

SAFETY DATA SHEET

Pathfinder Lubricants Inc.

(6 pages)

SECTION 1 – Chemical Product and Company Identification

Product: RYCON-1

Product Use: Anti-wear additive for conventional petroleum based lubricating oils

Manufacturer: Pathfinder Lubricants Inc.
12118 Rowan Place, Unit 1118, Richmond, British Columbia, Canada, V6V 2S6

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SECTION 2 – Hazards Identification

Classification: Aspiration hazard – category 1
Skin sensitization – category 1
Acute toxicity, oral – category 4



Signal word: Danger

Hazard statements: H302 Harmful if swallowed
H304 May be fatal if swallowed and enters airways
H317 May cause an allergic skin reaction

Precautionary statements:

Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P264 Wash ... thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P272 Contaminated work clothing should not be allowed out of the work place
P280 Wear protective gloves/protective clothing/eye protection/face protection

Response:

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell

P302+P352 IF ON SKIN: Wash with plenty of water/...

P321 Specific treatment (see ... on this label)

P331 Do NOT induce vomiting

P333+313 If skin irritation or rash occurs: Get medical advice/attention

P363 Wash contaminated clothing before reuse

Storage:

P405 Store locked up

Disposal:

P501 Dispose of contents/container in accordance with local, regional and national regulations

SECTION 2 – Composition/Information on Ingredients

This material is defined as a mixture.

Hazardous substances or complex substances in product.

Ingredients	CAS#	%	GHS Hazard Codes
Distillates (Petroleum), Hydrotreated Light	64742-53-6	20%-30%	H304
Distillates (Petroleum), Hydrotreated Light Paraffinic	64742-55-8	3%-5%	H304
Distillates (Petroleum), Solvent-Dewaxed Light Paraffinic	64742-56-9	3%-5%	H304
Tertiary alkylamine, C16-C22	68955-54-4	<1%	H302, H311, H314, H317, H318, H330, H372, H400, H410
Ethyl Vanillin	121-32-4	<1%	H302, H319(2), H402
Tolutriazole derivative thio-compound	136-85-6	<1%	H315, H319, H335

Concentrations may be shown as a range to protect confidentiality and are percent by weight.

To the current knowledge of the manufacturer, additional ingredients present are not classified as hazardous to health or the environment and do not require reporting in this section.

SECTION 4 – First Aid Measures

SKIN CONTACT: Wash well with soap and water. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs, get medical attention.

EYE CONTACT: Flush eyes with plenty of water lifting lids occasionally.

INHALATION: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if the person feels unwell.

INGESTION: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

SECTION 5 – Fire Fighting Measures

This product is flammable	Flashpoint (ASTM -92)	173°C
	Upper flammable limit in air (% by volume)	Not available
	Lower flammable limit in air (% by volume)	Not available
	Auto ignition temperature	Not available
Means of extinction	Water spray, dry chemical, carbon dioxide, alcohol form of extinguisher	
Fire/Explosion	Stable. No explosion hazard.	
Firefighting procedure	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.	
Hazardous combustion products:	Oxides of Carbon, Oxides of Sulphur, oxides of Nitrogen and substances similar to dry cleaning fluid.	
NFPA	Flammability – 1; Health – 1; Reactivity - 1	

SECTION 6 – Accidental Release Measures

Leak and spills procedures: Absorb spill with inert material, then place in a chemical waste container. Remove and dispose of in a manner consistent with local, provincial and federal laws and regulations.

SECTION 7 – Handling and Storage

Handling procedures	Use in a well ventilated area and avoid contact with skin, eyes and clothing. Keep away from heat and flame.
Storage requirements	Store in a closed container in a cool, dry, well ventilated area.

SECTION 8 – Exposure Control/ Personal Protection

Exposure limits:				
Ingredients	CAS#	Exposure limit	LD50	LC50
Distillates (Petroleum), Hydrotreated Light (Inhalable fraction or mist)	64742-53-6	TWA (ACGIH) 5mg/m ³	Not available	Not available
Distillates (Petroleum), Hydrotreated Light Paraffinic (Inhalable fraction or mist)	64742-55-8	TWA (ACGIH) 5mg/m ³	Not available	Not available
Distillates (Petroleum), Solvent-Dewaxed Light Paraffinic (Inhalable fraction or mist)	64742-56-9	TWA (ACGIH) 5mg/m ³	Not available	Not available
Tertiary alkylamine C16 – C22	68955-54-4	TWA 1ppm-skin STEL 2.5 ppm skin	400 mg/kg Rat, oral	Not available
Ethyl Vanillin	121-32-4	Exposure limit not established	Not available	Not available
Tolutriazole derivative thio-compound	136-85-6	Exposure limit not established	Not available	Not available

