

## Spheerol LMM

**Section 1. Identification**

<b>Product name</b>	Spheerol LMM
<b>Product code</b>	451363-AU27
<b>SDS no.</b>	451363
<b>Use of the substance/mixture</b>	Grease for industrial applications For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Product type</b>	Grease
<b>Supplier</b>	Castrol New Zealand Limited 73 Remuera Road Newmarket Auckland, New Zealand  www.castrol.com/nz Technical Helpline 0800 10 40 60
<b>Emergency telephone number</b>	0800 243643 (0800 CHEMHELP) (NZ use only)
<b>New Zealand National Poisons Centre</b>	0800 764 766 National Poison Centre

**Section 2. Hazards identification**

**HSNO Classification** 9.1 - AQUATIC ECOTOXICITY - Category C

This material is classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

This material is not classified as DANGEROUS GOODS according to criteria in New Zealand Standard 5433:2012 Transport of Dangerous Goods on Land.

<b>Routes of entry</b>	Dermal contact. Eye contact. Inhalation.
<b>GHS label elements</b>	
<b>Signal word</b>	No signal word.
<b>Hazard statements</b>	Harmful to aquatic life with long lasting effects.
<b>Precautionary statements</b>	
<b>Prevention</b>	Avoid release to the environment.
<b>Response</b>	Not applicable.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Other hazards which do not result in classification</b>	Defatting to the skin. Note: High Pressure Applications Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. See 'Notes to physician' under First-Aid Measures, Section 4 of this Safety Data Sheet.

**Section 3. Composition/information on ingredients**

<b>Substance/mixture</b>	Mixture
Highly refined base oil (IP 346 DMSO extract < 3%). Proprietary performance additives. Thickening agent.	

## Section 3. Composition/information on ingredients

Ingredient name	% (w/w)	CAS number
Base oil - unspecified	≥75 - ≤90	-
Molybdenum disulphide	≤3	1317-33-5
Zinc alkyl dithiophosphate	≤1	68649-42-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

Inhalation	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
Ingestion	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Get medical attention if adverse health effects persist or are severe.
Skin contact	Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
Eye contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Check for and remove any contact lenses. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention.

### Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects. Note: High Pressure Applications Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

## Section 5. Firefighting measures

### Extinguishing media

Suitable	Use foam or all-purpose dry chemical to extinguish.
Not suitable	Do not use water jet.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products	Combustion products may include the following: metal oxide/oxides carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide) sulphur oxides (SO, SO <sub>2</sub> , etc.)
Hazchem code	Not available.
Special precautions for fire-fighters	No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### **For non-emergency personnel**

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Floors may be slippery; use care to avoid falling. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Contact emergency personnel.

#### **For emergency responders**

Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

#### **Environmental precautions**

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### Methods and material for containment and cleaning up

#### **Small spill**

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

#### **Large spill**

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Contaminated absorbent material may pose the same hazard as the spilt product. If emergency personnel are unavailable, contain spilt material. Suction or scoop the spill into appropriate disposal or recycling vessels, then cover spill area with oil absorbent. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

#### **Precautions for safe handling**

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid breathing vapour or mist. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Wash thoroughly after handling. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. See also Section 8 for additional information on hygiene measures.

#### **Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Base oil - unspecified	<b>NZ HSWA 2015 - GRWM 2016 (New Zealand).</b> WES-STEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/ Revised: 9/2010 Form: Mist WES-TWA: 5 mg/m <sup>3</sup> 8 hours. Issued/ Revised: 6/2016 Form: Mist
Molybdenum disulphide	<b>NZ HSWA 2015 - GRWM 2016 (New Zealand).</b> WES-TWA: 10 mg/m <sup>3</sup> , (measured as Mo) 8 hours. Issued/Revised: 1/1994

### Biological exposure indices

No exposure indices known.

### Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### Appropriate engineering controls

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye protection

Safety glasses with side shields.

#### Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

## Section 8. Exposure controls/personal protection

### Skin protection

Use of protective clothing is good industrial practice. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions. Respiratory protection should conform to AS/NZS 1715 and AS/NZS 1716.

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

#### Physical state

Grease

#### Colour

☒ Grey. [Dark]

#### Odour

Not available.

#### pH

☒ Not applicable.

#### Melting point/freezing point

Not available.

#### Boiling point, initial boiling point, and boiling range

Not available.

#### Drop Point

Not available.

#### Flash point

Open cup: >200°C (>392°F) [Cleveland]

#### Auto-ignition temperature

☒ Not applicable.

#### Vapour pressure

Not available.

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method

#### Relative vapour density

☒ Not applicable.

#### Density

<1000 kg/m<sup>3</sup> (<1 g/cm<sup>3</sup>)

#### Solubility(ies)

Media	Result
<input checked="" type="checkbox"/> Water	Not soluble

### Particle characteristics

#### Median particle size

☒ Not available.

## Section 10. Stability and reactivity

### Chemical stability

The product is stable.

### Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.  
Under normal conditions of storage and use, hazardous polymerisation will not occur.

### Conditions to avoid

Avoid all possible sources of ignition (spark or flame).

### Incompatible materials

Reactive or incompatible with the following materials: oxidising materials.

### Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on likely routes of exposure

Inhalation	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
Skin contact	Defatting to the skin. May cause skin dryness and irritation.
Eye contact	No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	No specific data.
Ingestion	No specific data.
Skin contact	Adverse symptoms may include the following: irritation dryness cracking
Eye contact	No specific data.

### Potential chronic health effects

General	No known significant effects or critical hazards.
Inhalation	Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.
Ingestion	Ingestion of large quantities may cause nausea and diarrhoea.
Skin contact	Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
Eye contact	Potential risk of transient stinging or redness if accidental eye contact occurs.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

## Section 12. Ecological information

Ecotoxicity	This material is harmful to aquatic life with long lasting effects.
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### Persistence and degradability

Expected to be biodegradable.

### Bioaccumulative potential

Not available.

### Mobility in soil

Mobility	Spillages are unlikely to penetrate the soil.
Soil/water partition coefficient ( $K_{oc}$ )	Not available.
Other ecological information	This product is unlikely to disperse in water.

## Section 13. Disposal considerations

Disposal methods	The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
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## Section 14. Transport information


Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
New Zealand Class	Not regulated.	-	-	-		-
ADG Class	Not regulated.	-	-	-		-
IATA Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-

PG\* : Packing group

## Section 15. Regulatory information

### New Zealand Regulatory Information

**HSNO Approval Number** HSR002606

**HSNO Group Standard**  Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard 2020

**HSNO Classification** 9.1 - AQUATIC ECOTOXICITY - Category C

### Regulation according to other foreign laws

**REACH Status** For the REACH status of this product please consult your company contact, as identified in Section 1.

**United States inventory (TSCA 8b)** All components are active or exempted.

**Australia inventory (AIC)** All components are listed or exempted.

**Canada inventory status** All components are listed or exempted.

**China inventory (IECSC)** All components are listed or exempted.

**Japan inventory (CSCL)** All components are listed or exempted.

**Korea inventory (KECI)** All components are listed or exempted.

**Philippines inventory (PICCS)** All components are listed or exempted.

**Taiwan Chemical Substances Inventory (TCSI)** Not determined.

## Section 16. Other information

### History

**Date of issue/Date of revision** 16 August 2023

**Date of previous issue** 30 October 2019.

**Version** 2

**Prepared by** Not available.

**Key to abbreviations** Varies = may contain one or more of the following 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1

### Notice to reader

 Indicates information that has changed from previously issued version.

Section 16. Other information

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

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