

MATERIAL SAFETY DATA SHEET

MSDS File Number: 189

SECTION I - MATERIAL IDENTIFICATION AND USE			FLAMMABILITY	1
Material Name / Product Identifier D-MO MOTOR OIL			REACTIVITY	0
Manufacturer's Name Consumers' Co-operative Refineries Limited P.O.Box 260; 550E 9th Avenue North Regina, SK S4P 3A1 CANADA (306) 721-5353	Supplier's Name Federated Co-operatives Limited P.O.Box 1050; 401 - 22nd Street East Saskatoon, SK S7K 3M9 CANADA (306) 244-3447		HEALTH (Acute)	0
			(Chronic)	N
Emergency Telephone Number (613) 996-6666 (Canutec)	Emergency Telephone Number		Mfg Reference Number	
Chemical Name N.D.	Chemical Family N.D.		Chemical Formula Mixture.	
Molecular Weight N.D.	Trade Name and Synonyms SAE 10W30; 15W40; 20W20; 10W; 30; 40		Material Use Lubricating Oil.	

SECTION II - HAZARDOUS INGREDIENTS OF MATERIALS				
Hazardous Ingredients	Approximate Concentration %	C.A.S. Numbers	Exposure Limits	LD50 / LC 50 (Species and Route)
Base Oil	60.0 - 90.0 %		(ACGIH) TLV-TWA 5 mg/m3 (oil mist)	(LD50) Oral (rat) > 5,000 mg/kg
Additive Package:	20.0 - 25.0 %		(ACGIH) TLV-TWA 5 mg/m3 (oil mist)	
*Zinc C1-C14 Alkyldithiophosphate	1.0 - 2.0 %	68649-42-3		
(*) Denotes: Component of the additive package.				

SECTION III - PHYSICAL DATA FOR MATERIAL				
Physical State Liquid	Odour and Appearance Brown oily liquid; mild odour	Odour Threshold (ppm) N.D.	Specific Gravity .8814 - .8954 @ 15.6 C	
Vapour Pressure N.D.	Vapor Density (Air = 1) N.D.	Evaporation Rate N.D.	Boiling Point N.D.	Freezing / Pour Point -20 C
Solubility in Water (20 C) Slight	% Volatiles N.D.	pH N.D.	Coefficient of water / oil distribution N.D.	

SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL			
Conditions of Flammability May form combustible mixtures with air at temperatures at or above the flashpoint.			
Means of Extinction Foam, water spray, dry chemical, carbon dioxide.			
Special Procedures Cool fire exposed containers with water spray. Due to the danger of boilover, avoid getting water into container. Move containers away from fire area if at no risk. Vapours may travel to distant ignition sources and flashback. Fire fighters should wear self contained breathing apparatus.			
Flash Point and Method > 147.0 C (Open Cup)	Upper Explosion Limit N/A	Lower Explosion Limit N/A	Auto Ignition Temperature 413.0 C
Explosion Data - Sensitivity to Mechanical Impact N.D.	Explosion Data - Sensitivity to Static Discharge N.D.		

SECTION V - REACTIVITY DATA		
Chemical Stability Yes.	If no, under which conditions?	Stable under normal conditions of use and storage.
Incompatibility to other substances Yes.	If so, which ones?	Unstable with strong oxidizers.
Reactivity and under what conditions Exposure to heat or oxidizing materials will greatly increase fire hazard. Hazardous polymerization will not occur.		
Hazardous Decomposition and Combustion Products Incomplete combustion may produce aldehydes, hydrogen sulfide, short chain alkyl mercaptans and oxides of carbon, sulphur, calcium, phosphorus and zinc.		



Material Name / Product Identifier **D-MO MOTOR OIL**

SECTION VI - TOXICOLOGICAL PROPERTIES OF PRODUCT

Route of Entry **Skin Contact, Eye Contact, Inhalation, Ingestion.**

Effects of Acute Exposure to Product

Based on data of components, not expected to irritate skin or eyes. Low oral toxicity; if aspirated into the lungs from swallowing or vomiting, this material may cause severe health effects (eg. chemical pneumonitis).

Effects of Chronic Exposure to Product

Repeated or prolonged contact with skin from clothing wet with material may cause skin irritation.

LD50 of Product Oral (rat) >5000 mg/kg.	Irritancy of Product N.D.	Exposure Limits of Product (ACGIH) TLV 5 mg/m3 (oil mist).
LC50 of Product N.D.	Sensitization to Product N.D.	Synergistic materials N.D.

OTHER TOXICOLOGICAL EFFECTS: None.

There is no data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard. There is no data available to indicate any components present at greater than 0.1% that may cause mutagenic, teratogenic or reproductive effects. Ingredient Zinc C1-C14 Alykyldithiophosphate is a known eye irritant at concentration levels above 5%.

SECTION VII - PREVENTATIVE MEASURES

Personal Protective Equipment

Wear chemical resistant clothing if prolonged skin contact is likely.

Gloves
Neoprene or nitrile.

Eye Protection
Safety glasses with side shields or chemical goggles.

Respiratory
Not normally required if used with adequate ventilation. Wear an appropriate NIOSH approved respirator if concentration levels exceed the safe exposure limits.

Engineering Controls
Use only in well ventilated areas. Use of mechanical ventilation is recommended.

Leak and Spill Procedure
Ventilate area. Remove ignition sources. Contain (prevent entry into waterways). Wear protective equipment as necessary including rubber boots. Pump up using an explosion proof pump. Soak up remainder with an inert, absorbent material.

Waste Disposal
Recycle, dispose of or incinerate product and/or contaminated materials in accordance with all government regulations. Take the necessary action to prevent or remedy the adverse effects of any spill.

Handling Procedures and Equipment
Avoid prolonged contact with skin. Wear chemical resistant clothing if prolonged contact with skin is likely. Avoid eye contact. Wear chemical goggles if splashing may occur. Avoid breathing vapours. Use with adequate ventilation. Wash thoroughly after handling. Launder contaminated clothing before reuse. Keep away from heat and ignition sources. Empty container may contain product residue which may exhibit hazards of product.

Storage Requirements
Store in a cool, ventilated area, out of direct sunlight. Keep container closed when not in use.

Special Shipping Information
TDG: Not Regulated.

SECTION VIII - FIRST AID MEASURES

Skin
Remove contaminated clothing. Wash skin with soap and running water. If irritation persists or develops, seek medical attention. Launder contaminated clothing before reuse.

Eye
Flush eyes with running water for at least 15 minutes while occasionally holding eyelids open to ensure thorough flushing. If irritation persists or develops, seek medical attention.

Inhalation
Remove to fresh air. If breathing has stopped, begin CPR. If breathing is difficult, give oxygen. Seek medical attention.

Ingestion
Do not induce vomiting. Rinse mouth out and give 8 ounces of milk or water to drink. Keep at rest Seek medical attention.

General Advice
If spontaneous vomiting occurs, have victim lean forward so that their head is between their knees. Vomiting may result in aspiration into the lungs causing chemical pneumonitis.

SECTION IX - PREPARATION OF M.S.D.S

W.H.M.I.S. Classification
Not a controlled product.

N.F.C. Classification

Sources Used
Available upon request.

Prepared By
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