



SECTION I: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: **Marinus Valve Actuator Oil**
Product use: Used as Valve Actuator Oil.
Manufacturer: WYS Manufacturing Ltd.
Bay 7 & 8, 4216 – 54th Ave. SE
Calgary, Alberta T2C 2E3
Phone 1-403-252-2239
Canada

Supplier: Maryn International Ltd.
Bay 5 & 6, 4216 – 54th Ave. SE
Calgary, Alberta T2C 2E3
Phone 1-403-252-2239
Canada

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)

MSDS Prepared By Z. Ansarizadeh
Phone 1-403-252-2239

Date Prepared September 16, 2008

SECTION II: COMPOSITION/ INFORMATION ON INGREDIENTS

Hazardous Ingredients	Concentration %	C.A.S. #	LD₅₀ (Species/Route)	LC₅₀ (Species/Route)
None Applicable	NA	NA	NA	NA

NA: Not Available

SECTION III: Hazards Identification

Emergency Overview No hazards under normal conditions of use.

Route of entry Skin and eye contact, inhalation and ingestion are the primary routes of exposure to this product.

Ingestion No significant hazard. Minimal toxicity. Ingestion of large amounts may cause laxative effects, or intestinal blockage . 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 at elevated temperature, high concentration of vapour and/or mist may cause irritation, experienced as nasal discomfort and discharge.
Skin Contact and absorption	Not expected to cause more than slight skin irritation. Frequent or prolonged contact may irritate the skin and cause a skin rash, defatting, drying, and dermatitis.
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. Have victim drink 240 to 300 mL of water. Do not give anything by mouth if victim is rapidly losing consciousness, is unconscious, or convulsing. Call physician immediately.
Skin Contact	Wash well with soap and water (at least 5 minutes). Launder clothes prior to re-use.
Inhalation	Remove source of contamination. 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	This product contains materials that may be harmful if aspirated. If ingestion has occurred less than 2 hours earlier, carry out careful gastric lavage; use endotracheal cuff if available, to prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Give artificial resuscitation and appropriate chemotherapy if respiration is depressed.

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. 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)	200°C (392°F)
Upper Flammability Limits	Not Determined.
Lower Flammability Limits	Not Determined.
Auto Ignition Temperature	350°C (662°F)



Hazardous Combustion Products Oxides of carbon and nitrogen, and dense smoke.
Fire and Explosion Hazards None
Sensitivity to impact None at normal temperatures below flash point. Do not cut, weld, or pressurize empty container.
Static Discharge 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.
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
Storage Store in a cool, dry, well ventilated area. Keep container tightly closed and away from heat, spark and open flame.

SECTION VIII: Exposure Controls / Personal Protection

Exposure Limits

If used in a way that generates a mist, observe the limits for mineral oil mist

Component	Exposure Limit (ACGIH)	Exposure Limit (OSHA)	Immediately Dangerous to Life and Health (IDLH)
Mineral Oil Mist	5 mg/m ³ TWA-TLV 10 mg/m ³ STEL-TLV	5 mg/m ³ TWA-PEL Not Established STEL-PEL	2500 mg/m ³

Engineering Controls For normal application, special ventilation is not necessary. If user's operation generates mist, 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. Ensure that eyewash station and safety shower are close to workstation.



- Respiratory Protection** Use approved respirator with dual organic vapour / mist and particulate cartridge if vapour concentration exceeds permissible exposure limit. A NIOSH-approved positive-pressure, air-supplied respirator or self-contained breathing apparatus may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.
- Eye Protection** Use chemical splash goggles if risk of splashing present.
- Skin Protection** Use rubber or plastic apron.
- Hand Protection** Use oil resistant gloves. (Neoprene, nitrile, polyvinyl alcohol, fluoro-elastomer.)

SECTION IX: Physical and Chemical Properties

Physical State:	Liquid
Odour:	Mild petroleum odour
Appearance:	Clear, pale yellow
Odour Threshold:	Not established
Specific Gravity:	0.93 at 20°C (68°F)
Vapour Pressure:	Not available
Vapour Density:	Not available
Evaporation Rate:	Not available
Boiling Point:	415°C (780°F)
Pour Point:	<-60°C (-76°F)
Solubility in Water:	Negligible
pH:	Not available
Partitioning Coefficient:	<0.1

SECTION X: Stability and Reactivity

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

SECTION XI: Toxicological Information

Effects of Acute and Chronic Exposure:

- Skin Contact** Low toxicity and irritancy. Frequent or prolonged contact may irritate the skin. Acute exposure is expected to cause only slight irritation, if any.
- Skin Absorption** No evidence of adverse effects from available information. Prolonged contact may cause mild irritation.



- Eye Contact** May cause slight irritation to eyes, but will not injure eye tissue.
- Inhalation** No inhalation dangers at room temperature as there are no vapours. If the product is misted, high concentrations of vapours and/or mist may cause respiratory tract irritation, experienced as nasal discomfort and discharge.
- Ingestion** No significant hazard. Minimal toxicity. Ingestion of large amounts may cause laxative effects. If drawn into lungs from swallowing or vomiting, may cause chemical pneumonitis or pulmonary edema.
- Irritancy:** Slight irritation to eyes. Frequent or prolonged contact may irritate skin. If misted, inhalation of mist may cause irritation.
- Sensitization:** Repeated or prolonged contact is not expected to cause sensitization, based on available data and known hazards.
- 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.
- Embryotoxicity:** No information is available and no adverse effects are anticipated.
- Mutagenicity:** No information is available and no adverse effects are anticipated.
- Toxicologically Synergistic Products:** Not available.

SECTION XII: Ecological information

Environmental Fate:

85% biodegradable at 20°C following the CEC L33-A93 method. Biodegradability test in soil showed 97% in 28 days. In fresh water, the biodegradability was 68% in 28 days and 87% in 60 days.

Environmental Effects:

Due to its low toxicity and ready biodegradability, this product is not expected to cause significant adverse effect in the event of environmental release.

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
Product Identification 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 1*
3= Serious	Flammability 1
2= Moderate	Reactivity 0
1= Slight	
0= Minimal	
*= Chronic	

Revision Information

Prepared by: Maryn Research

Phone: 1-403-252-2239

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