

PENETRATING OIL

8472-LIQUID

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Name: Penetrating Oil**SDS Code:** 8472-Liquid**Related Part #** 8472-4L, 8472-20L

Recommended Use and Restriction on Use

Use: All purpose lubricant and cleaner**Uses Advised Against:** Not available

Details of Manufacturer or Importer

ManufacturerMG Chemicals
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADAMG Chemicals (Head Office)
9347-193 Street
Surrey, British Columbia V4N 4E7
CANADA**☎** +1-800-340-0772**FAX** +1-800-340-0773**E-MAIL** support@mgchemicals.com**WEB** www.mgchemicals.com**☎** +1-905-331-1396**FAX** +1-905-331-2682**E-MAIL** info@mgchemicals.com**E-MAIL** (Competent Person): sds@mgchemicals.com

Emergency Phone Number

For hazardous material incidents ONLY—leaks, spills, fires, exposures or accidentsUSA or CANADA: Call CHEMTREC ☎: **+1-800-424-9300****For emergencies involving dangerous goods;** Collect 24/7CANADA: Call CANUTEC ☎: **+1-613-996-6666** or ***666** on cellular phones

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Section 2: Hazard(s) Identification



Classification of Hazardous Chemical

GHS Categories

Criteria	Category	Signal Word	Pictograms
Aspiration Hazard	1	Danger	Health
Carcinogenicity	2	Warning	Health
Specific target organ toxicity Repeated exposure	2	Warning	Health
Sensitization Skin sensitizer	1	Warning	Exclamation
Eye Irritation	2	Warning	Exclamation
Skin Irritation	2	Warning	Exclamation
Specific target organ toxicity Single exposure	3	Warning	Exclamation
Flammable Liquid	4	Warning	<i>none</i>
Environmental Hazard Chronic Aqua. Tox	2	<i>none</i>	Environment

Note: The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity), which is opposite to HMIS and NFPA conventions. Severity category rankings do not allow comparisons between classes.

Label Elements

Signal Word	DANGER
Pictograms	Hazard Statements
	H304: May be fatal if swallowed and enters airways H373: May cause damage to organs (thymus, liver, bone marrow) through prolonged or repeated exposure H351: Suspected of causing cancer
	H319: Causes severe eye irritation H315: Causes skin irritation H317: May cause an allergic skin reaction H336: May cause dizziness or drowsiness
<i>No Symbol Mandated</i>	H227: Combustible liquid H411: Toxic to aquatic life with long lasting effects

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Prevention	Precautionary Statements
P102	Keep out of reach of children.
P210	Keep away from flames and hot surfaces. No Smoking.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260 + P271	Do not breathe mist/vapors/spray. Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/eye protection/face protection.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
Response	Precautionary Statements
P370 + P378	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.
P301 + P310, P331	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical attention/advice.
P302 + P352	IF ON SKIN: Wash with plenty water.
P314	Get medical advice/attention if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and with it before reuse.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P391	Collect spillage.

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Storage	Precautionary Statements
P403 + P233	Store in well-ventilated place. Keep container tightly closed.
P405	Store locked up.
Disposal	Precautionary Statements
P501	Dispose of contents/container in accordance to local/regional/international regulations.

Hazards Not Otherwise Classified

Not available

Section 3: Composition/Information on Ingredients

CAS #	Chemical Name	%(weight)
64742-47-8	distillates (petroleum) hydrotreated light	41%
8042-47-5	white mineral oil (petroleum)	39%
92045-24-4	gas oils petroleum (hydrotreated light) vacuum	10%
57855-77-3	calcium alkylnaphthalenesulfonate	5%
68478-94-4	poly(oxy-1,2-ethanediyl), a,a'-[[[3-(decyloxy)propyl]methyliminio]di-2,1-ethanediyl]bis[w-hydroxy-, branched, chlorides	1%

PENETRATING OIL**8472-LIQUID****Section 4: First-Aid Measures**

<i>Exposure Condition</i>	<i>GHS Code/Symptoms/Precautionary Statements</i>
IF SWALLOWED	P301 + P310, P331
Immediate Symptoms	<i>nausea, sore throat, diarrhea, drowsiness, dizziness</i>
Response	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.
IF INHALED	P304 + P340, P312, P308 + P313
Immediate Symptoms	<i>drowsiness, dizziness, headaches, nausea, unconsciousness</i>
Response	Remove person to fresh air (out of the contaminated zone) and keep comfortable for breathing. If you feel unwell: Call a POISON CENTRE/doctor. If exposed or concerned: Get medical advice/attention.
IF IN EYES	P305 + P351 + P338, P337 + P313
Immediate Symptoms	<i>redness, severe irritation</i>
Response	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention/advice.
IF ON SKIN	P302 + P352, P314, P333 + P313, P362 + P364
Immediate Symptoms	<i>redness, irritation, dry skin</i>
Response	IF ON SKIN: Wash with plenty of water. Get medical advice/attention if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and with it before reuse.