Engineering controls - Ventilation	Local exhaust system if in an enclosed area	
Personal protective equipment		
Respiratory protection	NIOSH/MSHA – approved respirator	
Hand protection	Latex or vinyl gloves to prevent skin exposure	
Eye protection	Safety glasses with side shades	

SECTION 9 – Physical and Chemical Properties			
Physical state	Liquid	Odor and appearance	Amber liquid, hydrocarbon odor
Odor threshold (ppm)	Not known	Specific gravity	0.94
Vapour density (air=1)	Not applicable	Vapour pressure (mmHg)	0.33 at 38°C
Evaporation rate	Not applicable	Boiling point	240°C
Freezing point	-40°C	pH	8.5
Coefficient of water/oil distribution	Not applicable	Solubility in water	Insoluble

SECTION 10 – Stability and Reactivity	
Chemical stability	Stable
Incompatibility with other substances	Incompatible with strong oxidizing agents
Reactivity	Minimal reactivity
Hazardous decomposition products	Oxides of Carbon, Oxides of Sulphur, Oxides of Nitrogen and substances similar to dry cleaning fluid. Polymerization will not occur.

SECTION 11 – Toxicological Information
Effects of acute exposure: Aspiration hazard. May be fatal if ingested and enters airways. In all other cases, low toxicity. May cause irritation of skin or eyes. People with pre-existing eye or skin conditions may be more susceptible. Minimal inhalation risk at room temperature. At very higher temperatures, inhalation of vapour may be mildly irritating and cause headache or dizziness.
Effects of chronic exposure: Low toxicity but may cause irritation of skin or eyes. People with pre-existing eye or skin conditions may be more susceptible. Minimal inhalation risk at room temperature. At very higher temperatures, inhalation of vapour may be mildly irritating and cause headache.
The effects of acute or prolonged exposure have not been fully investigated and other symptoms may occur.

Irritancy of product: Inhalation of solvents may cause irritation
Skin Sensitization: Slight
Respiratory sensitization: Slight
Carcinogenicity: The ingredients of this product are not listed as carcinogens by NTP (National Toxicology Program). Not regulated as carcinogens by OSHA (Occupational Safety and Health Administration). Not evaluated by IARC (International Agency for Research on Canada) or by ACGIH (American Conference of Governmental Industrial Hygienists).
Reproductive toxicity: No information is available and no adverse reproductive effects are anticipated.
Teratogenicity: No information is available and no adverse reproductive effects are anticipated.
Embryotoxicity: No information is available and no adverse reproductive effects are anticipated.
Mutagenicity: No information is available and no adverse reproductive effects are anticipated.
Sensitizing capability of material: Unknown
Name of Synergistic products/effects: Unknown

SECTION 12 – Ecological Information

Aquatic toxicity	Harmful to aquatic life with long lasting effects.
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SECTION 13 – Disposal Considerations

Waste disposal	Do not puncture or incinerate containers even when empty. Dispose of containers and any unused product in accordance with local, provincial and federal laws and regulations.
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SECTION 14 – Transport Information

P.I.N. classification	Class 3, UN1268 (Petroleum distillate or product.)
T.D.G. classification	Not regulated for land transportation
D.O.T. classification	Not regulated for land transportation
I.M.D.G. classification	Not regulated for sea transportation
I.A.T.A. classification	Not regulated for air transportation

SECTION 15 – Regulatory Information

Canadian Regulations

WHMIS 2015 Classification	B5	
CEPA (Canadian Environmental Protection Act)	All substances in this product are on the Canadian Domestic Substances list (DSL) or are not required to be listed	
U.S. Regulations	HMIS rating - Health	1
	HMIS rating - Flammability	1
	HMIS rating - Reactivity	1
	HMIS rating – Personal protection	B

SECTION 16 – Other Information	
Notice	The information in this material Safety Data Sheet is provided by Pathfinder Lubricants Inc. free of charge. While it is believed to be reliable, it is intended for use by skilled persons at their own risk. Pathfinder Lubricants Inc. assumes no responsibility for events resulting or damages incurred from its use. The information in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.
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