

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**MATERIAL SAFETY DATA SHEET**

Renewable Lubricants, Inc.
P.O. Box 474
Hartville, Oh 44632
Phone: (330) 877-9982 - Fax: (330) 877-2266

TRADE NAME:	Bio-Ultimax Hydraulic Fluids AW 1000 (ISO 32-46-68)		
CAS NO:	Mixture.		
SYNONYMS:	None.		
GENERIC/CHEMICAL NAME:	Mixture.		
PRODUCT TYPE:	Hydraulic Oil, (Biodegradable)		
PREPARATION/REVISION DATE:	05/06/2009		
TRANSPORTATION EMERGENCY PH NO:	(CHEMTREC) 1-800-424-9300. Outside the U.S. (703) 527-3887		
NFPA CODE:	HEALTH: 0	FIRE: 1	REACTIVITY: 0
HMIS CODE:	HEALTH: 0	FIRE: 1	REACTIVITY: 0

SECTION 2 COMPOSITION / INFORMATION OF INGREDIENTS

- This material does not contain any chemical listed as a carcinogen or potential carcinogen by OSHA, IARC Monographs or National Toxicology Program.
- This material has no known hazards when used as directed.
- All components of this material are on the U.S. T.S.C.A. Inventory or are exempt.

SECTION 3 - PHYSICAL DATA

EVAPORATION RATE	
(n-Butyl Acetate=1)	Approx. 0
PERCENT VOLATILE:	0
BOILING POINT:	Not Determined
VAPOR PRESSURE:	<1
VAPOR DENSITY (Air = 1):	<1
	ISO 32 46 68
SPECIFIC GRAVITY (H ₂ O = 1):	.88 .88 .88
SOLUBILITY IN WATER:	Insoluble
APPEARANCE AND ODOR:	yellow liquid mild odor

SECTION 4 - HANDLING AND STORAGE

HANDLING PROCEDURES:	Keep containers closed when not in use. Wash thoroughly after handling.
STORAGE PROCEDURES:	Store in a cool and well ventilated place. Empty containers may retain product properties. Follow all MSDS / Label warnings after container is emptied. No special storage precautions required.
STORAGE TEMPERATURE:	Ambient
STORAGE PRESSURE:	Atmospheric

SECTION 5 - STABILITY AND REACTIVITY

STABILITY:	Material is normally stable at moderately elevated temperatures and pressures.
INCOMPATIBILITY:	Oxidizing agents.
POLYMERIZATION:	Will not occur.
THERMAL DECOMPOSITION:	Smoke, carbon monoxide, aldehydes and other products of incomplete combustion.

SECTION 6 - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE:	Contains vegetable oil base stock. OSHA PEL of 5 mg per cubic meter.
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EFFECTS OF OVEREXPOSURE: ACGIH STEL of 10 mg per cubic meter for mineral oil mists. May cause eye and skin irritation. Low order of toxicity.

SECTION 7 - EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION PROCEDURES: Use local exhaust ventilation to control mists or vapors. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits.

GLOVES PROTECTION: Use nitrile or neoprene gloves.

EYE PROTECTION: Chemical goggles or face-shield.

RESPIRATORY PROTECTION: Under normal use conditions, respirator is not usually required. Use NIOSH/MSHA approved disposable dust/mist mask if the recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

CLOTHING RECOMMENDATION: Long sleeve shirt is recommended. Wear a chemically protective apron when contact with material may occur. Launder contaminated clothing before reuse.

SECTION 8 - EMERGENCY AND FIRST AID PROCEDURES:

ORAL: DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water. Get immediate medical attention.

EYE: Flush with water at least 15 minutes. Get medical attention if eye irritation develops or persists.

SKIN: Wash with soap and water. Remove contaminated clothing. Get medical attention if irritation develops. Launder contaminated clothing before reuse.

INHALATION Remove exposed person to fresh air if adverse effects are observed. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. If irritation persists, get medical attention.

ADDITIONAL: Note to physician: Treat symptomatically.

SECTION 9-- - FIRE FIGHTING MEASURES

	ISO	32	46	68
FLASH POINT (COC)		184	199	198
UPPER FLAMMABLE LIMIT:		Not Determined.		
LOWER FLAMMABLE LIMIT:		Not Determined.		
EXTINGUISHING MEDIA:		CO ₂ , dry chemical, alcohol foam. Water can be used to cool and protect exposed material.		
SPECIAL FIRE-FIGHTING PROCEDURES:		Recommend wearing self-contained breathing apparatus. Water may cause splattering. Material will float on water.		

SECTION 10 - SPILLS OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED:
Prevent entry into sewers and waterways. Pick up free liquid for recycle/disposal. Absorb small amounts on inert material for disposal.