PENETRATING OIL**8472-LIQUID****Section 5: Fire-Fighting Measures**

Extinguishing Media	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. Use water spray to cool containers.
Specific Hazards	The liquid may float on water and ignite. Produces irritating and toxic fumes in fires or in contact with hot surfaces. The vapors are heavier than air and may accumulate in low-lying areas. Vapors may travel long distances and ignite at an ignition source, which can cause a flashback or an explosion.
Combustion Products	Produces carbon oxides (CO,CO ₂), halogenated compounds, hydrogen fluorides, and sulfur oxides (SO ₂).
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

Section 6: Accidental Release Measures

Personal Protection	See personal protection recommendations in Section 8.
Precautions for Response	Do not breathe the mist/spray/vapors. Remove or keep away all sources of extreme heat or open flames.
Environmental Precautions	Avoid releasing to the environment. Prevent spill from entering drains and waterways.
Containment Methods	Contain with inert and non-flammable absorbent (such as soil, sand, vermiculite).
Cleaning Methods	Collect liquid in a sealable, solvent-resistant container. Sprinkle inert absorbent compound onto spill, then sweep into the container. Wash spill area with soap and water to remove the last traces of residue.
Disposal Methods	Dispose of spill waste according to Section 13.

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Section 7: Handling and Storage

- Prevention** Keep out of reach of children.
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
- Keep away from flames and and hot surfaces. No smoking.
- Do not breathe mist/vapors/spray. Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Do not eat, drink, or smoke when using this product.
- Handling** Wear protective gloves/clothing/eye protection.
- Take off contaminated clothing and wash it before reuse.
- Wash hands thoroughly after handling.
- Avoid release to the environment.
- Storage** Store in well ventilated place. Keep container tightly closed.
- Store locked up.

Section 8: Exposure Controls/Personal Protection

Substances with Occupational Exposure Limit Values

Chemical Name	Country/Provinces	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
distillate (petroleum) hydrotreated light (aerosol)	ACGIH	200 mg/m ³	Not established
	U.S.A. OSHA PEL	Not established	Not established
	Canada AB	200 mg/m ³	Not established
	Canada BC	200 mg/m ³	Not established
	Canada ON	200 mg/m ³	Not established
	Canada QC	Not established	Not established

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Chemical Name	Country	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
white mineral oil (petroleum)	ACGIH	5 mg/m ³	(10 mg/m ³) ^{b)}
	U.S.A. OSHA PEL	5 mg/m ³	Not established
	U.S.A WEEL ^{a)}	5 mg/m ³	10 mg/m ³
	Canada AB	5 mg/m ³	10 mg/m ³
	Canada BC ^{b)}	1 mg/m ³	Not established
	Canada ON	5 mg/m ³	10 mg/m ³
gas oils petroleum (hydrotreated light) vacuum	Canada QC	5 mg/m ³	10 mg/m ³
	ACGIH ^{c)}	5 mg/m ³	10 mg/m ³
	U.S.A. OSHA PEL	Not established	Not established
	Canada AB	Not established	Not established
	Canada BC ^{b)}	1 mg/m ³	Not established
	Canada ON	Not established	Not established
	Canada QC	Not established	Not established

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH¹, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from by RTECS² database and data from suppliers' SDS were also consulted. Short term exposure limits (STEL) are for 15 min and long term permissible exposure limits (PEL) for 8 h.

a) Workplace Environmental Exposure Limit

b) Base on oil mist, severely refined value.

c) Value reported as a read across to the ACGIH mineral oil inhalable fraction. The supplier derived inhalation effects are 68 mg/m³ for long term and 4300 mg/m³ for short term.

Engineering Controls

Ventilation

Keep airborne concentrations below the occupational exposure limits (OEL).

Personal Protective Equipment

Eye protection

Wear appropriate protective eyeglasses or chemical safety goggles.

Recommendation: Ensure that glasses have side shields for lateral protection.

Skin Protection

For likely contacts, use of protective nitrile gloves or other chemically resistant gloves.

For incidental contacts, use nitrile, neoprene, PVC gloves, or other chemically resistant gloves.

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Respiratory Protection For over-exposures up to 10 x OEL of mist/vapors/spray, wear respirator such as a half-mask respirator with organic vapor cartridges resistant to oils.

Above 10 x OEL, use a positive-pressure, air-supplied respirator or a self-contained breathing apparatus.

