

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 3-1-2020 Revision date: 24-2-2023 Supersedes: 26-10-2020 version: 2.0

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

1.1. Product identifier

Product form : Mixture

Trade name : MPM Marine Engine Oil 2-Stroke Detroit Diesel SAE 40

Product code : BL001000

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
: Lubricants and additives

1.2.2. Uses advised against

Function or use category

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

MPM International Oil Company BV Cyclotronweg 1 2629 HN Delft - Nederland T +31 (0)15 2514030

info@mpmoil.com - www.mpmoil.com

1.4. Emergency telephone number

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

| Country | Organisation/Company | 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 | +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]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Precautionary statements (CLP) : P102 - Keep out of reach of children.

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EUH-statements

: EUH208 - Contains: Longchain calcium alkaryl sulfonate, Alkyl (C18-C28) toluene sulfonic acid, calcium salts, borated.. May produce an allergic reaction.

EUH210 - Safety data sheet available on request.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

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 substance(s) are 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

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

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------|
| Zinc dialkyl dithiophosphate | CAS-No.: 68649-42-3 EC-No.: 272-028-3 REACH-no: 10-2119657973- 23 | ≥ 0,1 - ≤ 0,99 | Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411 |
| Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts | CAS-No.: 68784-31-6 EC-No.: 272-238-5 REACH-no: 01-2119657973- 23 | ≥ 0,1 - ≤ 0,99 | Eye Dam. 1, H318 Aquatic Chronic 2, H411 |
| Longchain calcium alkaryl sulfonate | CAS-No.: 722503-68-6 EC-No.: 682-816-2 | ≥ 0,1 – ≤ 0,99 | Skin Sens. 1, H317 |
| Alkyl (C18-C28) toluene sulfonic acid, calcium salts, borated. | EC-No.: 953-650-0 | ≥ 0,1 – ≤ 0,99 | Skin Sens. 1B, H317 Repr. 2, H361d |

| Specific concentration limits | | | |
|----------------------------------------------------------------|--------------------|----------------------------------|--|
| Name | Product identifier | Specific concentration limits | |
| Alkyl (C18-C28) toluene sulfonic acid, calcium salts, borated. | EC-No.: 953-650-0 | (17,15 ≤ C < 100) Repr. 2, H361d | |

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.

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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 CO2. 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.

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

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.

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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

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

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

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

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| Hand protection | | | | | |
|-----------------|----------------------|-------------------|----------------|-------------|------------|
| Туре | 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. Colour Amber. Appearance Oily liquid. Odour Characteristic. Odour threshold : Not available Melting point : Not available Freezing point : Not available Boiling point Not available Flammability : Not available **Explosive limits** : Not available Lower explosion limit : Not available Upper explosion limit : Not available

Flash point : > 200 °C @ ASTM D92

Auto-ignition temperature : Not available

Decomposition temperature : Not available

pH : Not available

Viscosity, kinematic : 130 mm²/s @ 40°C

Solubility : Slightly soluble, the product remains on the water surface.

Log Kow : Not available : Not available Vapour pressure Vapour pressure at 50°C : Not available Density : 894 kg/m³ @ 15°C : Not available Relative density Relative vapour density at 20°C : Not available : Not applicable Particle size Particle size distribution : Not applicable Particle shape : Not applicable : Not applicable Particle aspect ratio : Not applicable Particle aggregation state Particle agglomeration state : Not applicable Particle specific surface area : Not applicable Particle dustiness : Not applicable

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

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SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No naked flames, sparks, and do not smoke.

10.5. Incompatible materials

Strong oxidizing agent. Acids and bases.

10.6. Hazardous decomposition products

None under normal conditions.

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

| Zinc dialkyl dithiophosphate (68649-42-3) | |
|-------------------------------------------|-----------------------|
| LD50 oral rat | 2230 mg/kg |
| LD50 dermal rat | > 2000 mg/kg |
| ATE CLP (oral) | 2230 mg/kg bodyweight |
| Skin corrosion/irritation | · Not classified |

Skin corrosion/irritation Serious eye damage/irritation : Not classified Respiratory or skin sensitisation : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified Reproductive toxicity : Not classified : Not classified STOT-single exposure STOT-repeated exposure : Not classified Aspiration hazard : Not classified

MPM Marine Engine Oil 2-Stroke Detroit Diesel SAE 40

Viscosity, kinematic 130 mm²/s @ 40°C

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 substance(s) are 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 %

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11.2.2. Other information

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term

: Not classified

(acute

Hazardous to the aquatic environment, long-term

: Not classified

(chronic)

| Zinc dialkyl dithiophosphate (68649-42-3) | | |
|----------------------------------------------------------------|---------------------------|--|
| LC50 fish 1 | > 10 (1 – 5) mg/l @ 96 h | |
| EC50 Daphnia 1 | 1,5 (1 – 1,5) mg/l @ 48 h | |
| EC50 72h - Algae [1] | 1,5 mg/l | |
| NOEC (acute) | 1 mg/l @ 96 h (Fish) | |
| Alkyl (C18-C28) toluene sulfonic acid, calcium salts, borated. | | |
| EC50 other aquatic organisms 1 1,2 mg/l | | |

