

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 31157

### MULTI MOLY LM 2

Date of the previous version: 12/02/2019

Revision Date: 06/01/2022

Version 12

#### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### 1.1. Product identifier

Product name	MULTI MOLY LM 2
Number	626
Substance/mixture	Mixture

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Lubricating grease.
-----------------	---------------------

##### 1.3. Details of the supplier of the safety data sheet

Supplier	<b>Finol Oils</b> 3 Stannaway Drive Crumlin D12 X2PN T 00353 01 4555484 <a href="mailto:technical@finol.ie">technical@finol.ie</a> - <a href="http://www.finol.ie">www.finol.ie</a>
----------	---

##### 1.4. Emergency telephone number

National Poisons Information Centre  
Beaumont Hospital , Beaumont Road, Dublin 9 01 8092166 00 353 1 8092566 Professionals 24/7

#### Section 2: HAZARDS IDENTIFICATION

##### 2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008 \*\*\*

*For the full text of the H-Statements mentioned in this Section, see Section 2.2.\*\*\**

##### Classification\*\*\*

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008\*\*\*

Serious eye damage/eye irritation - Category 2\*\*\* - (H319)\*\*\*

Chronic aquatic toxicity - Category 3\*\*\* - (H412)\*\*\*

SDS # : 31157

## MULTI MOLY LM 2

Revision Date: 2018-09-15

Version 12

### DIRECTIVE 67/548/EEC or 1999/45/EC

For the full text of the R-phrases mentioned in this Section, see Section 16.

The substance/mixture is classified as dangerous in accordance with Directive(s) 67/548/EEC with amendments and/or 1999/45/EC with amendments\*\*\*

#### Classification

R52/53 \*\*\*

### 2.2. Label elements

Labelled according to

REGULATION (EC) No 1272/2008\*\*\*



#### Signal Word

WARNING\*\*\*

#### Hazard Statements \*\*\*

H319 - Causes serious eye irritation

H412 - Harmful to aquatic life with long lasting effects\*\*\*

#### Precautionary statements

P280 - Wear eye protection/ face protection

P501 - Dispose of contents/container to an approved waste disposal plant\*\*\*

### 2.3. Other hazards

Physical-Chemical Properties

Contaminated surfaces will be extremely slippery.\*\*\*

Environmental properties

Should not be released into the environment.\*\*\*

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixture

Chemical Name	EC-No	REACH Registration Number	CAS-No	Weight %	Classification (Dir. 67/548)	GHS Classification
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts***	270-608-0	01-2119493628-22	68457-79-4	<1.5	Xi;R38-41 N;R51-53	Aquatic Chronic 2 (H411) Eye Dam. 1 (H318) Skin Irrit. 2 (H315)

SDS # : 31157

## MULTI MOLY LM 2

Revision Date: 06/01/2022

Version 12

Fatty acids, vegetable-oil, Me esters, sulfurized***	276-337-4	-***	72102-30-8	<1.5	N;R51-53	Aquatic Chronic 2 (H411)***
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts***	270-478-5	no data available	68442-22-8	<1.5	Xi;R36 N;R51-53	Eye Irrit. 2 (H319) Aquatic Chronic 2 (H411)

**Additional information** Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.\*\*\*

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

### Section 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

General advice	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.***
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.***
Skin contact	Remove contaminated clothing and shoes. Wash skin with soap and water. Wash contaminated clothing before reuse. High pressure jets may cause skin damage. Take victim immediately to hospital.***
Inhalation	Move to fresh air.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

Eye contact	Severely irritating to eyes.***
Skin contact	Not classified. May produce an allergic reaction.***
Inhalation	Not classified. Inhalation of vapours in high concentration may cause irritation of respiratory system.***
Ingestion	Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.***

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

Notes to physician	Treat symptomatically.
--------------------	------------------------

### Section 5: FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO <sub>2</sub> ). ABC powder. Foam. Water spray or fog.***
------------------------------	---

SDS # : 31157

**MULTI MOLY LM 2**

Revision Date: 06/01/2022

Version 12

**Unsuitable Extinguishing Media** Do not use a solid water stream as it may scatter and spread fire.\*\*\***5.2. Special hazards arising from the substance or mixture**

**Special hazard** Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.\*\*\*

**5.3. Precautions for fire-fighters**

**Special protective equipment for fire-fighters** Wear self-contained breathing apparatus and protective suit.

**Other information** Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.\*\*\*

**Section 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

**General Information** Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.\*\*\*

**6.2. Environmental precautions**

**General Information** Do not allow material to contaminate ground water system. Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained.\*\*\*

**6.3. Methods and materials for containment and cleaning up**

**Methods for cleaning up** Dam up. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Collect free product with suitable mechanical means. Keep in suitable, closed containers for disposal.\*\*\*

**6.4. Reference to other sections**

**Personal protective equipment** See Section 8 for more detail.

**Waste treatment** See section 13.

**Section 7: HANDLING AND STORAGE****7.1. Precautions for safe handling**

**Advice on safe handling** When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.\*\*\*

SDS # : 31157

## MULTI MOLY LM 2

Revision Date: 06/01/2022

Version 12

### Prevention of fire and explosion

Take precautionary measures against static discharges. Ground/bond containers, tanks and transfer/receiving equipment.

