



Hydraulic Brake Oil - LHM Fluid

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MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product identifier : **Hydraulic Brake Oil - LHM Fluid**

Product Code(s) : None reported.

Product Use : Lubricant

Chemical Family : Mixture.

Supplier's name and address:
Viscosity Oil Company
600-H Joliet Road
Willowbrook, IL, U.S.A.
60527

Manufacturer's name and address:
Refer to Supplier

Information Telephone # : (630) 850-4000

24 Hr. Emergency Tel # : Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.).

SECTION 2 - HAZARDS IDENTIFICATION

Classification : WHMIS information: This product is not a WHMIS controlled product in Canada.

OSHA: This material is not classified as hazardous under OSHA regulations (29 CFR Part 1910.1200).

Emergency Overview : Clear green liquid. Petroleum odor.
Fumes from heated product or mists may irritate respiratory tract. May cause eye and skin irritation. May be harmful or fatal if swallowed. Aspiration may occur during swallowing or vomiting, resulting in lung injury. Toxic fumes are released in fire situation.

POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

Inhalation : Fumes from heated product or mists, may irritate respiratory tract.

Skin : May cause mild skin irritation. Oils can block the skin pores causing an acne-like disorder. Hydrocarbons injected into the skin under pressure can cause severe injury. Symptoms from pressure injection may include inflammation, swelling and severe, permanent tissue damage. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury. Exposure to hot material may cause thermal burns.

Eyes : May cause mild eye irritation.

Ingestion : May have laxative effects. May cause nausea, vomiting, and diarrhea. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

Effects of long-term (chronic) exposure

: Prolonged or repeated skin contact may cause irritation, defatting or dermatitis (rash). Oils can block the skin pores causing an acne-like disorder. Overexposure to sprays or mists may cause chemical pneumonitis (inflammation of lung tissue).

Carcinogenic status : See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards : See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects : See ECOLOGICAL INFORMATION, Section 12.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS



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Ingredients	CAS #	Wt.%
Hydrocracked, hydroisomerized, C15-C55 high viscosity index paraffinic hydrocarbons	Mixture	60.00 - 100.00
Interchangeable neutral oils	Mixture	1.00 - 5.00
Paraffinic hydrocarbons	72623-86-0	1.00 - 5.00

Note: Hydrocracked, hydroisomerized, C15-C55 high viscosity index paraffinic hydrocarbons may be a mixture of the following CAS numbers: 178603-64-0; 178603-65-1; 178603-66-2. Interchangeable neutral oils may be a mixture of the following CAS numbers: 64742-65-0; 64741-88-4; 64742-55-8; 64741-89-5.

SECTION 4 - FIRST AID MEASURES

- Inhalation** : If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. When symptoms persist or in all cases of doubt seek medical advice.
- Skin contact** : Remove/Take off immediately all contaminated clothing. Wash off immediately with soap and plenty of water. Wash contaminated clothing before reuse. When symptoms persist or in all cases of doubt seek medical advice. If thermal burns are present: Treat all thermal burns with appropriate first aid measures for degree of burn. Cool skin rapidly with cold water, if material is hot. Subcutaneous injection may require surgical treatment. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.
- Eye contact** : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Ingestion** : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt seek medical advice.
- Notes For Physician** : Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

