



SECTION I: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: **Maryn Hydris MX(22, 32, 46, 68)**

Product use: For lubricating hydraulic systems.
If this product is used in combination with other products, refer to the Material Safety Data Sheets for those products.

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 MARYN Research
Phone 1-403-252-2239

Date Prepared 28 May, 2012

SECTION II: COMPOSITION/ INFORMATION ON INGREDIENTS

Hazardous Ingredients	Concentration %	C.A.S. #	LD50 (Species/Route)	LC50 (Species/Route)
Lubricating oils, petroleum, hydrotreated	81-99%	64742-58-1	>2000 mg/kg (Oral/Dermal Rat) >4480 mg/kg (Dermal Rabbit)	NA
Lubricating oils (petroleum), C>25,	0-16%	72623-83-7	>5000 mg/kg (Oral Rat)	NA
Residual oils (petroleum), solvent dewaxed	0-16%	64742-62-7	>5000 mg/kg (Oral Rat) >2000 mg/kg (Dermal Rabbit)	2.18 mg/L/4H (Inhalation Rat)
Residual oils (petroleum), solvent refined	0-16%	64742-01-4	>5000 mg/kg (Oral Rat) >2000 mg/kg (Dermal Rabbit)	2.18 mg/L/4H (Inhalation Rat)

NA: Not Available



SECTION III: Hazards Identification

Emergency Overview	May be harmful if swallowed. May irritate eyes and skin.
Route of entry	Skin and eye contact, inhalation, and ingestion are the primary routes of exposure to this product.
Ingestion	May be harmful if ingested. May cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.
Inhalation	This product is not likely to present an inhalation hazard at normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, high concentrations of generated vapour or mist may irritate the respiratory tract (nose, throat, and lungs).
Skin Contact and absorption	May cause irritation. A single prolonged exposure is not likely to be absorbed through the skin in harmful amounts.
Eye Contact	May cause irritation.
Effects of Chronic Exposure	Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).
Medical Conditions Aggravated By Exposure	Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of 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. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.
Skin Contact	Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists. If product is injected under pressure into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, a physician should immediately evaluate the individual as a medical emergency.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.
Eye Contact	If irritation or redness from exposure to vapour develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.
Notes to Physician	Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident.



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. Decomposition and combustion materials may be toxic. Burning may produce hydrogen sulphide, sulphur oxides, nitrogen oxides, phosphorus oxides, carbon monoxides, and unidentified organic compound.
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)	180°C (356°F)
Upper Flammability Limits	Not Determined.
Lower Flammability Limits	Not Determined.
Auto Ignition Temperature	Not Determined.
Hazardous Combustion Products	Decomposition and combustion materials may be toxic. Burning may produce hydrogen sulphide, sulphur oxides, nitrogen oxides, phosphorus oxides, carbon monoxides, and unidentified organic compound.
Fire and Explosion Hazards	Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.
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. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist.
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 Large spills	Absorb on inert material such as sand, earth, vermiculite. Sweep up and collect with a clean, spark proof tool into a suitable container for disposal. Observe government regulations. Stop leak if without risk. Dike far ahead of liquid spill for collection and later disposal. Pump excess material into suitable container (metal drums, metal tanks, or such).



SECTION VII: Handling and Storage

- Handling** Keep away from sparks or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools and explosion-proof equipment. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. These products have a low vapour pressure and are not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating these products, do not breathe vapour or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes.
- Storage** Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

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)	Exposure Limit (NIOSH)
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	5 mg/m ³ TWA-TLV 10 mg/m ³ STEL-TLV

Engineering Controls Provide general ventilation needed to maintain concentration of vapour or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

Respiratory Protection Use NIOSH-certified P- or R- series particulate filter and organic vapour cartridges when concentration of vapour or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

Eye Protection Where eye contact is likely, wear safety glasses; contact lens use is not recommended.

Skin Protection Where skin contact is likely, wear chemical impervious protective gloves; use of natural rubber or equivalent gloves is not recommended.

When product is heated and skin contact is likely, wear heat-resistant gloves, boots, and other protective clothing.

