



MPM Lithium Grease EP-0

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 22-12-2011 Revision date: 3-3-2023 Supersedes: 8-3-2019 version: 17.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : MPM Lithium Grease EP-0
Product code : 64000A
Type of product : Fats and Oils
Product group : Blend

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

1.2.1. Relevant identified uses

Main use category : Professional use, Consumer use, Industrial use
Industrial/Professional use spec : Non-dispersive use
Use of the substance/mixture : Manual activities involving hand contact
Function or use category : Lubricants and additives

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheet

MPM International Oil Company
Cyclotronweg 1
2629 HN Delft - Nederland
T +31 (0)15 2514030
info@mpmoil.nl - www.mpmoil.com

1.4. Emergency telephone number

Emergency number : +31 (0)15 2514030 (08.00 - 17.00 GMT+1)

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412
Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

CLP Signal word :

Warning

Contains :

Phosphoric acid ester amine salt; Dihydro-3-(tetrapropenyl)furan-2,5-dione

Hazard statements (CLP) :

H317 - May cause an allergic skin reaction.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, face protection.

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

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P262 - Do not get in eyes, on skin, or on clothing.

P501 - Dispose of contents/container in accordance with local and national regulations.

P102 - Keep out of reach of children.

Extra phrases :

May produce an allergic reaction.

2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Phosphoric acid ester amine salt	EC-No.: 931-384-6 REACH-no: 01-2119493620-38	≥ 0,1 – ≤ 1	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Dihydro-3-(tetrapropenyl)furan-2,5-dione	CAS-No.: 26544-38-7 EC-No.: 247-781-6 REACH-no: 01-2119979080-37	≥ 0,1 – ≤ 1	Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 4, H413
(Z)-octadec-9-enylamine	CAS-No.: 112-90-3 EC-No.: 204-015-5 EC Index-No.: 612-283-00-3	≥ 0,1 – ≤ 1	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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Specific concentration limits		
Name	Product identifier	Specific concentration limits
Phosphoric acid ester amine salt	EC-No.: 931-384-6 REACH-no: 01-2119493620-38	(9,39 ≤C < 100) Skin Sens. 1, H317 (50 ≤C < 100) Eye Dam. 1, H318 (50 ≤C < 100) Eye Irrit. 2, H319

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation	: Not required.
After skin contact	: Wash skin with mild soap and water.
After eye contact	: In case of eye contact, immediately rinse with clean water for 10-15 minutes.
After ingestion	: Do NOT induce vomiting. Rinse mouth out with water. Get immediate medical advice/attention.

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

After inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
After skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.
After eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
After ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Powder, alcohol-resistant foam, water spray, carbon dioxide.
Unsuitable extinguishing media	: High power water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: On heating/burning: release of (highly) toxic gases/vapours e.g.: carbon monoxide - carbon dioxide.
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5.3. Advice for firefighters

Precautionary measures fire	: Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Self-contained breathing apparatus with an air line.
Other information	: Use a water spray to cool exposed surfaces and to protect fire-fighters.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: May be dangerously slippery if spilled.
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6.1.1. For non-emergency personnel

No additional information available.

6.1.2. For emergency responders

No additional information available.

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6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Large spills: scoop solid spill into closing containers. Clean up with absorbent material (for example sand, sawdust, neutral absorbent granule, silica gel).
Other information : Can be slippery on hard, smooth walking area.

6.4. Reference to other sections

Information on personal protective equipment - see Chapter 8. Information on safe handling - see Section 7.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Never use pressure to empty container.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ensure adequate ventilation, especially in confined areas.
Storage conditions : Keep container tightly closed. Store in a dry place. Keep cool.
Incompatible products : Oxidizing agent. Strong bases. Strong acids.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

No additional information available.

8.1.2. Recommended monitoring procedures

No additional information available.

8.1.3. Air contaminants formed

No additional information available.

8.1.4. DNEL and PNEC

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DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	So far, no national limits set

Additional information : To date, no national limit values exist.

8.1.5. Control banding

No additional information available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Technical measures:

Does not require any specific or particular technical measures.

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8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Safety glasses.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Hand protection:

None under normal use

8.2.2.3. Respiratory protection

Respiratory protection:

No personal breathing protective equipment is normally required

8.2.2.4. Thermal hazards

No additional information available.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Dispose of in accordance with relevant local regulations.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Dark brown.
Appearance	: Paste.
Odour	: Characteristic.
Odour threshold	: Not available
Melting point	: > 170 °C
Freezing point	: > 170 °C
Boiling point	: > 300 °C
Flammability	: Not available
Explosive limits	: Not applicable
Lower explosive limit (LEL)	: Not applicable
Upper explosive limit (UEL)	: Not applicable
Flash point	: > 200 °C
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Water: Insoluble
Log Kow	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: ca. 887 kg/m ³
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available

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Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available.