12.2. Persistence and degradability

| MPM Marine Engine Oil 2-Stroke Detroit Diesel SAE 40 | | |
|--------------------------------------------------------------------------------------|--|--|
| Persistence and degradability Not soluble in water, so only minimally biodegradable. | | |
| Zinc dialkyl dithiophosphate (68649-42-3) | | |
| Persistence and degradability Not readily biodegradable. | | |

12.3. Bioaccumulative potential

| Zinc dialkyl dithiophosphate (68649-42-3) | |
|-------------------------------------------|------------------|
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

| MPM Marine Engine Oil 2-Stroke Detroit Diesel SAE 40 | | |
|------------------------------------------------------|--|--|
| Soil Prevent soil and water pollution. | | |
| Zinc dialkyl dithiophosphate (68649-42-3) | | |
| Soil No data available. | | |

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

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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, EC 2000/532) : 13 02 05* - mineral-based non-chlorinated engine, gear and lubricating oils

SECTION 14: Transport information

In accordance with ADR / IMDG

14.1. UN number or ID number

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

14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

ADR

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

IMDG

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

14.4. Packing group

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

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

Not regulated

Transport by sea

Not regulated

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)

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15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

| Indication of char | nges | | |
|--------------------|------------------------------------------------------------------------------|----------|----------|
| Section | Changed item | Change | Comments |
| | Supersedes | Modified | |
| | Adverse health effects caused by endocrine | Added | |
| | disrupting properties | | |
| | Revision date | Modified | |
| | Adverse effects on the environment caused by endocrine disrupting properties | Added | |
| | Comments (on top of composition) | Added | |
| 1.1 | Trade name | Added | |
| 1.2 | Function or use category | Added | |
| 1.2 | Main use category | Added | |
| 1.2 | Industrial/Professional use spec | Added | |
| 2.1 | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Removed | |
| 2.2 | Precautionary statements (CLP) | Added | |
| 2.2 | EUH-statements | Added | |
| 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 skin contact | Added | |
| 4.2 | After inhalation | Added | |
| 4.2 | After ingestion | Added | |
| 4.2 | After eye contact | Added | |
| 5.1 | Suitable extinguishing media | Modified | |
| 5.1 | Unsuitable extinguishing media | Modified | |
| 5.3 | Precautionary measures fire | Added | |
| 5.3 | Protection during firefighting | Added | |
| 5.3 | Firefighting instructions | Added | |
| 6.1 | Emergency procedures | Added | |
| 6.1 | Protective equipment | Modified | |
| 6.1 | Protective equipment | Modified | |
| 6.1 | General measures | Modified | |

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| Indication of changes | | | |
|-----------------------|-------------------------------------------|----------|----------|
| Section | Changed item | Change | Comments |
| 6.2 | Environmental precautions | Modified | |
| 6.3 | For containment | Added | |
| 6.3 | Methods for cleaning up | Modified | |
| 6.3 | Other information | Modified | |
| 7.1 | Additional hazards when processed | Added | |
| 7.1 | Handling temperature | Added | |
| 7.1 | Hygiene measures | Modified | |
| 7.1 | Precautions for safe handling | Modified | |
| 7.2 | Storage conditions | Added | |
| 7.2 | Storage area | Added | |
| 7.2 | Storage temperature | Modified | |
| 7.2 | Technical measures | Modified | |
| 8.1 | Additional information | Added | |
| 8.2 | Personal protective equipment | Added | |
| 8.2 | Respiratory protection | Modified | |
| 8.2 | Hand protection | Modified | |
| 8.2 | Skin and body protection | Modified | |
| 8.2 | Technical measures | Modified | |
| 9.1 | Solubility | Added | |
| 9.1 | Viscosity, kinematic | Modified | |
| 9.1 | Odour | Modified | |
| 9.1 | Flash point | Modified | |
| 9.1 | Appearance | Modified | |
| 9.1 | Density | Modified | |
| 9.1 | Colour | Modified | |
| 10.1 | Reactivity | Modified | |
| 10.2 | Chemical stability | Modified | |
| 10.4 | Conditions to avoid | Modified | |
| 10.5 | Incompatible materials | Modified | |
| 10.6 | Hazardous decomposition products | Added | |
| 12.4 | Soil | Added | |
| 13.1 | Additional information | Added | |
| 13.1 | European List of Waste (LoW, EC 2000/532) | Modified | |

| Full text of H- and EUH | I-statements |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Aquatic Chronic 2 | Hazardous to the aquatic environment – Chronic Hazard, Category 2 |
| EUH208 | Contains: Longchain calcium alkaryl sulfonate, Alkyl (C18-C28) toluene sulfonic acid, calcium salts, borated May produce an allergic reaction. |

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| Full text of H- and EUH-statements | |
|------------------------------------|--------------------------------------------------|
| EUH210 | Safety data sheet available on request. |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H361d | Suspected of damaging the unborn child |
| H411 | Toxic to aquatic life with long lasting effects. |
| Repr. 2 | Reproductive toxicity, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| Skin Sens. 1B | Skin sensitisation, category 1B |

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.