### Hygiene measures

Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.\*\*\*

### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures/Storage conditions

Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep container tightly closed. Preferably keep in the original container. Otherwise, reproduce all the statutory information from the labels onto the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture.\*\*\*

#### Materials to avoid

Strong oxidising agents.\*\*\*

### 7.3. Specific use(s)

#### Specific use(s)

No information available.\*\*\*

## Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

 Mineral oil mist:  
 USA: OSHA (PEL) TWA 5 mg/m<sup>3</sup>, NIOSH (REL) TWA 5 mg/m<sup>3</sup>, STEL 10 mg/m<sup>3</sup>, ACGIH (TLV) TWA 5 mg/m<sup>3</sup> (highly refined)\*\*\*

#### Legend

See section 16

#### DNEL Worker (Industrial/Professional)\*\*\*

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts*** 68457-79-4			11.87 mg/kg bw/day Dermal 8.13 mg/m <sup>3</sup> Inhalation	

#### DNEL Consumer\*\*\*

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts*** 68457-79-4			5.93 mg/kg bw/day Dermal 2.06 mg/m <sup>3</sup> Inhalation 0.24 mg/kg bw/day Oral	

SDS # : 31157

## MULTI MOLY LM 2

Revision Date: 06/01/2022

Version 12

Predicted No Effect Concentration (PNEC) \*\*\*

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts*** 68457-79-4	4 µg/l fw 4.6 µg/l mw 45 µg/l or***				100 mg/l	10.67 mg/kg food

### 8.2. Exposure controls

#### Occupational Exposure Controls

##### Engineering measures

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.\*\*\*

##### Personal protective equipment

###### General Information

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

###### Respiratory protection

None under normal use conditions. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P2. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.\*\*\*

###### Eye protection

If splashes are likely to occur, wear: Safety glasses with side-shields.\*\*\*

###### Skin and body protection

Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing.\*\*\*

###### Hand protection

Hydrocarbon-proof gloves: Fluorinated rubber, Nitrile rubber. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves.\*\*\*

#### Environmental exposure controls

##### General Information

The product should not be allowed to enter drains, water courses or the soil.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on basic physical and chemical properties

Appearance  
Colour

smooth  
light brown to dark brown

SDS # : 31157

## MULTI MOLY LM 2

Revision Date: 06/01/2022

Version 12

Physical state @20°C		solid	
Odour		No information available	
<b>Property</b>	<b>Values</b>	<b>Remarks</b>	<b>Method</b>
pH		Not applicable	
Boiling point/boiling range		Not applicable	
Flash point	> 200 °C > 392 °F		Cleveland Open Cup (COC) Cleveland Open Cup (COC)
Evaporation rate		Not applicable	
Flammability Limits in Air		No information available	
Vapour pressure		Not applicable	
Vapour density		Not applicable	
Density	870 kg/m <sup>3</sup>	@ 20 °C	
Water solubility		Insoluble	
Solubility in other solvents		No information available	
logPow		Not applicable	
Autoignition temperature		No information available	
Viscosity, kinematic		No information available	
Explosive properties	Not explosive		
Oxidising properties	no data available		
Possibility of hazardous reactions	no data available		

### 9.2. Other information

Penetration index	265 - 295 (1/10mm)	@ 25 °C	ASTM D 217
Drop point	> 185 °C		ISO 2176

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

General Information No information available.\*\*\*

### 10.2. Chemical stability

Stability Stable under recommended storage conditions.\*\*\*

### 10.3. Possibility of hazardous reactions

Hazardous reactions None under normal processing.\*\*\*

### 10.4. Conditions to Avoid

Conditions to Avoid Heat (temperatures above flash point), sparks, ignition points, flames, static electricity.\*\*\*

### 10.5. Incompatible materials

Materials to avoid Strong oxidising agents.\*\*\*

SDS # : 31157

## MULTI MOLY LM 2

Revision Date: 06/01/2022

Version 12

### 10.6. Hazardous Decomposition Products

**Hazardous Decomposition Products** None under normal use. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.\*\*\*

## Section 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute toxicity Local effects Product Information

Skin contact	. Not classified. May produce an allergic reaction.***
Eye contact	. Severely irritating to eyes.***
Inhalation	. Not classified. Inhalation of vapours in high concentration may cause irritation of respiratory system.***
Ingestion	. Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.***

#### Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts***	LD50 3600 mg/kg (Rat - OECD 401)	LD50 > 20000 mg/kg (Rabbit - OECD 402)	
Fatty acids, vegetable-oil, Me esters, sulfurized***	LD50 > 5000 mg/kg (Rat)***		

#### Sensitisation

**Sensitisation** Not classified as a sensitizer.

#### Specific effects

**Carcinogenicity** This product is not classified carcinogenic.  
**Mutagenicity** This product is not classified as mutagenic.  
**Reproductive toxicity** This product does not present any known or suspected reproductive hazards.