9.2.2. Other safety characteristics

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Oxidizing agent. Strong bases. Strong acids.

10.6. Hazardous decomposition products

On burning: release of harmful/irritant gases/vapours e.g.: carbon monoxide - carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Phosphoric acid ester amine salt	
ATE CLP (oral)	500 mg/kg bodyweight
Dihydro-3-(tetrapropenyl)furan-2,5-dione (26544-38-7)	
LD50 oral rat	2900 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	5,3 mg/l/4h
ATE CLP (oral)	2900 mg/kg bodyweight
ATE CLP (dust,mist)	5,3 mg/l/4h
(Z)-octadec-9-enylamine (112-90-3)	
ATE CLP (oral)	500 mg/kg bodyweight
Skin corrosion/irritation	: Not classified.
Serious eye damage/irritation	: Not classified

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Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

(Z)-octadec-9-enylamine (112-90-3)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure : Not classified

Phosphoric acid ester amine salt

NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight/day @28d (OECD 407)
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(Z)-octadec-9-enylamine (112-90-3)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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Aspiration hazard : Not classified

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2. Other information

Potential adverse human health effects and symptoms : According to the Preparation Directive 1999/45/EC this product is classified as not dangerous. This mixture is classified as not hazardous according to Regulation (EC) 1272/2008 [GHS].

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

Phosphoric acid ester amine salt

LC50 fish 1	24 mg/l @4d Oncorhynchus mykiss
LC50 fish 2	8,5 mg/l Pimephales promelas @4d
EC50 Daphnia 1	91,4 mg/l Daphnia magna
EC50 72h - Algae [1]	6,4 mg/l Selenastrum capricornutum
NOEC chronic fish	3,2 mg/l Oncorhynchus mykiss @4d
NOEC chronic crustacea	0,12 mg/l Daphnia magna @2d
NOEC chronic algae	1,7 mg/l Selenastrum capricornutum @4d

12.2. Persistence and degradability

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Persistence and degradability	Not soluble in water, so only minimally biodegradable.
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Phosphoric acid ester amine salt

BOD (% of ThOD)	3,6 % ThOD @28d inherent sediment
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Phosphoric acid ester amine salt

Biodegradation	7,4 % Sturm (28d) OECD TG 301B
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(Z)-octadec-9-enylamine (112-90-3)

Biodegradation	66 % OECD 301B @ 28d
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12.3. Bioaccumulative potential

No additional information available.

12.4. Mobility in soil

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Soil	Prevent soil and water pollution.
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12.5. Results of PBT and vPvB assessment

No additional information available.

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The product does not contain any substances with endocrine disrupting properties.

12.7. Other adverse effects

No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Additional information : This material and its container must be disposed of in a safe way, and as per local legislation.
European List of Waste (LoW) code : 20 01 26* - oil and fat other than those mentioned in 20 01 25

SECTION 14: Transport information

In accordance with ADR / IMDG

14.1. UN number or ID number

UN-No. : Not applicable
UN-No. (IMDG) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable

14.3. Transport hazard class(es)

ADR
Transport hazard class(es) (ADR) : Not applicable

IMDG
Transport hazard class(es) (IMDG) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable

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14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

No data available.

Transport by sea

No data available.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)
Contains no substance(s) listed on the REACH Candidate List
Contains no substance(s) listed on REACH Annex XIV (Authorisation List)
Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)
Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

15.1.2. National regulations

No additional information available.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Indication of changes

Section	Changed item	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
	Adverse health effects caused by endocrine disrupting properties	Added	
	Adverse effects on the environment caused by endocrine disrupting properties	Added	
	Type of product	Modified	
1.1	Product group	Added	
1.1	Trade name	Added	
1.2	Use of the substance/mixture	Added	
1.2	Industrial/Professional use spec	Added	
1.2	Main use category	Modified	
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	

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Indication of changes			
Section	Changed item	Change	Comments
2.2	Precautionary statements (CLP)	Added	
2.2	CLP Signal word	Added	
2.2	Hazard pictograms (CLP)	Added	
2.2	Hazard statements (CLP)	Modified	
3	Composition/information on ingredients	Modified	
4.1	After skin contact	Modified	
4.1	After inhalation	Modified	
4.1	After ingestion	Modified	
4.1	After eye contact	Modified	
4.2	After ingestion	Added	
4.2	After inhalation	Added	
4.2	After skin contact	Added	
4.2	After eye contact	Added	
8.2	Personal protective equipment	Added	
12.2	Persistence and degradability	Modified	
12.4	Soil	Modified	
13.1	Additional information	Added	
13.1	European List of Waste (LoW) code	Added	

Full text of H- and EUH-statements	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

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Full text of H- and EUH-statements

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SDS MPM REACH

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.