

MARYN INTERNATIONAL LTD. MATERIAL SAFETY DATA SHEET MARINUS TURBINE OIL PAGE 1 OF 4 REVISION 4

SECTION I- Chemical Product and Company Identification

Product Identifier:	Marinus Turbine Oil
Manufacturer:	WYS Manufacturing Ltd.
	Bay 7 & 8, 4216 – 54 th Ave. SE
	Calgary, Alberta T2C 2E3
	Canada
Supplier:	Maryn International Ltd.
	Bay 5, 4216 – 54 th Ave. SE
	Calgary, Alberta T2C 2E3
	Canada
Product use:	Used as lubricant for air, steam and hydraulic turbine
	generator bearings.
Emergency Phone Number:	
CANUTEC – 24 hr Emergency No.	1-613-996-6666
Business Hour Number	1-403-252-2239
(Monday through Friday 8:00am to 4:30pm I	MST)

SECTION II Composition/ Information on Ingredients

Hazardous Ingredients	Concentration %	C.A.S. #	Exposure limit	LD ₅₀ (Species/Route)	LC ₅₀ (Species/Route)
None Applicable					

SECTION III Hazards Identification

Emergency Overview	No hazards under normal conditions of use.
Potential Health Effects	
Route of entry	Skin and eye contact are the primary routes of exposure to this product.
Ingestion	No significant hazard. Minimal toxicity. Ingestion of large amounts may cause intestinal blockage or gastric distress. If drawn into lungs from swallowing or vomiting, may cause bronchopneumonia or pulmonary edema.
Inhalation	No inhalation dangers at room temperature as there are no vapours. If product is misted or at an elevated temperature, high concentration of vapour and/or mist may cause irritation to the respiratory tract, experienced as nasal discomfort and discharge.
Skin Contact	Frequent or prolonged contact may irritate the skin and cause a skin rash.
Eye Contact	Slight irritation to the eyes but will not cause injury to the eye tissue.
Effects of Chronic Exposure	Repeated exposure over prolonged periods of time may cause irritation to the skin, respiratory system and eyes. Follow good industrial hygiene practices to avoid exposure.
Effects of Acute Exposure	Breathing mist caused by high temperature or swallowing large quantities may be irritating to skin, respiratory system, mucous membranes and eyes.
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SECTION IV First Aid Measures

Ingestion	Do not induce vomiting. Call physician immediately. If the victim is conscious they
	can be given two glasses of water, a little at a time.
Skin Contact	Wash well with soap and water. Launder clothes prior to re-use.
Inhalation	If excessive fumes, remove victim to fresh air. If no relief is obtained, consult physician.



MARYN INTERNATIONAL LTD. MATERIAL SAFETY DATA SHEET MARINUS TURBINE OIL PAGE 2 OF 4 REVISION 4

Eye Contact

Notes to Physician

Flush with clean tepid water for 15 minutes keeping eyelids open. If irritation persists, consult physician. Not available.

SECTION V Fire-Fighting Measures

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Flammability	Non flammable at ambient temperature. Liquid may burn at temperatures above flash point if exposed to an open flame.
Means of Extinction	Carbon dioxide foam, dry chemicals. Water spray is an unsuitable extinguishing agent. Keep containers cool with water spray. When fighting fire, treat as petroleum product, wear full protective clothing, including NIOSH approved self-contained
Flash Point (ASTM D92)	breathing apparatus. Avoid spreading with water flooding. >250°C (482°F)
Upper Flammability Limits	Not Determined.
Lower Flammability Limits	Not Determined.
Auto Ignition Temperature	Not available.
Hazardous Combustion Products	Oxides of carbon, sulfur and dense smoke
Fire and Explosion Hazards	Combustible but not readily ignited.
Sensitivity to Static Discharge	None at normal temperatures below flash point. Do not cut, weld, or pressurize empty container. Container may explode in heat of fire.

SECTION VI Accidental Release Measures

Personal Protection	Wear suitable protective equipment. Eliminate sources and or potential sources of ignition. Ensure adequate ventilation.
Environmental Precautions	Product has very low solubility in water. Do not flush to sewers, streams
	or other bodies of water. For disposal, see Section XIII.
Methods for cleaning up	Absorb on inert material such as sand, earth, vermiculite. Sweep up and
interious for creating up	collect in a suitable container for disposal. Observe government
	regulations.
Large spills	Stop leak if without risk. Dike to contain spill.
	Pump excess material into suitable container (metal drums, metal tanks, or such).

