



## 2003 LONG-LIFE GREASE+MOS2 100g

Liqui Moly GmbH

Chemwatch: 16-81817

Version No: 5.1.1.1

Safety Data Sheet according to WHMIS 2015 requirements

Chemwatch Hazard Alert Code: 1

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S.GHS.CAN.EN

### SECTION 1 IDENTIFICATION

#### Product Identifier

Product name	2003 LONG-LIFE GREASE+MOS2 100g
Synonyms	Not Available
Other means of identification	Not Available

#### Recommended use of the chemical and restrictions on use

Relevant identified uses	Use according to manufacturer's directions.
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#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Liqui Moly GmbH
Address	Jerg-Wieland-Strasse 4 Ulm D-89081 Germany
Telephone	+49 731 1420 0
Fax	+49 731 1420 82
Website	<a href="http://www.liqui-moly.com/">http://www.liqui-moly.com/</a>
Email	Not Available

#### Emergency phone number

Association / Organisation	INFOTRAC
Emergency telephone numbers	+1800 535 5053 (US, Canada & Mexico)
Other emergency telephone numbers	+1 352 323 3500 (International)

### SECTION 2 HAZARD(S) IDENTIFICATION

#### Classification of the substance or mixture

NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

#### CANADIAN WHMIS SYMBOLS

Classification	Specific target organ toxicity - single exposure Category 3 (narcotic effects)
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#### Label elements

Hazard pictogram(s)	
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SIGNAL WORD	WARNING
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#### Hazard statement(s)

H336	May cause drowsiness or dizziness.
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Not Applicable

#### Precautionary statement(s) Prevention

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P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing mist/vapours/spray.

## Precautionary statement(s) Response

P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

## Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

## Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
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## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

## Substances

See section below for composition of Mixtures

## Mixtures

CAS No	%[weight]	Name
Not Available		base oil may contains one or more oils as below
64742-62-7.	50-60	<u>residual oils, petroleum, solvent dewaxed</u>
64742-54-7.	50-60	<u>paraffinic distillate, heavy, hydrotreated (severe)</u>
64742-57-0.	50-60	<u>residual oils, petroleum, hydrotreated.</u>
64742-65-0.	50-60	<u>paraffinic distillate, heavy, solvent-dewaxed (severe)</u>
64742-52-5.	30-40	<u>naphthenic distillate, heavy, hydrotreated (severe)</u>
7620-77-1	<10	<u>lithium hydroxystearate</u>
7782-42-5	<5	<u>graphite</u>
1317-65-3	<2.5	<u>limestone</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

## SECTION 4 FIRST-AID MEASURES

## Description of first aid measures

Eye Contact	<p>If this product comes in contact with eyes:</p> <ul style="list-style-type: none"> <li>Wash out immediately with water.</li> <li>If irritation continues, seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
Skin Contact	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>
Inhalation	<ul style="list-style-type: none"> <li>If fumes or combustion products are inhaled remove from contaminated area.</li> <li>Lay patient down. Keep warm and rested.</li> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>Transport to hospital, or doctor, without delay.</li> </ul>
Ingestion	<ul style="list-style-type: none"> <li>If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.</li> <li><b>If swallowed do NOT induce vomiting.</b></li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Seek medical advice.</li> <li>Avoid giving milk or oils.</li> <li>Avoid giving alcohol.</li> </ul>

## Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

For petroleum distillates

- In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption - decontamination (induced emesis or lavage) is controversial and should be considered on the merits of each individual case; of course the usual precautions of an endotracheal tube should be considered prior to lavage, to prevent aspiration.
- Individuals intoxicated by petroleum distillates should be hospitalized immediately, with acute and continuing attention to neurologic and cardiopulmonary function.
- Positive pressure ventilation may be necessary.
- Acute central nervous system signs and symptoms may result from large ingestions of aspiration-induced hypoxia.
- After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary oedema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated.
- Gastrointestinal symptoms are usually minor and pathological changes of the liver and kidneys are reported to be uncommon in acute intoxications.

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Chlorinated and non-chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur. Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.

