MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT & COMPANY INFORMATION

MATERIAL IDENTITY:

Product code and name: 60 ENVIRONMENTAL VACUUM OIL

Synonym: Hydraulic fluid

Application: Hydraulic steam and gas turbines

Manufaturer's name and address:

VERCO INTERNATIONAL

9, rue Béland L'Isle-Verte Québec Canada G0L 1K0 Phone: 418 898-5151 Fax: 1 866 393-3922

In case of emergency:

Verco International: 1 800 393-3921

CANUTEC: 613 996-6666



SECTION 2 COMPOSITION & INGREDIENTS INFORMATION					
Name	Cas#	%v/v	Exposure limits (ACCH)		
Mixture of base oil and non-hazardous additives	Mixture	100	TLV-TWA (8H) 5 mg/m ³ (oil mist)	STEL 10 mg/m³ (oil mist)	CEILING Non available

SECTION 3 HAZARDS IDENTIFICATION

For normal application this product is not considered hazardous.

<u>Potential health Effects:</u> Non irritating to slight transient irritation to skin and eyes, but no permanent damage. Relatively non-toxic via ingestion. This product has a low vapour pressure and is not expected to present an inhalation exposure at ambient conditions. Upon heating to high temperatures, or mechanical actions which may produce vapours or mists, inhalation of product may cause irritation of the breathing passages. For more information, refer to section 11.

SECTION 4 FIRST AID MEASURES

Eye contact: Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.

Skin contact: Remove contaminated clothing – launder before reuse. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Seek medical attention.

<u>Inhalation:</u> Evacuate the victim to a safe area as soon as possible. If the victim is not breathing, perform artificial respiration. Allow the victim to rest in a well ventilated area. Seek medical attention.

<u>Ingestion:</u> Do not induce vomiting because of danger of aspirating liquid into lungs. Seek medical attention.

SECTION 5 FIRE-FIGHTING MEASURES

Extinction agents: Shut off fuel to fire if it is possible to do so without hazard. Use dry chemicals, foam, water spray, CO_2 or a portable fire extinguisher.

Special measures in case on fire: Small fire: use dry chemicals, foam, water spray or CO₂. Large fire: Isolate for 800 meters in all directions. Shut off fuel to fire if it is possible to do so without hazard. If this is impossible, withdraw from area and let fire burn out under controlled conditions. Withdraw immediately in case of rising sound from venting safety device or any discolouration of tank due to fire. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Notify the appropriate authorities immediately.

<u>Special protective equipment:</u> Respiratory and eye protection are required for fire fighting personnel.

Flammability: May be combustible at high temperature.

Flash point: 248 °C

<u>Fire hazards in presence of other substances:</u> Low fire hazard. This material must be heated before ignition will occur.

Explosion hazards in presence of various substances: Containers may explode in heat of fire. Do not cut, weld heat, drill or pressurize empty container.

Products of combustion: Carbon oxides (CO, CO₂), nitrogen oxides (NOx), sulphur oxides (SOx), phosphorus compounds (Pox), silicon oxides (SiOx), smoke and irritating vapours as products of incomplete combustion.

<u>Danger identification:</u> Carbon oxides (CO, CO₂), nitrogen oxides (NOx), sulphur oxides (SOx), smoke and irritating vapours.

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

<u>Procedures in case of spill:</u> Eliminate all ignition sources. Avoid contact. Stop leak if without risk. Contain spill. Absorb with inert absorbents, dry clay, or diatomaceous earth. Avoid inhaling dust of diatomaceous earth for it may contain silica in very fine particle size, making this a potential respiratory hazard. Place used absorbent in closed metal containers for later disposal or burn absorbent in a suitable combustion chamber. Do not flush to sewers, streams or other bodies of water. Check with applicable jurisdiction for specific disposal requirements of spilled material and empty containers. Notify the appropriate authorities immediately.

Spill on earth: Contain spilled liquid with sand or earth. Recover by pumping or by using a suitable absorbent. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulation. Notify the appropriate authorities immediately.

Spill in water: Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters. Notify the appropriate authorities immediately.

<u>Precaution measures for the environment:</u> Do not leave this product or the water used to fight a fire where this product is present enter sewage systems, lakes, rivers or other drinkable water sources. Provincial and federal regulations may demand that environment protection or other agencies must be warned in case of a spill. Polluted area must be cleaned to his original state and authority's satisfaction.

SECTION 7 HANDLING AND STORAGE

<u>Handling:</u> Avoid inhalation and skin contact especially when handling used oil. Keep away from sources of ignition. Do not reuse empty containers without commercial cleaning or reconditioning. Practice good personal hygiene. Wash hand after handling and before eating. Launder work clothes frequently. Discard saturated leather goods.

Storage: Store in tightly closed containers in cool, dry isolated, well ventilated area, and away from incompatibles.