SECTION VII Handling and Storage

Handling	Avoid excess heat, formation of oil mist, breathing vapours and mist from hot oil, and
	prolonged or repeated contact with skin or eyes. After handling, always wash hands
	thoroughly. Ensure eyewash and safety shower are easily accessible to the work area.
Storage	Store in a cool well ventilated area. Keep container tightly closed and away from heat spark and open flame.

SECTION VIII Exposure Controls / Personal Protection

Exposure Limits

Component	Value	Туре	Remark		
Mineral Oil Mist	$\frac{5 \text{ mg/m}^3}{10 \text{ mg/m}^3}$	TWA (mist) ACGIH STEL(mist) ACGIH	If used in a way that generates a mist, observe the limits for mineral oil mist		
Engineering Controls		For normal application, special ventilation is not necessary. If user's operation			
Respiratory Protection	generates mist or requires heating of the product, use ventilation to keep exposure to airborne contaminants below exposure limits. Make up air should always be supplied to balance air removed by exhaust ventilation. Use approved respirator with dual organic vapor / mist and particulate cartridge if vapor concentration exceeds permissible exposure limit. Use Self-Contained Breathing Apparatus in high vapour concentrations.				



MARYN INTERNATIONAL LTD. MATERIAL SAFETY DATA SHEET MARINUS TURBINE OIL PAGE 3 OF 4 REVISION 4

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Inhalationintestinal blockage or gastric distress. If drawn into lungs from swallowing or vomiting, may cause bronchopneumonia or pulmonary edema. No inhalation dangers at room temperature as there are no vapours. If product is misted or at an elevated temperature, high concentration of vapour and/or mist may cause irritation to the respiratory tract, experienced as nasal discomfort and discharge.Sensitization:Repeated or prolonged contact may cause sensitization in some individuals. This product contains material that has not been listed as a carcinogen or potential carcinogen by either the National Toxicology Program, International Agency for Research on Cancer, or the Occupational Safety and Health Administration.Reproductive Toxicity: Mutagenicity:No information is available and no adverse effects are anticipated. No information is available and no adverse effects are anticipated. No information is available and no adverse effects are anticipated. Using the CEC L-33-A-94 biodegradability test, the product proved greater than 98% biodegradable in 21 days.Environmental Effects: Rainbow Trout:This product's low toxicity and ready biodegradability are expected to minimize environmental impact in the event of an accidental release.Acute Lethality Rainbow Trout:0% mortality at 100% effluent at 1:10 Concentration (EPSI/RM/13)						
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SECTION XIII Disposal Consideration

RCRA 40 CFR 261 Classification Not listed



MARYN INTERNATIONAL LTD. MATERIAL SAFETY DATA SHEET MARINUS TURBINE OIL PAGE 4 OF 4 REVISION 4

US EPA Waste Number / Classification

Not available

Waste Disposal

Dispose of waste material in compliance with all federal, state, provincial and local regulations. Incinerate in a furnace or bury in an approved landfill where permitted under appropriate federal, provincial and local regulations.

SECTION XIV Transport Information

Department of Transport:	Not regulated under DOT
TDG – Canada	Not regulated under TDG.
DOT/TDG Proper Shipping Name:	None
DOT/TDG Hazard Class:	None
UN Number:	None
Packing Group:	None
DOT/TDG Labels:	Primary: None required Subsidiary: None required
DOT/TDG Placards:	None required

SECTION XV Regulatory Information

CPR Compliance: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations. **OSHA Hazard Communication Standards 29CFR 1910.1200:** This product is not known to contain any of the carcinogens required to be listed under OSHA Hazards Communication Standards 29 CFR 1910.1200. **WHMIS Classification:** Not a controlled product under WHMIS.

CERCLA: Not listed on CERCLA (40CFR 302.4). If this product is accidentally spilled, it is not subject to special reporting under requirements of the Comprehensive Environmental Response and Liability Act. We recommend you contact local authorities to determine if there may be other local reporting requirements. **SARA Title III Section 311/312:** Under the provisions of Title III, Section 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard category: **NONE.**

SARA Title III Section 313: This product does not contain more than 1 % of any of the chemical substances listed under SARA Section 313.

RCRA: Not listed on the RCRA (40 CFR 261.33) for hazardous waste.

NPRI: Not listed in the NPRI under Canadian EPA.

Chemical Inventory

Canada: United States: The ingredients of this product are on the DSL. The ingredients of this product are on the TSCA

SECTION XVI Other Information

HMIS Information

Degree of Hazard	HMIS Rating	Revision Information	L
4= Severe	Health 0	Prepared by:	Maryn Research
3= Serious			Phone: 1-403-252-2239
2= Moderate	Flammability 1	Effective Date:	January 5, 2011
1= Slight		Supersedes:	July 20, 2010
0= Minimal	Reactivity 0	Revision:	3.0

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