



MPM LHM Plus

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.
Issue date: 16-12-2024 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Trade name : MPM LHM Plus
Product code : 25000
Type of product : Other engine, gear and lubricating oils.
Product group : Mixture

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
Used in closed systems
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

Manufacturer

MPM International Oil Company BV
Cyclotronweg 1
NL- 2629 HN Delft – Zuid Holland
Nederland
T +31 (0)15 2514030 (08.00 - 17.00 GMT+1)
info@mpmoil.com - www.mpmoil.com

1.4. Emergency telephone number

Country/Area	Organisation	Emergency number
United Kingdom	Guy's & St Thomas' Poisons Unit. Medical Toxicology Unit. Guy's & St Thomas' Hospital Trust. Avonley Road SE14 5ER.	+44 20 7188 7188

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to GB CLP (SI 2019:720 as amended)

Aspiration hazard, Category 1 H304
Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to GB CLP (SI 2019:720 as amended)

Hazard pictograms (GHS UK) :



GHS08

Signal word (GHS UK)

: DANGER.

MPM LHM Plus

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

Contains	: Distillates (petroleum), hydrotreated light paraffinic, Baseoil; Distillates (petroleum), hydrotreated middle
Hazard statements (GHS UK)	: H304 - May be fatal if swallowed and enters airways. H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (GHS UK)	: P102 - Keep out of reach of children. P273 - Avoid release to the environment. P301+P310+P331 - IF SWALLOWED: Immediately call a doctor, a POISON CENTER. Do NOT induce vomiting. P501 - Dispose of contents/container in accordance with local and national regulations.

2.3. Other hazards

Other hazards not contributing to the classification : If spilled, may cause the floor to be slippery. Forms thin oil film on surface of water.

Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of UK REACH regulation, in accordance with Annex XIII	Distillates (petroleum), hydrotreated light paraffinic, Baseoil (64742-55-8), Tris(methylphenyl) phosphate (1330-78-5), 2,6-di-tert-butylphenol (128-39-2), naphthalene (91-20-3), Distillates (petroleum), hydrotreated middle (64742-46-7)
Substance(s) not meeting the vPvB criteria of UK REACH regulation, in accordance with Annex XIII	Distillates (petroleum), hydrotreated light paraffinic, Baseoil (64742-55-8), Tris(methylphenyl) phosphate (1330-78-5), 2,6-di-tert-butylphenol (128-39-2), naphthalene (91-20-3), Distillates (petroleum), hydrotreated middle (64742-46-7)

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Highly refined mineral oil, contains <3% (w/w) DMSO extract, according to IP346

Name	Product identifier	%	Classification according to GB CLP (SI 2019:720 as amended)
Distillates (petroleum), hydrotreated middle (Note N)	CAS-No.: 64742-46-7 EC-No.: 934-954-2 UK Index-No.: 649-221-00-X	50 – 75	Asp. Tox. 1, H304
Distillates (petroleum), hydrotreated light paraffinic, Baseoil (Note L)	CAS-No.: 64742-55-8 EC-No.: 265-158-7 UK Index-No.: 649-468-00-3	25 – 50	Asp. Tox. 1, H304
2,6-di-tert-butylphenol	CAS-No.: 128-39-2 EC-No.: 204-884-0	0 – 1	Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Tris(methylphenyl) phosphate	CAS-No.: 1330-78-5 EC-No.: 809-930-9	0 – 0,3	Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
naphthalene	CAS-No.: 91-20-3 EC-No.: 202-049-5 UK Index-No.: 601-052-00-2	0 – 0,1	Carc. 2, H351 Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Note L: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

MPM LHM Plus

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

Note N: The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

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	: Water spray, powder, foam and CO ₂ .
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Precautionary measures fire	: Exercise caution when fighting any chemical fire.
Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: If spilled, may cause the floor to be slippery.
------------------	---

6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Safety glasses.
Emergency procedures	: Do not breathe vapours.

6.1.2. For emergency responders

Protective equipment	: Wear suitable protective clothing and gloves. Safety glasses.
----------------------	---

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

MPM LHM Plus

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Detergent. Clean up any spills as soon as possible, using an absorbent material to collect it.
- Other information : Spill area may be slippery. Use suitable disposal containers.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Avoid all unnecessary exposure. Both local exhaust and general room ventilation are usually required.
- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Handling temperature : < 40 °C
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Store in a closed container.
- Storage conditions : Keep container closed when not in use.
- Storage temperature : ≤ 40 °C
- Storage area : Store in dry, well-ventilated area.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

naphthalene (91-20-3)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m ³)	50 mg/m ³
WEL STEL (OEL STEL)*	150 mg/m ³
	*STEL value is calculated based on the TWA limit

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

- Additional information : Based on ACGIH TLV, a concentration of 5 mg/m³ oilspray (TWA, 8 hour workday) is recommended.

