

# MATERIAL SAFETY DATA SHEET

MSDS File Number: 184

<b>SECTION I - MATERIAL IDENTIFICATION AND USE</b>		<b>FLAMMABILITY</b>	<b>1</b>
Material Name / Product Identifier <b>INDUSTRIAL HYDRAULIC OIL</b>		<b>REACTIVITY</b>	<b>0</b>
Manufacturer's Name <b>Consumers' Co-operative Refineries Limited</b> P.O.Box 260; 550E 9th Avenue North Regina, SK S4P 3A1 CANADA (306) 721-5353	Supplier's Name <b>Federated Co-operatives Limited</b> P.O. Box 1050; 401 - 22nd Street East Saskatoon, SK S7K 3M9 CANADA (306) 244-3447	<b>HEALTH (Acute)</b>	<b>0</b>
		<b>(Chronic)</b>	<b>N</b>
Emergency Telephone Number <b>(613) 996-6666 (Canutec)</b>	Emergency Telephone Number	Mfg Reference Number	
Chemical Name <b>Mixture</b>	Chemical Family <b>Petroleum Hydrocarbon</b>	Chemical Formula <b>Mixture.</b>	
Molecular Weight <b>N.D.</b>	Trade Name and Synonyms <b>ISO GRADES 22, 32, 46, 68, 100, 150, MV22; HVI 36</b>	Material Use <b>Hydraulic Oil.</b>	

## 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 - 100.0 %		(ACGIH) TLV-TWA 5 mg/m3 (oil mist)	(LD50) Oral (rat) > 5,000 mg/kg
Additive Package(*)	1.0 - 7.0 %		(ACGIH) TLV-TWA 5 mg/m3 (oil mist)	

(\*) Denotes: Additive package containing rust/oxidization inhibitor, anti-foam agent, anti-wear compound and viscosity modifier.

## SECTION III - PHYSICAL DATA FOR MATERIAL

Physical State <b>Liquid</b>	Odour and Appearance <b>Brown oily liquid; mild odour</b>	Odour Threshold (ppm) <b>N.D.</b>	Specific Gravity <b>.8635 - .8894 @ 15.6 C</b>
Vapour Pressure <b>N.D.</b>	Vapor Density (Air = 1) <b>N.D.</b>	Evaporation Rate <b>N.D.</b>	Boiling Point <b>N.D.</b>
Solubility in Water (20 C) <b>Slight</b>	% Volatiles <b>N.D.</b>	pH <b>N.D.</b>	Coefficient of water / oil distribution <b>N.D.</b>

## SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

Conditions of Flammability <b>May form combustible mixtures with air at temperatures at or above the flashpoint.</b>			
Means of Extinction <b>Foam, water spray, dry chemical, carbon dioxide.</b>			
Special Procedures <b>Cool fire exposed containers with water spray. Due to danger of slop over, avoid getting water into containers. 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.</b>			
Flash Point and Method <b>&gt; 147.0 C (Open Cup)</b>	Upper Explosion Limit <b>N/A</b>	Lower Explosion Limit <b>N/A</b>	Auto Ignition Temperature <b>413.0 C</b>
Explosion Data - Sensitivity to Mechanical Impact <b>N.D.</b>		Explosion Data - Sensitivity to Static Discharge <b>N.D.</b>	

## SECTION V - REACTIVITY DATA

Chemical Stability <b>Yes.</b>	If no, under which conditions? <b>Stable under normal conditions of use and storage.</b>
Incompatibility to other substances <b>Yes.</b>	If so, which ones? <b>Unstable with strong oxidizers.</b>
Reactivity and under what conditions <b>Exposure to heat or oxidizing materials may greatly increase fire hazard. Hazardous polymerization will not occur.</b>	
Hazardous Decomposition and Combustion Products <b>Incomplete combustion may produce aldehydes and oxides of carbon, sulphur, phosphorus and zinc.</b>	



## SECTION VI - TOXICOLOGICAL PROPERTIES OF PRODUCT

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

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 this material may cause skin irritation.**

LD50 of Product <b>Oral (rat) &gt;5000 mg/kg.</b>	Irritancy of Product <b>No.</b>	Exposure Limits of Product <b>See 'Hazardous Ingredients'.</b>
LC50 of Product <b>N.D.</b>	Sensitization to Product <b>N.D.</b>	Synergistic materials <b>N.D.</b>

**OTHER TOXICOLOGICAL EFFECTS: None.**

**There is no data available to indicate any components present at greater than 0.1% that 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.**

## SECTION VII - PREVENTATIVE MEASURES

Personal Protective Equipment

**Wear chemical resistant clothing if prolonged skin contact is likely.**

Gloves <b>Neoprene or nitrile gloves.</b>	Eye Protection <b>Safety glasses with side shields or chemical goggles.</b>
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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 skin contact is likely. Avoid eye contact. Wear chemical goggles if splashing may occur. 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 holding eyelids open occasionally 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 <b>Not a controlled product.</b>	N.F.C. Classification
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Sources Used  
**Available upon request.**

Prepared By <b>CCRL Safety Department</b>	Phone Number <b>(306) 721-0564</b>	Date <b>January 2, 2007</b>
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