To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant face shield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

Hand Protection Use oil resistant gloves. (Nitrile)

Personal Hygiene Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard leather articles, such as shoes, saturated with this product.

Other Protective Equipment Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.



SECTION IX: Physical and Chemical Properties

Physical State:	Amber; liquid.
Odour:	Petroleum odour
Appearance:	Clear, light amber
Odour Threshold:	Not established
Specific Gravity:	0.87 (water = 1) (approximately)
Vapour Pressure:	<0.1 mm Hg at 20°C
Vapour Density:	Not available
Evaporation Rate:	Not available
Boiling Point:	>246°C (>475°F) minimum
Pour Point:	-37°C (-22°F) maximum
Flash Point:	190°C (374°F) minimum, Cleveland Open Cup
Flammable Limits Air:	Lower: Not Available; Upper: Not Available
Auto ignition Temperature:	Not Available
Solubility in Water:	Insoluble
pH:	Not available
Partitioning Coefficient:	Not available

SECTION X: Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Avoid sparks or flame when not in use.
Incompatibility:	Avoid contact with oxidizing agents, reducing agents, and/or acids.
Reactivity:	Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.
Decomposition Products:	None under normal temperatures and pressures.



SECTION XI: Toxicological Information

Effects of Acute and Chronic Exposure:

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	Irritating to eyes, but will not injure eye tissue.
Inhalation	May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin. Aspiration Hazard: Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.
Ingestion	May be harmful if swallowed. May be harmful if ingested.
Irritancy:	Irritation to eyes and respiratory tract. Frequent or prolonged contact may irritate skin. If misted, inhalation of mist may cause irritation.
Sensitization:	Based on best current information, there is no known human sensitization associated with this product.
Carcinogenicity:	Based on best current information, there is no known carcinogenicity as regulated by OSHA; as categorized by ACGIH A1 or A2 substances; as categorized by IARC Group 1, Group 2A, or Group 2B agents; or as listed by NTP as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.
Reproductive Toxicity:	Based on best current information, there is no known reproductive toxicity associated with this product.
Teratogenicity:	Based on best current information, there is no known teratogenicity associated with this product.
Mutagenicity:	Experimental evidence suggests that this product does not cause mutagenesis.

SECTION XII: Ecological information

Ecotoxicity: Component Analysis - Ecotoxicity - Aquatic Toxicity

Component	96 Hr LC50 Brachydanio rerio	96 Hr LC50 Pimephales promelas	96 Hr LC50 Lepomis macrochirus
Lubricating oils, petroleum, hydrotreated	79.6 mg/L (semi-static)	3.2 mg/L (semi-static)	N.A.
Residual oils (petroleum), solvent refined	N.A.	>5000 mg/L	N.A.
Residual oils (petroleum), solvent dewaxed	N.A.	>5000 mg/L	N.A.
Lubricating oils (petroleum), C>25, hydrotreated	N.A.	N.A.	>10000 mg/L

Persistence/Degradability:	No information available.
Bioaccumulation/Accumulation:	No information available.
Mobility in Environmental Media:	No information available.
Other Adverse Effects:	No additional information available.



Octanol/Water Partition Coefficient: Not available

Volatile Organic Compounds: Negligible

SECTION XIII: Disposal Consideration

Disposal: Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste.

SECTION XIV: Transport Information

Department Of Transport: Not regulated as a hazardous material.
TDG – Canada Not regulated as a dangerous good.
DOT/TDG Proper Shipping Name: Not regulated as a hazardous material

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.

CERCLA:

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "hazardous substances" listed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

SARA Title III Section 302/304:

Based on the ingredient(s) listed in SECTION 3, these products do not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA Title III Section 311/312:

This product poses the following health hazard(s) as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

- Immediate (Acute) Health Hazard
- Delayed (Chronic) Health Hazard

SARA Title III Section 313:

This product does not contain "toxic" chemical(s) subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

TSCA:

All the components of these products are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory

CEPA:

All the components of these products are listed on, or are automatically included as "substance occurring in nature" on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).



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

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