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- Heavy and persistent skin contamination over many years may lead to dysplastic changes. Pre-existing skin disorders may be aggravated by exposure to this product.
- In general, emesis induction is unnecessary with high viscosity, low volatility products, i.e. most oils and greases.
- High pressure accidental injection through the skin should be assessed for possible incision, irrigation and/or debridement.

**NOTE:** Injuries may not seem serious at first, but within a few hours tissue may become swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Product may be forced through considerable distances along tissue planes.

## SECTION 5 FIRE-FIGHTING MEASURES

## Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

## Special hazards arising from the substrate or mixture

## Fire Incompatibility

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

## Special protective equipment and precautions for fire-fighters

Fire Fighting	<ul style="list-style-type: none"> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul>
Fire/Explosion Hazard	<ul style="list-style-type: none"> <li>Combustible.</li> <li>Slight fire hazard when exposed to heat or flame.</li> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include: carbon dioxide (CO<sub>2</sub>) nitrogen oxides (NO<sub>x</sub>) sulfur oxides (SO<sub>x</sub>) metal oxides other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes. carbon monoxide (CO)</p> <p><b>CARE:</b> Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire.</p>

## SECTION 6 ACCIDENTAL RELEASE MEASURES

## Personal precautions, protective equipment and emergency procedures

See section 8

## Environmental precautions

See section 12

## Methods and material for containment and cleaning up

Minor Spills	<p>Slippery when spilt.</p> <ul style="list-style-type: none"> <li>Clean up all spills immediately.</li> <li>Avoid contact with skin and eyes.</li> <li>Wear impervious gloves and safety goggles.</li> <li>Trowel up/scrape up.</li> </ul>
Major Spills	<p>Slippery when spilt. Minor hazard.</p> <ul style="list-style-type: none"> <li>Clear area of personnel.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Control personal contact with the substance, by using protective equipment as required.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 HANDLING AND STORAGE

## Precautions for safe handling

Safe handling	<p>The conductivity of this material may make it a static accumulator. A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10 000 pS/m. Whether a liquid is nonconductive or semi-conductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid.</p> <ul style="list-style-type: none"> <li>Containers, even those that have been emptied, may contain explosive vapours.</li> <li>Do NOT cut, drill, grind, weld or perform similar operations on or near containers.</li> <li>Electrostatic discharge may be generated during pumping - this may result in fire.</li> <li>Ensure electrical continuity by bonding and grounding (earthing) all equipment.</li> <li>Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<math>\leq 1</math> m/sec until fill pipe submerged to twice its diameter, then <math>\leq 7</math> m/sec).</li> <li>Avoid splash filling.</li> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure occurs.</li> </ul>
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	<ul style="list-style-type: none"> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> </ul>
Other information	<ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ Store in a cool, dry, well-ventilated area.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> </ul>

## Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> <li>▶ Metal can or drum</li> <li>▶ Packaging as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>
Storage incompatibility	<p><b>CARE:</b> Water in contact with heated material may cause foaming or a steam explosion with possible severe burns from wide scattering of hot material. Resultant overflow of containers may result in fire.</p> <ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul>

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

## Control parameters

## OCCUPATIONAL EXPOSURE LIMITS (OEL)

## INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	residual oils, petroleum, solvent dewaxed	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Nova Scotia Occupational Exposure Limits	residual oils, petroleum, solvent dewaxed	Oil mist - mineral	5 mg/m3	10 mg/m3	Not Available	TLV Basis: lung. As sampled by method that does not collect vapor.
Canada - Alberta Occupational Exposure Limits	residual oils, petroleum, solvent dewaxed	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	residual oils, petroleum, solvent dewaxed	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	residual oils, petroleum, solvent dewaxed	Not Available	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	residual oils, petroleum, solvent dewaxed	Mineral oil (mist)	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits (English)	residual oils, petroleum, solvent dewaxed	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	residual oils, petroleum, solvent dewaxed	Oil mist - mineral, severely refined	1 mg/m3	Not Available	Not Available	Not Available
Canada - Prince Edward Island Occupational Exposure Limits	residual oils, petroleum, solvent dewaxed	Mineral oil, excluding metal working fluids - Pure, highly and severely refined	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	paraffinic distillate, heavy, hydrotreated (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Nova Scotia Occupational Exposure Limits	paraffinic distillate, heavy, hydrotreated (severe)	Oil mist - mineral	5 mg/m3	10 mg/m3	Not Available	TLV Basis: lung. As sampled by method that does not collect vapor.
Canada - Alberta Occupational Exposure Limits	paraffinic distillate, heavy, hydrotreated (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	paraffinic distillate, heavy, hydrotreated (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	paraffinic distillate, heavy, hydrotreated (severe)	Not Available	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	paraffinic distillate, heavy, hydrotreated (severe)	Mineral oil (mist)	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits (English)	paraffinic distillate, heavy, hydrotreated (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	paraffinic distillate, heavy, hydrotreated (severe)	Oil mist - mineral, severely refined	1 mg/m3	Not Available	Not Available	Not Available