RECOMMENDATION: Consult your local safety supply store to ensure your respirator has filter cartridges appropriate for the ingredients listed in section 3 of this SDS, and that the respirator is fitted to the employee by a professional.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

Section 9: Physical and Chemical Properties

Physical State	Liquid	Lower Flammability Limit	0.6%
Appearance	Transparent, yellow/orange	Upper Flammability Limit	10.0%
Odor	Slight hydrocarbon	Vapor Pressure @20 °C ^{a)}	< 0.013 hPa [<0.010 mmHg]
Odor Threshold	Not available	Vapor Density	≥5 (Air =1)
pH	Not available	Specific Gravity @25 °C	0.83
Freezing/Melting Point	Not available	Solubility in Water	Immiscible
Boiling Point	≥228 °C [≥442 °F]	Partition Coefficient	Not available
Flash Point ^{a)}	>66 °C [>150 °F]	Auto-ignition Temperature ^{a)}	≥216 °C [≥421 °F]
Evaporation Rate	Not available	Decomposition Temperature	Not available
Flammability (solid, gas)	Not available	Viscosity @40 °C	<20.5 mm ² /s

a) Values based on the mixture of distillates (petroleum) hydrotreated light, which is the component with the lowest value.

PENETRATING OIL**8472-LIQUID****Section 10: Stability and Reactivity**

Reactivity	Not available.
Chemical Stability	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Avoid mechanical or thermal mist generation. Avoid excessive heat, open flames, and incompatible substances.
Incompatibilities	strong oxidizing agents, strong acids, strong bases
Polymerization	Will not occur
Decomposition	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5.

Section 11: Toxicological Information**Routes of Exposure**

Ingestion, Inhalation, Eye contact, and Skin contact

Symptoms Summary

Eyes	May cause redness and severe eye irritation.
Skin	May cause skin redness, irritation, and dry skin.
Inhalation	May cause drowsiness, dizziness, headaches, nausea, and unconsciousness.
Ingestion	May cause nausea, sore throat, and diarrhea (see inhalation symptoms)
Chronic	Prolonged or repeated exposure may cause skin dryness and cracking, defat skin. Long term exposure may lead to allergic skin reaction in some individuals.

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PENETRATING OIL
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Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
distillates (petroleum) hydrotreated light	>8 000 mg/kg Rat	>4 000 mg/kg Rabbit	>2 500 ppm 4 h Rat
white mineral oil (petroleum)	>5 000 mg/kg Rat	Not available	Not available
gas oils petroleum (hydrotreated light) vacuum	>5 000 mg/kg Rat	>2 000 mg/kg Rabbit	Not available
calcium alkylnaphthalenesulfonate	2 000 mg/kg Rat	>20 g/kg Rabbit	>18 000 mg/m ³ 1 h Rat
poly(oxy-1,2-ethanediyl), a,a'-[[[3-(decyloxy)propyl]methyliminio]di-2,1-ethanediyl]bis[w-hydroxy-, branched, chlorides	Not available	Not available	Not available

Note: Toxicity data from the RTECS² and ECHA databases were consulted. The data from supplier (M)SDS were also consulted.

a) Supplier MSDS

Other Toxicological Effects
Skin corrosion/irritation

The mixture is calculated to be a skin irritant.

Serious eye damage/irritation

Poly(oxy-1,2-ethanediyl), a,a'-[[[3-(decyloxy)propyl]methyliminio]di-2,1-ethanediyl]bis[w-hydroxy-, branched, chlorides is a category 1 corrosive, which is present at 1%. In conjunction of the the 5% of the category 2 calcium alkylnaphthalene sulfonate, the mixture is therefore classified as category 2.

Sensitization
 (allergic reactions)

Poly(oxy-1,2-ethanediyl), a,a'-[[[3-(decyloxy)propyl]methyliminio]di-2,1-ethanediyl]bis[w-hydroxy-, branched, chlorides is a skin sensitizer according to animal studies.

Carcinogenicity
 (risk of cancer)

None of the ingredients are classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP.

The middle distillates of gas oils petroleum (hydrotreated light) vacuum have a weak carcinogenic potentation as demonstrated by the low tumor yield and the long latent periods.

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Mutagenicity (risk of heritable genetic effects)	Based on available data, the classification criteria are not met.
Reproductive Toxicity (risk to sex functions)	Based on available data, the classification criteria are not met.
Teratogenicity (risk of fetus malformation)	Based on available data, the classification criteria are not met.
STOT-single exposure	The hydrocarbon hydrotreated light is known to have narcotic effects by inhalation.
STOT-repeated exposure	Gas oils petroleum (hydrotreated light) vacuum may cause damage to the thymus, liver, and bone marrow through prolonged or repeated exposure.
Aspiration hazard	The liquid is content is classified as Cat 1 aspiration hazards. It is composed of petroleum, and the kinematic viscosity is <math><20.5 \text{ mm}^2/\text{s}</math> at 40 °C.

