petro-canada.ca/msds](http://www.petro-canada.ca/msds)

#### Lubricants:

Western Canada, telephone: 1-800-661-1199; fax: (780) 464-9564  
 Ontario & Central Canada, telephone: 1-800-268-5850 and (905) 822-4222; fax:  
 1-800-201-6285  
 Quebec & Eastern Canada, telephone: 1-800-576-1686; fax: 800-201-6285

For Product Safety Information: (905) 804-4752

Prepared by Product Safety - TLM on 9/3/2004.

Data entry by Product Safety - RS.

*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 the accuracy or 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.*