8.1.5. Control banding

No additional information available

MPM LHM Plus

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Technical measures:

No additional information available.

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 goggles

8.2.2.2. Skin protection

Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use

Hand protection:

Protective gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	> 0,4		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Oily liquid.
Odour	: Characteristic.
Odour threshold	: Not available
pH	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: > 316 °C
Flash point	: > 105 °C ASTM D 93
Flammability (solid, gas)	: Not available
Lower explosion limit	: 7 vol %
Upper explosion limit	: 9 vol %
Vapour pressure	: < 0,013 kPa
Vapour pressure at 50°C	: Not available
Relative vapour density at 20°C	: Not available
Relative density	: 0,831 (≥ 0,841) @ 15°C (ISO 12185)

MPM LHM Plus

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

Density	: 837 (831 – 841) kg/m ³ @ 15°C (ISO 12185)
Solubility	: Slightly soluble, the product remains on the water surface.
Log Kow	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Viscosity, kinematic	: 18 (17 – 19) mm ² /s @ 40°C (ISO 3104)
Explosive properties	: Not available

9.2. Other information

Particle characteristics	: Not applicable
--------------------------	------------------

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Strong oxidizing agent.

10.6. Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, nitrogen oxides (NOx), sulphur compounds.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met.)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met.)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met.)

Distillates (petroleum), hydrotreated light paraffinic, Baseoil (64742-55-8)	
LD50 oral rat	> 5000 mg/kg OECD 420
LD50 dermal rabbit	> 5000 mg/kg OECD 402
LC50 Inhalation - Rat	> 5 mg/l/4h OECD 403
Tris(methylphenyl) phosphate (1330-78-5)	
LD50 oral rat	3700 mg/kg
LD50 dermal rabbit	10000 mg/kg
LC50 Inhalation - Rat	11,1 mg/l
2,6-di-tert-butylphenol (128-39-2)	
LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rabbit	> 10000 mg/kg

MPM LHM Plus

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

naphthalene (91-20-3)	
LD50 oral rat	> 490 mg/kg
LD50 dermal rat	> 2200 mg/kg
LC50 Inhalation - Rat	> 500 mg/m³ 8h

Distillates (petroleum), hydrotreated middle (64742-46-7)	
LD50 oral rat	> 5000 mg/kg Guideline OECD 401
LD50 dermal rabbit	> 2000 mg/kg Guideline OECD 402
LC50 Inhalation - Rat	20,1 mg/l 4hr.

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met.)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met.)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met.)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met.)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met.)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met.)

Distillates (petroleum), hydrotreated middle (64742-46-7)	
NOAEL (animal/male, F0/P)	≥ 3000 mg/kg bodyweight
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met.)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met.)

2,6-di-tert-butylphenol (128-39-2)	
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight
Aspiration hazard	: May be fatal if swallowed and enters airways.

MPM LHM Plus	
Viscosity, kinematic	18 (17 – 19) mm²/s @ 40°C (ISO 3104)

Other information

Endocrine disrupting properties

No additional information available

Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met.)
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

Distillates (petroleum), hydrotreated light paraffinic, Baseoil (64742-55-8)	
EC50 Daphnia 1	> 10000 mg/l OECD 202
EC50 other aquatic organisms 1	> 100 mg/l OECD 201
EC50 96h - Algae [1]	> 100 mg/l OECD 203
NOEC chronic fish	> 1000 mg/l 14/21d (Oncorhynchus mykiss - SQAR Petrotox)
NOEC chronic crustacea	10 mg/l OECD 211