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Canada - Prince Edward Island Occupational Exposure Limits	paraffinic distillate, heavy, hydrotreated (severe)	Mineral oil, excluding metal working fluids - Pure, highly and severely refined	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	residual oils, petroleum, hydrotreated.	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Nova Scotia Occupational Exposure Limits	residual oils, petroleum, hydrotreated.	Oil mist - mineral	5 mg/m3	10 mg/m3	Not Available	TLV Basis: lung. As sampled by method that does not collect vapor.
Canada - Alberta Occupational Exposure Limits	residual oils, petroleum, hydrotreated.	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	residual oils, petroleum, hydrotreated.	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	residual oils, petroleum, hydrotreated.	Not Available	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	residual oils, petroleum, hydrotreated.	Mineral oil (mist)	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits (English)	residual oils, petroleum, hydrotreated.	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	residual oils, petroleum, hydrotreated.	Oil mist - mineral, severely refined	1 mg/m3	Not Available	Not Available	Not Available
Canada - Prince Edward Island Occupational Exposure Limits	residual oils, petroleum, hydrotreated.	Mineral oil, excluding metal working fluids - Pure, highly and severely refined	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	paraffinic distillate, heavy, solvent-dewaxed (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Nova Scotia Occupational Exposure Limits	paraffinic distillate, heavy, solvent-dewaxed (severe)	Oil mist - mineral	5 mg/m3	10 mg/m3	Not Available	TLV Basis: lung. As sampled by method that does not collect vapor.
Canada - Alberta Occupational Exposure Limits	paraffinic distillate, heavy, solvent-dewaxed (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	paraffinic distillate, heavy, solvent-dewaxed (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	paraffinic distillate, heavy, solvent-dewaxed (severe)	Not Available	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	paraffinic distillate, heavy, solvent-dewaxed (severe)	Mineral oil (mist)	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits (English)	paraffinic distillate, heavy, solvent-dewaxed (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	paraffinic distillate, heavy, solvent-dewaxed (severe)	Oil mist - mineral, severely refined	1 mg/m3	Not Available	Not Available	Not Available
Canada - Prince Edward Island Occupational Exposure Limits	paraffinic distillate, heavy, solvent-dewaxed (severe)	Mineral oil, excluding metal working fluids - Pure, highly and severely refined	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	naphthenic distillate, heavy, hydrotreated (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Nova Scotia Occupational Exposure Limits	naphthenic distillate, heavy, hydrotreated (severe)	Oil mist - mineral	5 mg/m3	10 mg/m3	Not Available	TLV Basis: lung. As sampled by method that does not collect vapor.
Canada - Alberta Occupational Exposure Limits	naphthenic distillate, heavy, hydrotreated (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	naphthenic distillate, heavy, hydrotreated (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	naphthenic distillate, heavy, hydrotreated (severe)	Not Available	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr

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Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	naphthenic distillate, heavy, hydrotreated (severe)	Mineral oil (mist)	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits (English)	naphthenic distillate, heavy, hydrotreated (severe)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	naphthenic distillate, heavy, hydrotreated (severe)	Oil mist - mineral, severely refined	1 mg/m3	Not Available	Not Available	Not Available
Canada - Prince Edward Island Occupational Exposure Limits	naphthenic distillate, heavy, hydrotreated (severe)	Mineral oil, excluding metal working fluids - Pure, highly and severely refined	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
Canada - Nova Scotia Occupational Exposure Limits	lithium hydroxystearate	Stearates	10 mg/m3	Not Available	Not Available	TLV Basis: eye, skin & upper respiratory tract irritation. Does not include stearates of toxic metals
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	lithium hydroxystearate	Stearates	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	lithium hydroxystearate	Not Available	10 mg/m3	Not Available	Not Available	TLV® Basis: Eye, skin, & URT irr
Canada - Northwest Territories Occupational Exposure Limits (English)	lithium hydroxystearate	Stearates	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	lithium hydroxystearate	Stearates	10 mg/m3	Not Available	Not Available	(J) - does not include stearates of toxic metals.
Canada - Prince Edward Island Occupational Exposure Limits	lithium hydroxystearate	* Stearates(J)	10; 3 mg/m3	Not Available	Not Available	TLV® Basis: LRT irr
Canada - Nova Scotia Occupational Exposure Limits	graphite	Graphite - All forms except graphite fibers	2 mg/m3	Not Available	Not Available	TLV Basis: pneumoconiosis
Canada - Alberta Occupational Exposure Limits	graphite	Graphite, respirable (all forms except graphite fibres)	2 mg/m3	Not Available	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	graphite	Graphite, natural-all forms except graphite fibres (respirable fraction++)	2 mg/m3	4 mg/m3	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	graphite	Not Available	2 mg/m3	Not Available	Not Available	TLV® Basis: Pneumoconiosis
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	graphite	Graphite (all forms except fibers)	2 mg/m3	Not Available	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits (English)	graphite	Graphite, natural-all forms except graphite fibres (respirable fraction)	2 mg/m3	4 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	graphite	Graphite - All forms except graphite fibres, Respirable	2 mg/m3	Not Available	Not Available	Not Available
Canada - Prince Edward Island Occupational Exposure Limits	graphite	Graphite (all forms except graphite fibers)	2 mg/m3	Not Available	Not Available	TLV® Basis: Pneumoconiosis
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	limestone	Marble/calcium carbonate	Not Available	Not Available	Not Available	(See Table 11)
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	limestone	Limestone	Not Available	Not Available	Not Available	(See Table 11)
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	limestone	Calcium carbonate/marble	Not Available	Not Available	Not Available	(See Table 11)
Canada - Alberta Occupational Exposure Limits	limestone	Calcium carbonate (Aragonite, Calcite, Marble, Vaterite)	Not Available	Not Available	Not Available	Not Available
Canada - Alberta Occupational Exposure Limits	limestone	Calcium carbonate (Aragonite, Calcite, Marble, Vaterite)	Not Available	Not Available	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	limestone	Limestone (calcium carbonate)	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	limestone	Calcium carbonate	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	limestone	Calcium carbonate	10 mg/m3	Not Available	Not Available	Not Available
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	limestone	Calcium carbonate	10 mg/m3	Not Available	Not Available	Not Available

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Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	limestone	Limestone	10 mg/m3	Not Available	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits (English)	limestone	Limestone (calcium carbonate)	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits (English)	limestone	Limestone (calcium carbonate)	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits (English)	limestone	Calcium carbonate	10 mg/m3	20 mg/m3	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	limestone	Calcium carbonate (incl. Limestone, Marble)	10 mg/m3	20 mg/m3	Not Available	(N) - the 8-hour TWA listed in the Table is for the total dust. The substance also has an 8-hour TWA of 3 mg/m <sup>3</sup> for the respirable fraction.

## EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
paraffinic distillate, heavy, solvent-dewaxed (severe)	Pump oil; (petroleum distillates, solvent de-waxed heavy paraffinic)	140 mg/m3	1,500 mg/m3	8,900 mg/m3
naphthenic distillate, heavy, hydrotreated (severe)	Distillates (petroleum) hydrotreated heavy naphthenic	140 mg/m3	1,500 mg/m3	8,900 mg/m3
graphite	Graphite; (Mineral carbon)	6 mg/m3	16 mg/m3	95 mg/m3
limestone	Limestone; (Calcium carbonate; Dolomite)	45 mg/m3	500 mg/m3	3,000 mg/m3
limestone	Carbonic acid, calcium salt	45 mg/m3	210 mg/m3	1,300 mg/m3