SECTION 8 EXPOSURE CONTROL & PERSONNAL PROTECTION

Exposure limits at work: Oil mist (mineral): none

CMA/moderate exposure: 5 mg/m³ ACGIH CMA/short exposure: 10mg/m³ ACGIH

<u>Ventilation</u>: Maintain product air concentration under exposure limit in the work place. In presence of oil mist or in the case of the exposure limit being exceeded, local ventilation is recommended. Air exchange (general or local) must be provided to replace rejected air.

Eyes: Eye protection (i.e., safety glasses, safety goggles and/or face shield) should be determined based on conditions of use. If product is used in an application where splashing may occur, the use of safety goggles and/or a face shield should be considered.

<u>Body:</u> Wear appropriate clothing to prevent skin contact. As a minimum long sleeves and trousers should be worn.

<u>Respiratory:</u> Where concentrations in air may exceed the occupational exposure limits given in Section 2 (and those applicable to your area) and where engineering, work practices or other means of exposure reduction are not adequate, NIOSH approved respirators may be necessary to prevent overexposure by inhalation.

<u>Hands:</u> Wear appropriate chemically protective gloves. When handling hot product ensure gloves are heat resistant and insulated.

<u>Feet:</u> Wear appropriate footwear to prevent product from coming in contact with feet and skin.

SECTION 9 PHYSICAL & CHEMICAL PROPERTIES

Physical State and appearance: Viscous liquid

Colour: Colorless
Odour: Odorless
Flash point: 248 °C
Pour point: - 24 °C
Viscosity @ 40°C: 60

<u>Viscosity @ 100°C:</u> Not available <u>Vapour density:</u> Not available

Vapour pressure: Negligible at ambient temperature and pressure

Volatility: Non-volatile

Inflammability: This material must be heated before ignition will occur.

***For more information, refer to the Technical data sheet.

SECTION 10 STABILITY & REACTIVITY

Stability: The product is stable under normal handling and storage conditions.

Incompatible substances: Reactive with oxidizing agents and acids.

Hazardous polymerization: Will not occur under normal working conditions.

<u>Decomposition products:</u> May release COx, SOx, H₂S, POx, CaOx ZnOx, methacrylate monomers, alkyl mercaptans, aldehydes, smoke and irritating vapours when heated to decomposition.

SECTION 11 TOXICOLOGICAL INFORMATION

TOXICITY AIGÜE

Routes of entry: Skin contact, eye contact, inhalation and ingestion

Acute lethality: Based on toxicity of components

Acute oral toxicity (LD50): >5000 mg/kg (rat)
Acute dermal toxicity (LD50): >2000 mg/kg (rabbit)
Acute Inhalation toxicity (LC50): >2500 mg/m³/4h (rat)

CHRONIC OR OTHER TOXIC EFFECTS:

<u>Dermal route:</u> Prolonged or repeated contact may cause skin irritation characterized by dermatitis or oil acne.

<u>Inhalation route:</u> Negligible breathing hazard at normal temperatures (up to 38°C) or recommended blending temperatures. Elevated temperatures or mechanical action may form vapours, mists or fumes. Inhalation of oil mists or vapours from hot oil may cause irritation of the upper respiratory tract.

Oral route: Low toxicity: has laxative effect.

Eyes irritation/inflammation: Repeated or prolonged contact may cause transient irritation, but no permanent damage.

<u>Skin sensitization:</u> This product is not expected to be a skin sensitizer, based on the available data and the known hazards of the components.

Respiratory tract sensitization: This product is not expected to be a respiratory tract sensitizer, based on the available data and the known hazards of the components.

Mutagenic effects: not available

Respiratory toxicity: This product is not expected to be a skin sensitizer, based on the available data and the known hazards of the components.

<u>Teratogenicity/Embryogenicity:</u> This product is not expected to be a teratogen or an embryotoxin, based on the available data and the known hazards of the components.

CARCINOGENICITY

(ACGIH): This product is not known to contain any chemicals at reportable quantities that are listed as A1 or A2 carcinogens by ACGIH.

(IARC): This product is not known to contain any chemicals at reportable quantities that are listed as group 1, 2A or 2B carcinogens by IARC.

(NTP): This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by NTP.

(IRIS): This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by IRIS.

(OSHA): This product is not known to contain any chemicals at reportable quantities that are listed as carcinogens by OSHA.

SECTION 12 ECOLOGICAL INFORMATION

Environmental: Not available
Body & COD: Not available
Bioaccumulation: Not available
Biodegradation: Not available

SECTION 13 DIPOSAL CONSIDERATIONS

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drums bungs in place.

SECTION 14 TRANSPORTATION INFORMATIONS

This product is not reglemented by the Canadian regulation for the transportation of dangerous material on roads or rails.

SECTION 15 REGULATORY INFORMATION

This product is not controlled under workplace hazardous materials information system (WHMIS).

SECTION 16 OTHER INFORMATION

The information contained herein is believed to be accurate. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein. Data sheets are available for all company's products. You are urged to obtain data sheets for all the company's products you buy, process or distribute and you are encouraged and requested to advise those who may become in contact with such products of the information contained herein. To determine applicability or effect of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency. The company does not undertake to furnish advice on such matters.

Date prepared: January 1st, 2013