- Fire hazards/conditions of flammability** : Not flammable under normal conditions of use. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapours are heavier than air and collect in confined and low-lying areas. Material will float on water and can be re-ignited at the water's surface.
- Flammability classification (OSHA 29 CFR 1910.1200)** : Non-flammable.
- Oxidizing properties** : None known.
- Explosion data: Sensitivity to mechanical impact / static discharge** : Not expected to be sensitive to mechanical impact or static discharge.
- Suitable extinguishing media** : Dry chemical; Carbon dioxide (CO₂); Foam; water fog. Do not use a solid water stream as it may scatter and spread fire.
- Special fire-fighting procedures/equipment** : Move containers from fire area if safe to do so. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Water spray may be useful in cooling equipment exposed to heat and flame. Avoid spreading burning liquid with water spray used for cooling purposes. Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products** : Carbon oxides; Hydrocarbons; Phosphorus compounds; nitrogen oxides (NO_x); Sulphur oxides.
- NFPA Rating**
- | | | | | |
|-------------|-----------------|----------------|------------------|------------|
| 0 - Minimal | 1 - Slight | 2 - Moderate | 3 - Serious | 4 - Severe |
| Health: 1 | Flammability: 1 | Instability: 0 | Special Hazards: | None |



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SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Wear suitable protective equipment. Refer to protective measures listed in sections 7 and 8. Keep people away from and upwind of spill/leak.
- Environmental precautions** : Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.
- Spill response/cleanup** : Ventilate area of release. Remove all sources of ignition. Stop spill or leak at source if safely possible. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Do not flush into surface water or sanitary sewer system. Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.
- Prohibited materials** : None known or reported by the manufacturer.
- Special spill response procedures** : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).
 US CERCLA Reportable quantity (RQ): None reported.

SECTION 7 - HANDLING AND STORAGE

- Safe Handling procedures** : Do not breathe fumes or mists. Use only in well-ventilated areas. Wear protective gloves/clothing and eye/face protection. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from incompatibles. Keep container tightly closed. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Wash thoroughly after handling.
- Storage requirements** : Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Inspect periodically for damage or leaks. Protect against physical damage. No smoking in the area. Keep away from incompatibles.
- Incompatible materials** : Oxidizing agents.
- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

<u>Exposure Limits</u>				
<u>Ingredients</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Hydrocracked, hydroisomerized, C15-C55 high viscosity index paraffinic hydrocarbons	N/Av	N/Av	N/Av	N/Av
Interchangeable neutral oils	5 mg/m ³ (As 'Oil mist, mineral')	N/Av	5 mg/m ³ (As 'Oil mist, mineral')	N/Av
Paraffinic hydrocarbons	N/Av	N/Av	N/Av	N/Av

- Ventilation and engineering measures** : Use only in well-ventilated areas. Provide sufficient ventilation to keep vapour concentration below the given TLV and/or PEL.
- Respiratory protection** : Respiratory protection is required if the concentrations exceed the TLV. Use NIOSH/MSHA approved equipment. Advice should be sought from respiratory protection specialists.
- Skin protection** : Wear protective gloves. If handling hot material, use insulated protective clothing (boots, gloves, aprons, etc.). Advice should be sought from glove suppliers.
- Eye / face protection** : Safety goggles or glasses as appropriate for the job.



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Other protective equipment : Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. If handling hot material, use insulated protective clothing (boots, gloves, aprons, etc.). Ensure that eyewash stations and safety showers are close to the workstation location.

General hygiene considerations : Do not breathe fumes or mists. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid.	Appearance	: Clear green liquid.
Odour	: Petroleum odour.	Odour threshold	: N/Av
pH	: N/Av		
Boiling point	: N/Av	Specific gravity	: 0.83
Melting/Freezing point	: Pour point > - 29°C (> - 51°F)	Coefficient of water/oil distribution	: N/Av
Vapour pressure (mmHg @ 20° C / 68° F)	: N/Av	Solubility in water	: insoluble
Vapour density (Air = 1)	: N/Av	Evaporation rate (n-Butyl acetate = 1)	: N/Av
Volatile organic Compounds (VOC's)	: N/Av	Volatiles (% by weight)	: N/Av
Flash point	: 177°C (350°F)		
Flash point Method	: Tag closed cup	Auto-ignition temperature	: N/Av
Lower flammable limit (% by vol.)	: N/Av	Upper flammable limit (% by vol.)	: N/Av
Flame Projection Length	: N/Av	Flashback observed	: N/Av