#### Repeated Dose Toxicity

**Subchronic Toxicity** No information available.

#### Target Organ Effects (STOT)

**Target Organ Effects (STOT)** No information available.

#### Other information



SDS # : 31157

## MULTI MOLY LM 2

Revision Date: 2020-10-23

Version 12

### Other adverse effects

Characteristic skin lesions (oil blisters) may develop following prolonged and repeated exposures (contact with contaminated clothing).\*\*\*

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Harmful to aquatic life with long lasting effects.\*\*\*

#### Acute aquatic toxicity - Product Information

No information available.

#### Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts*** 68457-79-4	EbL50 (72h) 21 mg/l (Scenedesmus subspicatus - OECD 201)	EC50 (48h) 23 mg/l (Daphnia magna - OECD 202)	LC50 (96h) 4.5 mg/l (Cyprinodon variegatus - OECD 203)	
Fatty acids, vegetable-oil, Me esters, sulfurized*** 72102-30-8		EC50 (48h) 8.8 mg/l (Daphnia magna - Limit test)***	LC50 (96h) > 8000 mg/l***	

#### Chronic aquatic toxicity - Product Information

No information available.

#### Chronic aquatic toxicity - Component Information

No information available.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts*** 68457-79-4		NOEC(21d) 0.8 mg/l Daphnia magna		

#### Effects on terrestrial organisms

No information available.

### 12.2. Persistence and Degradability

#### General Information

No information available.

### 12.3. Bioaccumulative potential

#### Product Information

No information available.

SDS # : 31157

## MULTI MOLY LM 2

Revision Date: 06/01/2022

Version 12

logPow Not applicable

### Component Information

Chemical Name	log Pow
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts*** - 68457-79-4	0.69
Fatty acids, vegetable-oil, Me esters, sulfurized*** - 72102-30-8	14***

### 12.4. Mobility in soil

**Soil** Given its physical and chemical characteristics, the product has no soil mobility.

**Air** Loss by evaporation is limited.

**Water** The product is insoluble and floats on water.

### 12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

### 12.6. Other adverse effects

General Information No information available.

## Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste from residues / unused products** Should not be released into the environment. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.\*\*\*

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of in accordance with local regulations.\*\*\*

**EWC Waste Disposal No** The following Waste Codes are only suggestions: 12 01 12. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.\*\*\*

## Section 14: TRANSPORT INFORMATION

**ADR/RID** not regulated

**IMDG/IMO** not regulated

**ICAO/IATA** not regulated

**ADN** not regulated

SDS # : 31157

**MULTI MOLY LM 2**

Revision Date: 06/01/2022

Version 12

**Section 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****European Union****International Inventories**      No information available\*\*\***Further information**

No information available\*\*\*

**15.2. Chemical Safety Assessment****Chemical Safety Assessment**      No information available**15.3. National regulatory information****The United Kingdom**

- Avoid exceeding occupational exposure limits (see section 8).

**Ireland**

- Avoid exceeding occupational exposure limits (see section 8).

**Section 16: OTHER INFORMATION****Full text of R-phrases referred to under sections 2 and 3**

R41 - Risk of serious damage to eyes

R38 - Irritating to skin

R36 - Irritating to eyes\*\*\*

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment\*\*\*

**Full text of H-Statements referred to under sections 2 and 3**

H319 - Causes serious eye irritation

H411 - Toxic to aquatic life with long lasting effects

H318 - Causes serious eye damage

H315 - Causes skin irritation

H412 - Harmful to aquatic life with long lasting effects\*\*\*

**Abbreviations, acronyms**

SDS # : 31157

**MULTI MOLY LM 2**

Revision Date: 06/01/2022

Version 12

## Legend Section 8

TWA: Time Weight Average

STEL: Short Time Exposure Limit

+ Sensitiser  
\*\* Hazard Designation  
M: Mutagen

\* Skin designation  
C: Carcinogen  
R: Toxic to reproduction

Revision Date: 06/01/2022

Revision Note \*\*\* Indicates updated section.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of Safety Data Sheet