



1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS NUMBER: 5414

MSDS DATE: April 1, 2004

PRODUCT NAME: ULTRA HYDRAULIK AW OIL

TRANSPORTATION EMERGENCIES: CALL CANUTEC AT (613) 996-6666 (Canada)

Ontario Regional Poison Information Center
 1-800-267-1373 (Ottawa)
 1-800-268-9017 (Toronto)

Quebec Poison Control Center
 1-800-463-5060

New Brunswick Poison Information Center
 (506) 857-5555

Nova Scotia / PEI Poison Control Center:
 1-800-565-8161

Newfoundland Poison Control Center
 (709) 722-1110

MSDS ASSISTANCE: 1-888-871-4404

SUPPLIERS'S NAME/ADDRESS:

ULTRAMAR LTD
 2200 McGill College
 Montreal, Quebec H3A 3L3
 (514) 499-6111

CHEMICAL NAME: Petroleum oil, heavy paraffinic

CAS NUMBER: 64742-65-0

SYNONYMS/Common Names: This Material Safety Data Sheet applies to the following product descriptions for Hazard Communication purposes only. Technical specifications vary greatly depending on the product and are not reflected in this document. Consult specification sheets for technical information.

ULTRA HYDRAULIK AW OIL GRADES: 10, 22, 32, 46, 68, 100, 150

2. COMPOSITION, INFORMATION ON INGREDIENTS

PRODUCT USE: This product is intended for use as a hydraulic lubricant, or for use in engineered processes. Use in other applications may result in higher exposures and require additional controls, such as local exhaust ventilation and personal protective equipment.

DESCRIPTION: This product is a mixture of a single or multiple lubricating oil base stocks, and may include performance additives such as detergents, rust and oxidation inhibitors, pour point depressants, viscosity improvers, and anti-foaming agents. Composition varies greatly and includes C20 and heavier hydrocarbons with a boiling range above 315 °C. The following is a non-exhaustive list of common components, typical percentage ranges in product, and occupational exposure limits for each. Functional and performance additives may also be present at concentrations below reporting thresholds.

Component or Material Name	%	CAS Number	ACGIH Limits			OSHA Exposure Limits			
			TLV	STEL	Units	PEL	STEL	C/P	Units
Petroleum Oil*	>90	mixture	5	10	mg/m3	5	NA	NA	mg/m3
Performance additives	<10	mixture	NA	NA	NA	NA	NA	NA	NA

*Contains one or more of the following: Solvent dewaxed distillate, heavy paraffinic (64742-65-0), Solvent dewaxed residual oil (64742-62-7). TLV is for Oil mists by methods that do not collect vapor.

Basis for LD ₅₀ and LC50 values	LD ₅₀ value	Species & route	LC ₅₀ Value	Species and route
Mixture	> 5 g/kg	Rat by dermal		
Mixture	> 4.4 g/kg	Rabbit by oral		

3. HAZARDS IDENTIFICATION

HEALTH HAZARD DATA:

1. Heavy paraffin petroleum oils such as this product, are of low toxicity by inhalation, ingestion and dermal exposure routes. The most relevant exposure occurs through skin contact, which may result in dermatitis (irritation, cracking, dry skin) including folliculitis and oil acne with prolonged or repeated contact, and poor hygiene. Wash with soap and water after contact. Prolonged contact with used motor oil has caused skin cancer in laboratory animals. Avoid contact with used motor oils and wash skin thoroughly with soap and water afterwards.
2. In applications where mists or vapors are generated, inhalation exposure may be significant and result in respiratory irritation, nausea, and headache. Long term intensive exposure to oil mists may cause benign lung fibrosis. Control exposures through use of process enclosure, exhaust ventilation, and respiratory protection. Performance of industrial hygiene exposure monitoring is recommended where mists are generated, or heated product is used.
3. Accidental ingestion may result in irritation of the digestive tract, nausea, vomiting, upset stomach, diarrhea, gastric disturbances, and abdominal pain. Avoid eating and drinking in areas where product is in use. See MSDS Section 4 for emergency first aid responses.

HAZARDS OF COMBUSTION PRODUCTS: Carbon monoxide and carbon dioxide can be found in the combustion products of this product and other forms of hydrocarbon combustion. Carbon monoxide in moderate concentrations can cause symptoms of headache, nausea, vomiting, increased cardiac output, and confusion. Exposure to higher concentrations of carbon monoxide can cause loss of consciousness, heart damage, brain damage, and/or death. Exposure to high concentrations of carbon dioxide can cause simple asphyxiation by displacing available oxygen. Combustion of this and other similar materials should only be carried out in well ventilated areas. Combustion products may include toxic oxides of sulfur, zinc, and phosphorous in trace quantities due to presence of additives.

MEDICAL CONDITION GENERALLY AGGRAVATED BY EXPOSURE: Medical conditions which have the same symptoms and effects as those outlined under the health hazard information section can be aggravated by exposure to this product.

MEDICAL LIMITATION: N/A

CARCINOGENICITY STATEMENT: This product is manufactured from severely refined petroleum base oils, which are not classified as carcinogens by IARC, NTP or OSHA.