Section 10: Stability And Reactivity

Stability and reactivity : Stable under normal conditions.
Hazardous polymerization : Hazardous polymerisation does not occur.
Conditions to avoid : Direct sources of heat. Avoid contact with incompatible materials.
Materials To Avoid And Incompatibility : Oxidizing agents.
Hazardous decomposition products : None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

Target organs : Eyes, skin, respiratory system and digestive system.
Routes of exposure : *Inhalation:* YES *Skin Absorption:* NO *Skin & Eyes:* YES *Ingestion:* YES
Toxicological data : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<u>Ingredients</u>	<u>LC₅₀(4hr)</u>		<u>LD₅₀</u>	
	<u>inh.</u>	<u>rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Hydrocracked, hydroisomerized, C15-C55 high viscosity index paraffinic hydrocarbons	N/Av		N/Av	N/Av
Interchangeable neutral oils	>4000 mg/m ³		>5000 mg/kg	>5000 mg/kg
Paraffinic hydrocarbons	2.18 mg/L 4 h		>5000 mg/kg	N/Av

Carcinogenic status : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.



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- Reproductive effects** : Not expected to be cause reproductive effects.
Teratogenicity : Not expected to be a teratogen.
Mutagenicity : Not expected to be mutagenic in humans.
Epidemiology : No information available.
Sensitization to material : Not expected to be a skin or respiratory sensitizer.
Synergistic materials : No information available.
Irritancy : May be mildly irritating to eyes and skin.
other important hazards : None known.
Conditions aggravated by overexposure
: Pre-existing skin and respiratory disorders.

SECTION 12 - ECOLOGICAL INFORMATION

- Ecotoxicity** : No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.
Mobility : The product itself has not been tested.
Persistence : The product itself has not been tested. None of the ingredients in this product are considered to be readily biodegradable, and this product is not soluble in water. Therefore, this product is expected to persist in the environment.
Bioaccumulation potential : The product itself has not been tested.
Other Adverse Environmental effects
: None known.

SECTION 13 - DISPOSAL CONSIDERATIONS

- Handling for Disposal** : Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not cut, weld, drill or grind on or near this container.
Methods of Disposal : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.
RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14: TRANSPORT INFORMATION



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Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
49CFR/DOT	None	Not regulated.	Not regulated	none	
49CFR/DOT Additional information	None.				
TDG	None	Not regulated.	Not regulated	none	
TDG Additional information	None.				
IMDG	None	Not regulated.	Not regulated	none	
IMDG Additional information	None.				

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Acute Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above de minimus concentrations.

US State Right to Know Laws:

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

International Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

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

SECTION 16 - OTHER INFORMATION

HMIS Rating : * - Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe
Health: 1 Flammability: 1 Reactivity: 0

Legend : ACGIH: American Conference of Governmental Industrial Hygienists
 CAS: Chemical Abstract Services




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CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
cSt: Centistokes
DOT: Department of Transportation
EPA: Environmental Protection Agency
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
IMDG: International Maritime Dangerous Goods
Inh: Inhalation
LC: Lethal Concentration
LD: Lethal Dose
MSHA: Mine Safety and Health Administration
N/Ap: Not Applicable
N/Av: Not Available
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References

- 1. ACGIH, Threshold Limit Values and Biological Exposure Indices
- 2. International Agency for Research on Cancer Monographs
- 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2010 (Chempendium, HSDB, RTECs).
- 4. Material Safety Data Sheet from manufacturer
- 5. US EPA Title III List of Lists
- 6. California Proposition 65 List

<p>Prepared for: Viscosity Oil Company 600-H Joliet Road, Willowbrook, IL, U.S.A., 60527 Telephone: 001-630-850-4000 http://www.viscosityoil.com Please direct all enquiries to Viscosity Oil.</p>	
<p>Prepared by: ICC The Compliance Center Inc. http://www.thecompliancecenter.com</p>	

DISCLAIMER OF LIABILITY



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