Section 12: Ecological Information

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (<http://echa.europa.eu>), and other reliable sources.

The distillate (petroleum) hydrotreated light and gas oils (petroleum), hydrotreated light vacuum components have a chronic aqueous toxicity of category 2.

Acute Ecotoxicity

Category 2

Toxic to aquatic life

Chronic Ecotoxicity

Category 2

Toxic to aquatic life with long lasting effects.

Avoid release to the environment. Collect spillage.

Biodegradability

Expected to be inherently biodegradable. The volatile constituents will oxidize rapidly in air by photochemical reaction.

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Other Effects

Regulated Volatile Organic Compounds (VOC) content according to the US (EPA) and Canadian (CEPA) authorities.

VOC (CEPA) = 38% [317 g/L]

VOC (EPA) = 78% [592 g/L]

VOC with low vapor pressure exemption (California & Canada) = 0.19% [1.6 g/L]

Section 13: Disposal Information

Dispose of contents in accordance with all local, regional, national, and international regulations.

Section 14: Transport Information

Ground

Refer to TDG (Canadian Transportation of Dangerous Goods regulations) and **USA DOT 49 CFR** (Parts 100 to 185) **Regulations.**

Sizes 5 liter and under

Limited Quantity



Sizes greater than 5 L

UN number: UN3082

Shipping Name: Environmentally Hazardous Substance, Liquid N.O.S. (Vacuum Gas Oil)

Class: 9

Packing Group: III

Marine Pollutant: Yes



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Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Sizes 5 liter and under

Limited Quantity



Sizes greater than 5 L

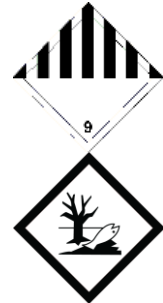
UN number: UN3082

Shipping Name: Environmentally Hazardous Substance, Liquid N.O.S. (Vacuum Gas Oil)

Class: 9

Packing Group: III

Marine Pollutant: Yes



Sea

Refer to IMDG regulations.

Sizes 5 liter and under

Limited Quantity



Sizes greater than 5 L

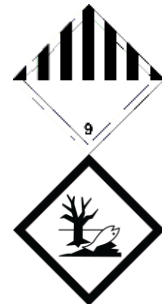
UN number: UN3082

Shipping Name: Environmentally Hazardous Substance, Liquid N.O.S. (Vacuum Gas Oil)

Class: 9

Packing Group: III

Marine Pollutant: Yes



Note: Shipper must be appropriately trained and certified before involvement with the transport of dangerous goods.

PENETRATING OIL**8472-LIQUID****Section 15: Regulatory Information****Canada****WHMIS 1988 Classification**

B3 – Combustible Liquids; D2A – Very Toxic (carcinogen)

D2B – Toxic Other (skin irritant, eye irritant, skin sensitizer)

Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)

All hazardous ingredients are listed on the DSL.

Industry and Science Canada

MG Labels products intended for the workplace to conform to WHMIS labeling regulations. Product identification, net quantity declaration, minimum printing type size heights, and packaging of this product are in compliance.

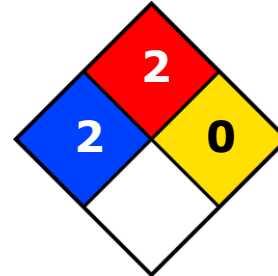
Health Canada

Products produced by MG Chemicals intended for retail display conform to the Canadian Consumer Labeling Regulations.

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PENETRATING OIL**8472-LIQUID****USA****Other Classifications****HMIS® RATING**

HEALTH:	*	2
FLAMMABILITY:		2
PHYSICAL HAZARD:		0
PERSONAL PROTECTION:		

NFPA® 704 CODES

Approximate HMIS and NFPA Risk Ratings Legend:

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

CAA (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain substances that are listed as hazardous air pollutants.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product does not contain ingredients that have a reporting quantity requirements in section 313 Title III of the SARA of 1986 and 40 CFR part 372.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, Sept 2, 2011 revision, USA).

This product does not contain any listed substances in California.

Europe**RoHS** (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, and complies with European RoHS regulations.

WEEE (Waste Electrical and Electronic Equipment Directive)

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

PENETRATING OIL**8472-LIQUID****Section 16: Other Information****SDS Prepared by** Michel Hachey**Date of Review** 19 November 2015**Supersedes** 15 July 2011**Reason for Changes:** Change to GHS format in compliance with HCS 2012 and WHMIS.**Reference**

1) ACGIH 2013 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2013).

2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
EC50	Half maximal effective concentration
EL50	Half maximal effective loading
NOELR	No observable effect loading ratio
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
STEL	Short-Term Exposure Limit
TCLo	Lowest published toxic concentration
TWA	Time Weighted Average
VOC	Volatile Organic Content

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Technical Queries Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

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