MUTAGENICITY/TERATOGENICITY/ REPRODUCTIVE TOXICITY INFORMATION

Mutagenicity: Has no known effects

Teratogenicity: Has no known effects

Reproductive Toxicity: Has no known effects

4. FIRST AID MEASURES

EYES: Immediately flush eyes with large amount of water for at least 15 minutes holding lids apart to ensure flushing of the entire eye surface. **SEEK MEDICAL ATTENTION.**

SKIN: Wash contaminated areas with plenty of soap and water. A soothing ointment may be applied to irritated skin after thoroughly cleansing. Remove contaminated clothing and footwear. **SEEK MEDICAL ATTENTION.**

INHALATION: Get person out of contaminated area to fresh air. If breathing has stopped resuscitate and administer oxygen if readily available. **SEEK MEDICAL ATTENTION IMMEDIATELY.**

INGESTION: Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep airway clear. **SEEK MEDICAL ATTENTION IMMEDIATELY.**

NOTES TO PHYSICIAN: Do not induce vomiting, use gastric lavage only. Aspiration of liquid into the lungs could result in chemical pneumonitis. Use of adrenaline is not advised. Treat symptomatically. High pressure injection under skin may have serious consequences and may require urgent treatment.

5. FIRE AND EXPLOSION DATA

FLASH POINT: >135 °C (275 °F) COC

AUTOIGNITION TEMPERATURE: > 343 °C (650 °F) (estimated)

FLAMMABLE LIMITS IN AIR: UEL: NA
LEL: NA

EXTINGUISHING MEDIA: Use dry chemical, carbon dioxide, foam or water spray. Water may cause frothing, but water should be used to keep fire-exposed containers cool

SPECIAL FIRE FIGHTING PROCEDURES: Pressure-demand, self contained, breathing apparatus should be provided for fire fighters in buildings or confined areas where product is stored.

UNUSUAL FIRE AND EXPLOSION HAZARD: N/A

SENSITIVITY TO IMPACT AND ACCUMULATION OF STATIC CHARGE: None

6. ACCIDENTAL RELEASE MEASURES

If material is spilled, steps should be taken to contain liquid and prevent discharges to streams or sewer systems. Spills or releases should be reported, if required to the appropriate local, provincial and federal regulatory agencies.

SMALL SPILLS: Remove ignition sources. Absorb spilled material with non-combustible materials such as cat litter, dirt, sand, or petroleum sorbent pads/pillows. Do not use combustible materials like rags, wood chips, or saw dust. Remove contaminated materials to an appropriate disposal container.

LARGE SPILLS: Remove ignition sources. Dike spill area with sand or dirt to contain material and cover sewers/drains. Remove liquid using grounded suction pumps and hoses to suitable storage tank.

7. HANDLING AND STORAGE INFORMATION

Store only in approved containers. Protect containers against physical damage. Outside or detached storage is preferred. Separate from oxidizing materials. Store in cool, well ventilated area of non-combustible construction away from possible sources of ignition. Keep from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION REQUIREMENTS: Work in well ventilated areas; use good engineering to process, transfer and store; special ventilation is not required unless mist is produced or product is heated.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: Respirator use is regulated by the Canadian Standards Association Z-94.4-93 and OSHA Respiratory Protection Standard (29 CFR 1910.134) . Respiratory protection is not required unless product is sprayed or heated. Use NIOSH certified respiratory protection where spray, mists, vapors may be generated;

following manufacturer's recommendations for mineral oil mists. Supplied air respiratory protection is required for IDLH areas.

EYE: Face shield and goggles or chemical goggles should be worn where mist or spray may be generated.

GLOVES: Impermeable protective gloves such as nitrile gloves should be worn during routine handling of this product.

OTHER CLOTHING AND EQUIPMENT: Clothing contaminated with this product should be removed, washed in soap and water and dried before reuse. Shoes, which have been contaminated with this product and can not be decontaminated should be discarded. Eyewash facilities are recommended.

EXPOSURE MONITORING

BIOLOGICAL: No applicable procedure.

PERSONAL/AREA: Monitor for mineral oil mists using pre-weighed PVC filters and calibrated sampling pumps, in accordance with NIOSH Method 5026 or OSHA ID 128.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear to light brown liquid with mild petroleum odor

BOILING RANGE @ 760 mm Hg: > 315 ° C (596° F) (estimated)

VAPOR PRESSURE: <0.1 mmHg @ 20 ° C

pH: NA

VAPOR DENSITY (Air=1): >1

SOLUBILITY IN H₂O % BY WT.: Insoluble

VISCOSITY: 63-69 CST @ 100° C

FREEZING POINT: N/A

SPECIFIC GRAVITY (H₂O=1): 0.85

% VOLATILES BY VOL.: <1

PARTITION COEFFICIENT: N/A

EVAPORATION RATE: N/A

BULK DENSITY AT 15° C: 890 KG/M3

MOLECULAR WEIGHT: N/A

10. STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY: Under normal conditions, the material is stable. Avoid sources of ignition such as flames, hot surfaces, sparks, and electrical equipment.