MPM LHM Plus

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

Tris(methylphenyl) phosphate (1330-78-5)	
LC50 fish 1	0,6 mg/l
EC50 Daphnia 1	0,14 mg/l
EC50 72h - Algae [1]	0,4 mg/l <i>Desmodesmus subspicatus</i>
NOEC chronic fish	0,01 mg/l 28d (<i>Oncortynchus mykiss</i>)
2,6-di-tert-butylphenol (128-39-2)	
LC50 fish 1	1 mg/l
EC50 Daphnia 1	0,45 mg/l 48h
EC50 72h - Algae [1]	1,2 mg/l
LOEC (chronic)	0,086 mg/l <i>Daphnia magna</i> @21d
NOEC (chronic)	0,035 mg/l <i>Daphnia magna</i> @21d
NOEC chronic fish	0,3 mg/l 28d
NOEC chronic crustacea	0,035 mg/l 21d
naphthalene (91-20-3)	
LC50 fish 1	≈ 1,6 mg/l <i>Oncorhynchus mykiss</i>
LC50 other aquatic organisms 2	2,16 mg/l @48h <i>Daphnia magna</i>
EC50 Daphnia 1	≈ 1,96 mg/l @48h <i>Daphnia magna</i>
EC50 other aquatic organisms 1	≈ 0,93 mg/l 30 min
EC50 other aquatic organisms 2	> 20 mg/l 18h
Distillates (petroleum), hydrotreated middle (64742-46-7)	
EC50 72h - Algae [1]	22 mg/l
12.2. Persistence and degradability	
MPM LHM Plus	
Persistence and degradability	Not soluble in water, so only minimally biodegradable.
Distillates (petroleum), hydrotreated light paraffinic, Baseoil (64742-55-8)	
Persistence and degradability	Rapidly degradable
Tris(methylphenyl) phosphate (1330-78-5)	
Persistence and degradability	Rapidly degradable
2,6-di-tert-butylphenol (128-39-2)	
Persistence and degradability	Rapidly degradable
Biodegradation	≥ 12 – ≤ 24 % @28d
naphthalene (91-20-3)	
Persistence and degradability	Rapidly degradable
Distillates (petroleum), hydrotreated middle (64742-46-7)	
Persistence and degradability	Readily biodegradable.

MPM LHM Plus

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

12.3. Bioaccumulative potential

2,6-di-tert-butylphenol (128-39-2)

Log Pow	4,5
---------	-----

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component

Distillates (petroleum), hydrotreated light paraffinic, Baseoil (64742-55-8)	This substance does not meet the PBT criteria of UK REACH regulation, annex XIII This substance does not meet the vPvB criteria of UK REACH regulation, annex XIII
Tris(methylphenyl) phosphate (1330-78-5)	This substance does not meet the PBT criteria of UK REACH regulation, annex XIII This substance does not meet the vPvB criteria of UK REACH regulation, annex XIII
2,6-di-tert-butylphenol (128-39-2)	This substance does not meet the PBT criteria of UK REACH regulation, annex XIII This substance does not meet the vPvB criteria of UK REACH regulation, annex XIII
naphthalene (91-20-3)	This substance does not meet the PBT criteria of UK REACH regulation, annex XIII This substance does not meet the vPvB criteria of UK REACH regulation, annex XIII
Distillates (petroleum), hydrotreated middle (64742-46-7)	This substance does not meet the PBT criteria of UK REACH regulation, annex XIII This substance does not meet the vPvB criteria of UK REACH regulation, annex XIII

12.6. Other adverse effects

Ozone : Not classified (Based on available data, the classification criteria are not met.)

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.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated for transport				
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
Transport document description				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

MPM LHM Plus

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

ADR	IMDG	IATA	ADN	RID
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. National regulations

UK REACH Annex XVII (Restriction List)

This product contains no substance(s) listed on UK REACH Annex XVII (Restriction List) equal to or above the level of SDS disclosure

UK REACH Annex XIV (Authorisation List)

This product contains no substance(s) listed on UK REACH Annex XIV (Authorisation List) equal to or above the 0.1% level of disclosure

UK REACH Candidate List (SVHC)

This product contains no substance(s) listed on the UK REACH Candidate List (SVHC) above the 0.1% level of disclosure

GB PIC Regulation (Prior Informed Consent)

This product contains no substance(s) listed on the GB PIC List equal to or above the level of SDS disclosure

POP Regulation (Persistent Organic Pollutants)

This product contains no substance(s) listed on the GB POP List equal to or above the level of SDS disclosure

Ozone Regulation (S.I. No. 168 of 2015)

This product contains no substance(s) listed on the GB Ozone Depletion List equal to or above the level of SDS disclosure

Control of Poisons and Explosives Precursors Act

This product contains no substance(s) listed as a reportable poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a reportable explosive precursor on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This substance is not listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations

Drug Precursors Regulation (EC 273/2004)

This product contains no substance(s) listed on the GB Drug Precursors List equal to or above the level of SDS disclosure

MPM LHM Plus

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

15.1.2. Other Information

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

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 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet (SDS), UK

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.