



## Crankcase Oil

### Models

Case	6100
Twin-Pack	6105
Bottle	6107
Drum	6109

### TYPICAL INSPECTION TESTS

Grade ASTM .....	315
Grade AGMA .....	2
API Specific Gravity, @60°F .....	29.4
Specific Gravity @60°F .....	0.88
Color ASTM .....	< 7.0
Flash Point COC °F .....	400°
Fire Point COC °F .....	424°
Pour Point °F Typical .....	-40°
Kinematic Viscosity	
104°F, cst .....	68.0
212°F, cst .....	10.2
Viscosity Index .....	135
Aniline Point °F .....	190°
Foam Test ASTM .....	Pass
Total Acid Number, mg*KOH/g .....	0.9
Total Base Number, mg*KOH/g .....	0.6
Carbon Residue, Rams, Wt. % .....	.026
Rust Test, ASTM D 665, A&B .....	Pass
Copper Corrosion, 3 Hrs. @212°F .....	1a

### FEATURES

- Special custom-blend, multi-viscosity, ISO-68 petroleum based hydraulic oil for high pressure pump systems.
- Non-detergent for greater wear and protection at high RPM and high pressure.
- Anti-wear, high pressure, and oxidizer inhibitor additives for maximum protection and wear.
- Runs significantly cooler than typical oils, enhancing the longevity of components.

### SPECIFICATIONS

	6100	6105	6107	6109
<b>Grade</b>				
<b>Special Hydraulic...</b>	ISO-68	ISO-68	ISO-68	ISO-68
<b>Capacity .....</b>	Case	5 Gal.	Bottle	Drum
	(12-21 oz.)	(2-2.5 Gal.)	(21 oz.)	(30 Gal.)
<b>Weight .....</b>	17 lbs.	41 lbs.	21 oz.	243 lbs.
<b>Dimensions .....</b>	10x10x6.75"	15x15x9.5"	6x3x2"	18x29"

### GENERAL USE

Establishing a regular crankcase oil change schedule is one of the most important steps in preventative maintenance and to assure long pump life. **Check for oil in the crankcase before starting your pump.** Running your pump without oil will VOID the Warranty. Periodically inspect to assure the oil level is at the red dot or midpoint on the gauge. Remove the oil cap on the top of the crankcase and inspect for water or other contaminants in the oil. Change immediately, if discolored or contaminated. Change initial fill after 50 hours running period. Change oil every 3 months or at 500 hour intervals thereafter.

Refer to individual data sheet or service manuals for prescribed

amount of oil for each pump crankcase and fill crankcase to designated level (usually to marking on oil gauge).

Pumps using wicks should be periodically lubricated through the access holes on the top front of the crankcase. See Tech Bulletin 024 on lubrication of the Lo-Pressure seals. Larger pumps often use oilers.

Oilers should be filled at start-up and opened for a minimum of thirty minutes prior to start-up. Adjust drip rate after start-up according to operating cycle of pump. (Approximately 2-3 drops per hole per week for typical installation.) See Tech Bulletin 024.

*“Customer confidence is our greatest asset”*

# MATERIAL SAFETY DATA SHEET

7-1-07

Product Trade Name: *CAT PUMPS Premium Grade Hydraulic*  
Chemical Name & Synonyms: *Non-Detergent Multi-Viscosity ISO-68*  
*Grade with Anti-Wear, High Pressure, and Oxidation Inhibitor Additives*  
Chemical Family: *Petroleum Hydrocarbon plus additives*  
Formula: *Petroleum Base Stock and Zinc Dithiophosphate*

National Fire Protection Association 704M Signal (or estimate)  
Freight Class: 65  
EMERGENCY NUMBER: 800-424-9300

## I. HAZARDOUS INGREDIENTS - IDENTITY INFORMATION

OSHA PEL .....Paraffin Base Mixture .....5 mg/m<sup>3</sup> (oil mist)  
ACGIH TVL.....5 mg/m<sup>3</sup>  
No regulated ingredients. Contains ZDDP (below reportable threshold).  
Evenly refined mineral oils.  
Proprietary additives.

