



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 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.

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.



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

SECTION V Fire-Fighting Measures

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 breathing apparatus. Avoid spreading with water flooding.
Flash Point (ASTM D92) >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 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	Type	Remark
Mineral Oil Mist	5 mg/m ³ 10 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 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.
Respiratory Protection 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.



Eye Protection	Use chemical splash goggles with side shields if risk of splashing present.
Skin Protection	Use rubber or plastic apron.
Hand Protection	Use oil resistant gloves.

SECTION IX Physical and Chemical Properties

Physical State:	Liquid	Evaporation Rate:	<0.1
Odour:	Mild petroleum odour	Boiling Point:	Not available
Appearance:	Clear, light amber	Pour Point:	-25°C (-13°F)
Odour Threshold:	Not established	Solubility in Water:	Negligible
Specific Gravity:	0.92 (@20°C / 68°F)	pH:	Not available
Vapour Pressure:	Not available	Partitioning Coefficient:	<0.1
Vapor Density:	Not available	Kinematic viscosity at 40°C:	65 cSt (mm ² /s)

SECTION X Stability and Reactivity

Chemical Stability:	Stable
Incompatibility:	Avoid contact with oxidizing agents, reducing agents, and ignition source.
Reactivity:	No reactivity
Polymerization:	Will not occur
Decomposition Products:	Oxides of carbon, sulfur and dense smoke.

SECTION XI Toxicological Information

Irritancy / Route of Entry:

Skin Contact	Frequent or prolonged contact may irritate the skin and cause a skin rash.
Skin Absorption	No evidence of adverse effects from available information. Prolonged contact may cause mild irritation.
Eye Contact	Slight irritation to eyes, but will not injure eye tissue.
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.

Sensitization: Repeated or prolonged contact may cause sensitization in some individuals.

Carcinogenicity: 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: No information is available and no adverse effects are anticipated.

Teratogenicity: No information is available and no adverse effects are anticipated.

Mutagenicity: No information is available and no adverse effects are anticipated.

SECTION XII Ecological information

Environmental Fate: This product is insoluble in water and expected to be readily biodegradable. Using the CEC L-33-A-94 biodegradability test, the product proved greater than 98% biodegradable in 21 days.

Environmental Effects: 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)

SECTION XIII Disposal Consideration

RCRA 40 CFR 261 Classification

Not listed



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

SECTION XVI Other Information

HMIS Information

Degree of Hazard	HMIS Rating
4= Severe	Health 0
3= Serious	Flammability 1
2= Moderate	Reactivity 0
1= Slight	
0= Minimal	

Revision Information

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