Ingredient	Original IDLH	Revised IDLH
residual oils, petroleum, solvent dewaxed	2,500 mg/m3	Not Available
paraffinic distillate, heavy, hydrotreated (severe)	2,500 mg/m3	Not Available
residual oils, petroleum, hydrotreated.	2,500 mg/m3	Not Available
paraffinic distillate, heavy, solvent-dewaxed (severe)	2,500 mg/m3	Not Available
naphthenic distillate, heavy, hydrotreated (severe)	2,500 mg/m3	Not Available
lithium hydroxystearate	Not Available	Not Available
graphite	1,250 mg/m3	Not Available
limestone	Not Available	Not Available

## Exposure controls

<b>Appropriate engineering controls</b>	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</p>
<b>Personal protection</b>	
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.</li> </ul>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	<ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C. apron.</li> <li>▶ Barrier cream.</li> </ul>

## Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
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Continued...



## 2003 LONG-LIFE GREASE+MOS2 100g

up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

<b>Appearance</b>	Black paste like solid with characteristic odour; not miscible with water.		
<b>Physical state</b>	Non Slump Paste	<b>Relative density (Water = 1)</b>	<1
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	Not Applicable	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	>20.5
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Applicable
<b>Flash point (°C)</b>	>150	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Applicable	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	0
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water</b>	Immiscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

## SECTION 10 STABILITY AND REACTIVITY

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	Product is considered stable and hazardous polymerisation will not occur.
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

<b>Inhaled</b>	Inhalation hazard is increased at higher temperatures. Inhaling high concentrations of mixed hydrocarbons can cause narcosis, with nausea, vomiting and lightheadedness. Low molecular weight (C2-C12) hydrocarbons can irritate mucous membranes and cause incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor. Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal. Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.
<b>Ingestion</b>	Ingestion may result in nausea, abdominal irritation, pain and vomiting
<b>Skin Contact</b>	The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives. Open cuts, abraded or irritated skin should not be exposed to this material The material may accentuate any pre-existing dermatitis condition Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
<b>Eye</b>	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).



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<b>Chronic</b>	Oil may contact the skin or be inhaled. Extended exposure can lead to eczema, inflammation of hair follicles, pigmentation of the face and warts on the soles of the feet. Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin.	
<b>2003 LONG-LIFE GREASE+MOS2 100g</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>residual oils, petroleum, solvent dewaxed</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (rat) LC50: >5.3 mg/l4 h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
<b>paraffinic distillate, heavy, hydrotreated (severe)</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (rat) LC50: >5.3 mg/l4 h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
<b>residual oils, petroleum, hydrotreated.</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (rat) LC50: >5.3 mg/l4 h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
<b>paraffinic distillate, heavy, solvent-dewaxed (severe)</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (rat) LC50: >5.3 mg/l4 h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
<b>naphthenic distillate, heavy, hydrotreated (severe)</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (rat) LC50: >5.3 mg/l4 h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
<b>lithium hydroxystearate</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (rat) LD50: >655 mg/kg <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
<b>graphite</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Inhalation (rat) LC50: >2 mg/l4 h <sup>[1]</sup>	Not Available
	Oral (rat) LD50: >2000 mg/kg <sup>[2]</sup>	
<b>limestone</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: 6450 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
		Skin (rabbit): 500 mg/24h-moderate
		Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
<b>Legend:</b>	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

<b>RESIDUAL OILS, PETROLEUM, HYDROTREATED.</b>	* CONCAWE Studies based on other lube oils.
<b>NAPHTHENIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE)</b>	Based on laboratory and animal testing, exposure to the material may result in irreversible effects and mutations in humans. <b>NOTE:</b> Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.
<b>LITHIUM HYDROXYSTEARATE</b>	Fatty acid salts of low acute toxicity. Their potential to irritate the skin and eyes is dependent on chain length.
<b>GRAPHITE</b>	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.