WASTE DISPOSAL METHOD: This material is non-hazardous for disposal under RCRA. Disposal should be in compliance with federal, state and local laws.

SECTION 11 - TOXICOLOGICAL INFORMATION

Carcinogenicity IARC Not Listed. OSHA Not Regulated. NTP Not Listed. No Component of this product at levels greater than 0.1 % is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC) or the European Commission (EC).

Reproductive toxicity This product contains no chemicals known to cause cancer, birth defects or other reproductive harm. This material does not contain any chemical listed as a carcinogen or potential carcinogen by OSHA, IARC Monographs or National

	Toxicology Program.
Health warnings	INHALATION. Oil mist can irritate airways and lungs. SKIN CONTACT. Prolonged or repeated contact may lead to irritated skin. EYE CONTACT. Irritating to eyes. INGESTION. Could cause Stomach ache or vomiting.
Route of entry	Inhalation. Skin and/or eye contact. Ingestion.

SECTION 12 –ECOLOGICAL INFORMATION

Ultimate Biodegradation Pw1 >60% within 28 days in ASTM D-5864 Aerobic Aquatic Biodegradation of Lubricants.
Aquatic Toxicity: LC50 is greater than 1000 ppm.

SECTION 13 –DISPOSAL INFORMATION

Recycle if possible. Do not reuse containers. Dispose of in accordance with all Federal, State, and Local regulations regarding pollution and waste disposal. Product as supplied contains no listed hazardous waste. It also does not meet the definition for an unspecified corrosive or ignitable waste.

SECTION 14 –TRANSPORTATION INFORMATION

	ROAD TRANSPORT (ADR):
UN NO. Road	N/A
DOT Classification	Not regulated by DOT
ADR class	Not dangerous according to ADR.
	SEA TRANSPORT (IMDG):
Sea transport notes	Not regulated per IMDG.
	AIR TRANSPORT (IATA/ICAO):
Air transport notes	Not regulated per IATA.

SECTION 15 –REGULATORY INFORMATION

	HAZARD LABELLING:
Label for supply	EM No label required NL No label required
Risk phrases	Not classified in the Annex I of Directive 67/548/EEC. No R-phrases required
Safety phrases	Not classified. No safety phrases given.

Global Chemical Inventories-

USA	All components of this material are on the US TSCA Inventory or are exempt.
EU	All components are in compliance with the EC Seventh amendment Directive 92 /32/EEC.
Japan	All components are in compliance with the Chemical Substances Control Law of Japan.
Australia	All components are in compliance with chemical notification requirements in Australia.
Canada	All components are in compliance with the Canadian Environmental Protection Act and are
Switzerland	All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.
China	All components of this product are listed on the Inventory of Existing Chemical Substances in China
Korea	All components are in compliance in Korea.
Philippines	All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).
TSCA:	All ingredients in this product are listed or exempt from listing on the TSCA Chemical inventory.

CEPA: All ingredients in this product are listed or exempt from listing on the Canadian DSL/NDSL.
Proposition 65: This product contains no chemicals know to the state of California to cause cancer, birth defects of other reproductive harm.

SARA313: This product contains no toxic chemicals subject to the requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR372)

STATE RIGHT-TO-KNOW: No listing for the following : CA Prop 65,FL, MA, MI, MN, NJ, PA, RI.

CERCLA RQ's: NONE

FEDERAL REGULATIONS:

SEC. 302 / 304 REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE: **NONE**

SEC. 302 THRESHOLD PLANNING QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE: **NONE**

SEC. 311 / 312 HAZARD CATEGORIES: **NONE**

SEC. 313 AND 40 CFR 372 TOXIC CHEMICAL REPORTABLE INGREDIENTS: **NONE**

HMIS RATING: HEALTH=1 FLAMMABILITY=1 REACTIVITY=0 PP=B

WHMIS RATING: (Canada) NOT a WHMIS controlled material

SECTION 16 –OTHER INFORMATION

NA=Not Available or Not Applicable

NE=Not Established

MSDS Issue Date: 05/06/2009 Validated by: William W. Garmier

Read and follow all label directions and precautions before using the product. **KEEP OUT OF THE REACH OF CHILDREN.** Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State, and Local Laws and regulations.

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Renewable Lubricants, Inc. knowledge; however, Renewable Lubricants, Inc. makes no warranty whatsoever, expressed or implied, of **MERCHANTABILITY OF FITNESS FOR THE PARTICULAR PURPOSE**, regarding the accuracy of such data or the results to be obtained from the use thereof. Renewable Lubricants Inc. assumes no responsibility for injury to recipient or to third persons or for any damage to any property and recipient assumes all such risks.