INCOMPATIBILITY: Avoid contact with strong oxidizers such as chlorine, fluorine, nitrogen tetroxide, concentrated oxygen, and sodium hypochlorite or other hypochlorites.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products may include carbon monoxide, carbon dioxide, oxides of sulfur and nitrogen, zinc, and other toxic gases.

HAZARDOUS POLYMERIZATION: Material is not known to polymerize.

11. TOXICOLOGICAL INFORMATION

For further information, contact MSDS Assistance.

12. ECOLOGICAL INFORMATION

For further information, contact MSDS Assistance.

13. DISPOSAL CONSIDERATIONS

Shipment, storage, disposal, and cleanup actions of waste materials are regulated under local, provincial, and federal rules. Contact the appropriate agencies if uncertain of applicability. Used motor oil must be properly disposed of at oil collection centers or licensed disposal facilities. For general discharge guidance use 15 mg/L for total oil and grease.

14. TRANSPORT INFORMATION

TDG PROPER SHIPPING NAME	Not a TDG Regulated Material
TDG HAZARD CLASS	NA
PACKING GROUP	NA
TDG I.D. NUMBER	NA

15. REGULATORY INFORMATION

WHMIS: Not a controlled substance. This product and its components are listed in the Domestic Substances List as required under the Canadian Environmental Protection Act.
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

16. OTHER INFORMATION

MSDS Prepared By:
Ultramar Ltd

NFPA (National Fire Protection Association) Hazard Ratings Codes*

Fire	Health	Reactivity	Other
1	0	0	

*Based on "Standard System for the Identification of the Fire Hazards of Materials, NFPA No. 704 M

This Material Safety Data Sheet was prepared by Ultramar Ltd in accordance with SOR/88-66. All information, recommendations and suggestions appearing herein concerning this product are based upon tests and data believed to be reliable, however, it is the user's responsibility to determine the safety, toxicity and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee expressed or implied is made by Ultramar Ltd as to the effects of such use, the results to be obtained or the safety and toxicity of the product nor does Ultramar Ltd assume any liability arising out of use by others of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or Desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

Definitions of Material Safety Data Sheet Terminology

GOVERNMENT AGENCIES AND PRIVATE ASSOCIATIONS

ACGIH - American Conference of Governmental Industrial Hygienists, (private association)
CSA - Canadian Standards Association
IARC - International Agency for Research on Cancer, (private association)
NFPA - National Fire Protection Association, (private association)
NIOSH - National Institute of Occupational Safety and Health, U.S. Department of Health and Human Services
NTP - National Toxicology Program, (private association)
OSHA - Occupational Safety and Health Administration, U.S. Department of Labor
TDG - Canadian Regulations for the Transportation of Dangerous Goods
WHMIS - Workplace Hazardous Material Information System

HAZARD AND EXPOSURE INFORMATION

Acute Hazard - An adverse health effect which occurs rapidly as a result of short term exposure.
CAS # - American Chemical Society's Chemical Abstract service registry number which identifies the product and/or ingredients.
Ceiling - The concentration that should not be exceeded during any part of the working exposure.
Chronic Hazard - An adverse health effect which generally occurs as a result of long term exposure or short term exposure with delayed health effects and is of long duration
Fire Hazard - A material that poses a physical hazard by being flammable, combustible, pyrophoric or an oxidizer as defined by 29 CFR 1910.1200
Hazard Class - DOT hazard classification
Hazardous Ingredients - Names of ingredients which have been identified as health hazards
IDLH - Immediately Dangerous to Life and Health, the airborne concentration below which a person can escape without respiratory protection and exposure up to 30 minutes, and not suffer debilitating or irreversible health effects. Established by NIOSH.
mg/m³ - Milligrams of contaminant per cubic meter of air, a mass to volume ratio
N/A - Not available or no relevant information found
NA - Not applicable
PEL - OSHA permissible exposure limit; an action level of one half this value may be applicable
ppm - Part per million (one volume of vapor or gas in one million volumes of air)
Pressure Hazard - A material that poses a physical hazard due to the potential of a sudden release of pressure such as explosive or a compressed gas as defined by 29 CFR 1910.1200
Reactive Hazard - A material that poses a physical hazard due to the potential to become unstable reactive, water reactive or that is an organic peroxide as defined by 29 CFR 1910.1200.
STEL - The ACGIH Short-Term Exposure Limit, a 15-minute Time-Weighted Average exposure which should not be exceeded at any time during a workday, even if the 8-hour TWA is less than the TLV.
TLV - ACGIH Threshold Limit Value, represented herein as an 8-hour TWA concentration.
8-hour TWA - The time weighted average concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.
W - DO NOT ADD WATER - water reactive materials may produce toxic gas, extreme heat, or chemical reaction on contact with water.
LD₅₀ - Single dose of a substance that, when administered by a defined route in an animal assay, is expected to cause the death of 50% of the defined animal population.
LC₅₀ - The concentration of a substance in air that, when administered by means of inhalation over a specified length of time in an animal assay, is expected to cause the death of 50% of a defined animal population.