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<b>LIMESTONE</b>	<p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.</p> <p>Eye (rabbit) 0.75: mg/24h - No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects.</p>
<b>RESIDUAL OILS, PETROLEUM, SOLVENT DEWAXED &amp; PARAFFINIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE) &amp; RESIDUAL OILS, PETROLEUM, HYDROTREATED. &amp; PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE) &amp; NAPHTHENIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE)</b>	<p>The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives;</p> <p>The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone, since:</p> <ul style="list-style-type: none"> <li>The adverse effects of these materials are associated with undesirable components, and</li> <li>The levels of the undesirable components are inversely related to the degree of processing;</li> <li>Distillate base oils receiving the same degree or extent of processing will have similar toxicities;</li> <li>The potential toxicity of residual base oils is independent of the degree of processing the oil receives.</li> <li>The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing.</li> </ul> <p>Unrefined &amp; mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential cancer-causing and mutation-causing activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components.</p> <p>For highly and severely refined distillate base oils:</p> <p>In animal studies, the acute, oral, semilethal dose is &gt;5g/kg body weight and the semilethal dose by skin contact is &gt;2g/kg body weight. The semilethal concentration for inhalation is 2.18 to &gt;4 mg/L. The materials have varied from "non-irritating" to "moderately irritating" when tested for skin and eye irritation. Testing for sensitisation has been negative.</p>
<b>RESIDUAL OILS, PETROLEUM, SOLVENT DEWAXED &amp; RESIDUAL OILS, PETROLEUM, HYDROTREATED.</b>	<p>Residual oils have substantial measurable levels of polycyclic aromatic compounds (PAC), and would therefore be expected to have mutation-causing and/or cancer-causing activity. However, no adverse effects have been seen in testing, irrespective of the degree of processing they have undergone.</p> <p>Acute toxicity: There is no acute toxicity data available for the residual base oils. It is thought that the high molecular weight of these materials and associated low bioavailability prevent acute toxicity.</p>
<b>RESIDUAL OILS, PETROLEUM, SOLVENT DEWAXED &amp; RESIDUAL OILS, PETROLEUM, HYDROTREATED. &amp; PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE) &amp; NAPHTHENIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE) &amp; LITHIUM HYDROXYSTEARATE &amp; GRAPHITE</b>	<p>No significant acute toxicological data identified in literature search.</p>
<b>PARAFFINIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE) &amp; PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE) &amp; NAPHTHENIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE)</b>	<p>The substance is classified by IARC as Group 3:</p> <p><b>NOT</b> classifiable as to its carcinogenicity to humans.</p> <p>Evidence of carcinogenicity may be inadequate or limited in animal testing.</p>
<b>PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE) &amp; NAPHTHENIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE)</b>	<p>Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins.</p> <p>The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet.</p>

<b>Acute Toxicity</b>	<b>×</b>	<b>Carcinogenicity</b>	<b>×</b>
<b>Skin Irritation/Corrosion</b>	<b>×</b>	<b>Reproductivity</b>	<b>×</b>
<b>Serious Eye Damage/Irritation</b>	<b>×</b>	<b>STOT - Single Exposure</b>	<b>✓</b>
<b>Respiratory or Skin sensitisation</b>	<b>×</b>	<b>STOT - Repeated Exposure</b>	<b>×</b>
<b>Mutagenicity</b>	<b>×</b>	<b>Aspiration Hazard</b>	<b>×</b>

Legend: **×** – Data either not available or does not fill the criteria for classification  
**✓** – Data available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

2003 LONG-LIFE GREASE+MOS2 100g	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
residual oils, petroleum, solvent dewaxed	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>10-mg/L	2
	NOEC	504	Crustacea	>1mg/L	1
paraffinic distillate, heavy, hydrotreated (severe)	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>10-mg/L	2
	EC50	96	Algae or other aquatic plants	>1000mg/L	1
	NOEC	504	Crustacea	>1mg/L	1

Continued...

## 2003 LONG-LIFE GREASE+MOS2 100g

residual oils, petroleum, hydrotreated.	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>10-mg/L	2
paraffinic distillate, heavy, solvent-dewaxed (severe)	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>10-mg/L	2
	EC50	96	Algae or other aquatic plants	>1000mg/L	1
naphthenic distillate, heavy, hydrotreated (severe)	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>10-mg/L	2
	EC50	96	Algae or other aquatic plants	>1000mg/L	1
lithium hydroxystearate	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>100mg/L	2
	EC50	72	Algae or other aquatic plants	>100mg/L	2
graphite	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>100mg/L	2
	EC50	72	Algae or other aquatic plants	>100mg/L	2
limestone	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>56000mg/L	4
	EC50	72	Algae or other aquatic plants	>14mg/L	2
	EC10	72	Algae or other aquatic plants	>14mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	NOEC	72	Algae or other aquatic plants	14mg/L	2