## II. PHYSICAL DATA

- a. Boiling point (°F): >400°F (>204°C)
- b. Vapor pressure (mm Hg): *Not determined.*
- c. Vapor density (Air = 1): >1
- d. Solubility in water (%): *Negligible*
- e. Specific gravity (H<sub>2</sub>O = 1): 0.88@60°F (15.6°C)
- f. Percent volatile by volume: *Negligible*
- g. Evaporation rate: (n-Butyl Acetate=1) *Negligible*
- h. Appearance and odor: *Greenish fluid, mild petroleum odor*
- i. Melting point: *Liquid*

## III. FIRE AND EXPLOSION HAZARD DATA

- a. Flash point: >392°F
- b. Ignition temperature (°F): 730 estimated
- c. Flammable limitation: LEL 0.9% UEL: 7%
- d. Extinguishing media: *Water Fog, Foam, Co<sub>2</sub>, Dry Chemicals*
- e. Special fire fighting procedures: *Use water spray to keep fire-exposed containers cool. If leak or spill has not ignited, use water spray to disperse the vapors. Utilize air-supplied breathing equipment in confined or enclosed areas.*
- f. Unusual fire and explosion hazards: *Empty containers can be dangerous; do not cut, weld, solder, drill or grind—explosion can result.*
- g. HMIS Rating: *Health - 1, Fire - 1, Reactivity - 0, Special Hazard - B*

## IV. HEALTH HAZARD DATA

- a. Route(s) of Entry: Inhalation *Not a problem at room temperature/avoid mist*  
Skin *Avoid prolonged skin contact.*  
Ingestion *Possible*
- b. Health Hazards (Acute and Chronic): *Prolonged or repeated skin contact may cause irritation. Eye contact can cause discomfort. Ingestion can cause gastrointestinal distress.*
- c. Carcinogenicity: NTP *No*  
IARC Monographs *No*  
OSHA Regulated *No*
- d. Medical Conditions: *Generally Aggravated by Exposure: Product has a low order of toxicity. In normal use should not be harmful.*

## Emergency and First Aid Procedures:

- a. Eyes: *Flush with clean, clear water until irritation subsides. If irritation persists, see a physician.*
- b. Skin: *Remove contaminated clothing, wash contaminated area thoroughly with soap and water. If redness or irritation occurs, seek medical attention.*
- c. Inhalation: *If overcome by inhalation of hot vapors, remove to fresh air. Seek immediate medical attention if necessary.*
- e. Ingestion: *Do not induce vomiting, contact a physician.*

## V. REACTIVITY DATA

- a. Stability: *Stable*
- b. Incompatible materials: *Strong oxidizing materials and acids.*
- c. Hazardous Decomposition Products: *May form oxides of carbon, sulfur, phosphorus and nitrogen if combusted.*
- d. Hazardous Polymerization: *Will not occur.*
- e. Conditions to avoid: *High temperature and product contamination.*

## VI. PRECAUTIONS FOR SAFE HANDLING AND USE

- a. Steps to be taken in case material is released or spilled: *Contain spill with use of sorbent media. Keep spill from entering sewers or waterways.*
- b. Waste disposal methods: *Disposal must be in accordance with local, state and federal regulations.*
- c. Precautions to be taken in handling and storing: *Keep containers closed when not in use. Store in cool, dry area away from sources of ignition.*
- d. Other precautions: *Do not pressurize, weld, cut, solder, or drill empty drums. Fumes can be explosive.*

## VII. SPECIAL PROTECTION INFORMATION

- a. Respiratory Protection (Specify Type): *Normally not needed.*
- b. Ventilation: Local exhaust: *Not Necessary*  
Mechanical (General): *Recommended*  
Special: *No* Other: *No*
- c. Protective Gloves: *Oil resistant.*
- d. Eye Protection: *Chemical goggles, splash shield.*
- e. Other Protective Clothing or Equipment: *Oil resistant apron if desired.*
- f. Work/Hygienic Practices: *Launder contaminated clothing before re-use. Cleanse skin thoroughly after contact. Properly dispose of contaminated leather articles and other materials which cannot be decontaminated.*

Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

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