**Legend:** Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

**DO NOT** discharge into sewer or waterways.

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

#### Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

#### Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

### SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> <li><b>DO NOT</b> allow wash water from cleaning or process equipment to enter drains.</li> <li>It may be necessary to collect all wash water for treatment before disposal.</li> <li>In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>Where in doubt contact the responsible authority.</li> <li>Recycle wherever possible or consult manufacturer for recycling options.</li> <li>Consult State Land Waste Authority for disposal.</li> <li>Bury or incinerate residue at an approved site.</li> <li>Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>
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### SECTION 14 TRANSPORT INFORMATION

Continued...

## 2003 LONG-LIFE GREASE+MOS2 100g

## Labels Required

Marine Pollutant	NO
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Land transport (TDG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

## SECTION 15 REGULATORY INFORMATION

## Safety, health and environmental regulations / legislation specific for the substance or mixture

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

## RESIDUAL OILS, PETROLEUM, SOLVENT DEWAXED(64742-62-7.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Canada - Alberta Occupational Exposure Limits	Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits
Canada - British Columbia Occupational Exposure Limits	Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances
Canada - Manitoba Occupational Exposure Limits	Canada Categorization decisions for all DSL substances
Canada - Northwest Territories Occupational Exposure Limits	Canada Domestic Substances List (DSL)
Canada - Nova Scotia Occupational Exposure Limits	IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO
Canada - Prince Edward Island Occupational Exposure Limits	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	International FOSFA List of Banned Immediate Previous Cargoes

## PARAFFINIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE)(64742-54-7.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Canada - Alberta Occupational Exposure Limits	Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits
Canada - British Columbia Occupational Exposure Limits	Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances
Canada - Manitoba Occupational Exposure Limits	Canada Categorization decisions for all DSL substances
Canada - Northwest Territories Occupational Exposure Limits	Canada Domestic Substances List (DSL)
Canada - Nova Scotia Occupational Exposure Limits	IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO
Canada - Prince Edward Island Occupational Exposure Limits	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
Canada - Prince Edward Island Occupational Exposure Limits - Carcinogens	International FOSFA List of Banned Immediate Previous Cargoes
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	

## RESIDUAL OILS, PETROLEUM, HYDROTREATED.(64742-57-0.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Canada - Alberta Occupational Exposure Limits	Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits
Canada - British Columbia Occupational Exposure Limits	Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances
Canada - Manitoba Occupational Exposure Limits	Canada Categorization decisions for all DSL substances
Canada - Northwest Territories Occupational Exposure Limits	Canada Domestic Substances List (DSL)
Canada - Nova Scotia Occupational Exposure Limits	IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO
Canada - Prince Edward Island Occupational Exposure Limits	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	International FOSFA List of Banned Immediate Previous Cargoes

## PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE)(64742-65-0.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Canada - Alberta Occupational Exposure Limits	Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits
Canada - British Columbia Occupational Exposure Limits	Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances
Canada - Manitoba Occupational Exposure Limits	Canada Categorization decisions for all DSL substances
Canada - Northwest Territories Occupational Exposure Limits	Canada Domestic Substances List (DSL)
Canada - Nova Scotia Occupational Exposure Limits	Canada Forensic Identification Services Chemical Carcinogenicity Evaluation - Table 1 - Chemicals Considered for Assessment
Canada - Prince Edward Island Occupational Exposure Limits	IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO
Canada - Prince Edward Island Occupational Exposure Limits - Carcinogens	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	International FOSFA List of Banned Immediate Previous Cargoes

## NAPHTHENIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE)(64742-52-5.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Canada - Alberta Occupational Exposure Limits	Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits
Canada - British Columbia Occupational Exposure Limits	Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances
Canada - Manitoba Occupational Exposure Limits	Canada Categorization decisions for all DSL substances
Canada - Northwest Territories Occupational Exposure Limits	Canada Domestic Substances List (DSL)
Canada - Nova Scotia Occupational Exposure Limits	IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO
Canada - Prince Edward Island Occupational Exposure Limits	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
Canada - Prince Edward Island Occupational Exposure Limits - Carcinogens	International FOSFA List of Banned Immediate Previous Cargoes
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	

## LITHIUM HYDROXYSTEARATE(7620-77-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

## 2003 LONG-LIFE GREASE+MOS2 100g

Canada - British Columbia Occupational Exposure Limits	Canada Domestic Substances List (DSL)
Canada - Manitoba Occupational Exposure Limits	Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS (English)
Canada - Northwest Territories Occupational Exposure Limits	Canada Transport Dangerous Goods - Schedule 1
Canada - Nova Scotia Occupational Exposure Limits	Canada Transport Dangerous Goods - Schedule 3
Canada - Prince Edward Island Occupational Exposure Limits	International Air Transport Association (IATA) Dangerous Goods Regulations
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	International Maritime Dangerous Goods Requirements (IMDG Code)
Canada Categorization decisions for all DSL substances	United Nations Recommendations on the Transport of Dangerous Goods Model Regulations

**GRAPHITE(7782-42-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Canada - Alberta Occupational Exposure Limits	Canada - Quebec Permissible Exposure Values for Airborne Contaminants
Canada - British Columbia Occupational Exposure Limits	Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits
Canada - Manitoba Occupational Exposure Limits	Canada Categorization decisions for all DSL substances
Canada - Northwest Territories Occupational Exposure Limits	Canada Domestic Substances List (DSL)
Canada - Nova Scotia Occupational Exposure Limits	Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS (English)
Canada - Prince Edward Island Occupational Exposure Limits	

**LIMESTONE(1317-65-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Canada - Alberta Occupational Exposure Limits	Canada Categorization decisions for all DSL substances
Canada - British Columbia Occupational Exposure Limits	Canada Domestic Substances List (DSL)
Canada - Northwest Territories Occupational Exposure Limits	Canada Non-Domestic Substances List (NDSL)
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS (English)
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	GESAMP/EHS Composite List - GESAMP Hazard Profiles
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	IMO IBC Code Chapter 18: List of products to which the Code does not apply

**National Inventory Status**

National Inventory	Status
Australia - AICS	Yes
Canada - DSL	Yes
Canada - NDSL	No (paraffinic distillate, heavy, hydrotreated (severe); naphthenic distillate, heavy, hydrotreated (severe); residual oils, petroleum, solvent dewaxed; paraffinic distillate, heavy, solvent-dewaxed (severe); graphite; residual oils, petroleum, hydrotreated.; lithium hydroxystearate)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (graphite)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - ARIPS	No (paraffinic distillate, heavy, hydrotreated (severe))
Thailand - TECI	No (paraffinic distillate, heavy, hydrotreated (severe); naphthenic distillate, heavy, hydrotreated (severe); residual oils, petroleum, solvent dewaxed; paraffinic distillate, heavy, solvent-dewaxed (severe); residual oils, petroleum, hydrotreated.; lithium hydroxystearate)
<b>Legend:</b>	Yes = All CAS declared ingredients are on the inventory No = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

**SECTION 16 OTHER INFORMATION**

<b>Revision Date</b>	26/04/2019
<b>Initial Date</b>	29/01/2019

**SDS Version Summary**

Version	Issue Date	Sections Updated
4.1.1.1	18/04/2019	Acute Health (eye), Acute Health (inhaled), Acute Health (skin), Acute Health (swallowed), Advice to Doctor, Chronic Health, Classification, Disposal, Engineering Control, Environmental, Fire Fighter (fire/explosion hazard), First Aid (inhaled), First Aid (swallowed), Handling Procedure, Ingredients, Personal Protection (other), Personal Protection (Respirator), Personal Protection (eye), Personal Protection (hands/feet), Physical Properties, Spills (major), Spills (minor), Storage (storage incompatibility), Storage (storage requirement), Storage (suitable container)
5.1.1.1	26/04/2019	Ingredients

**Other information**

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

**2003 LONG-LIFE GREASE+MOS2 100g****Definitions and abbreviations**

PC — TWA: Permissible Concentration-Time Weighted Average  
PC — STEL: Permissible Concentration-Short Term Exposure Limit  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit,  
IDLH: Immediately Dangerous to Life or Health Concentrations  
OSF: Odour Safety Factor  
NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index

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