



Industrial Gear Oil 460

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 30-9-2021 Revision date: 30-9-2021 Supersedes: 29-9-2014 version: 5.0

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

1.1. Product identifier

Product form : Mixture
Product name : Industrial Gear Oil 460
Product code : 39000G
Type of product : Other engine, gear and lubricating 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, Industrial use, Consumer 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

MPM International Oil Company
Cyclotronweg 1
2629 HN Delft Delft - Nederland
T +31 (0)15 2514030 - F +31 (0)15 2514031
support@mpmoil.nl - www.mpmoil.nl

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]

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]

EUH-statements : EUH208 - Contains Amines, C12-14-tert-alkyl, Polysulphides, di-tert-Bu. May produce an allergic reaction.
EUH210 - Safety data sheet available on request.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Polysulphides, di-tert-Bu	(CAS-No.) 68937-96-2 (EC-No.) 273-103-3 (REACH-no) 01-2119540515-43	≥ 0,1 – ≤ 0,99	Skin Sens. 1B, H317 Aquatic Chronic 3, H412
Amines, C12-14-tert-alkyl	(EC-No.) 931-384-6 (REACH-no) 01-2119493620-38	≥ 0,1 – ≤ 0,24	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 2, H411
(Z)-N-9-octadecenyl-1,3-diaminopropane	(CAS-No.) 7173-62-8 (EC-No.) 230-528-9 (REACH-no) 01-2119487002-46	≥ 0,01 – ≤ 0,024	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT RE 1, H372 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Amines, C12-14-tert-alkyl	(EC-No.) 931-384-6 (REACH-no) 01-2119493620-38	(50 ≤C < 100) Eye Dam. 1, H318

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. Immediately call a POISON CENTER/doctor.

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

6.1.1. For non-emergency personnel

Protective equipment	: Wear suitable protective clothing and gloves.
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6.1.2. For emergency responders

Protective equipment	: Wear suitable protective clothing and gloves.
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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 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 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

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

8.2. Exposure controls

Personal protective equipment:

Gloves. Safety glasses.

Hand protection:

Protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	> 0,35		EN ISO 374

Eye protection:

Safety goggles

Skin and body protection:

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

Respiratory protection:

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

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Oily liquid.
- Colour : Amber.
- Odour : Characteristic.

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Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: -18 °C
Boiling point	: No data available
Flash point	: > 250 °C @ ASTM D92
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 905 kg/m ³ @ 15°C
Solubility	: Slightly soluble, the product remains on the water surface.
Log Pow	: No data available
Viscosity, kinematic	: 460 mm ² /s @ 40°C
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

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 toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
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
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Amines, C12-14-tert-alkyl

NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight/day @28d
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Aspiration hazard : Not classified

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Viscosity, kinematic	460 mm ² /s @ 40°C
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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) : Not classified

Polysulphides, di-tert-Bu (68937-96-2)

EC50 Daphnia 1	63 mg/l @2d
EC50 72h - Algae [2]	> 100 mg/l
EC50 96h - Algae [1]	> 10000 mg/l Slib @0.1DY

Amines, C12-14-tert-alkyl

LC50 fish 1	24 mg/l @4d Oncorhynchus mykiss
LC50 fish 2	8,5 mg/l @4d Pimephales promelas
EC50 Daphnia 1	91,4 mg/l @2d
EC50 Daphnia 2	0,66 mg/l @21 d
EC50 other aquatic organisms 1	6,4 mg/l @4d selenastrum capricomutum
EC50 72h - Algae [1]	91,4 mg/l @2d waterflea
EC50 72h - Algae [2]	0,66 mg/l @21d waterflea
EC50 96h - Algae [1]	2433 mg/l @0.1d slib
NOEC chronic crustacea	0,12 mg/l @21 d waterflea
NOEC chronic algae	1,7 mg/l @4d selenastrum capricomutum

(Z)-N-9-octadecenyl-1,3-diaminopropane (7173-62-8)

LC50 fish 1	> 0,1 mg/l (Brachydanio rerio)
EC50 Daphnia 1	> 0,01 mg/l (Daphnia magna)
EC50 72h - Algae [1]	> 0,01 mg/l
NOEC chronic crustacea	> 0,001 @21DY (Daphnia maga)

12.2. Persistence and degradability

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Persistence and degradability : Not soluble in water, so only minimally biodegradable.

Polysulphides, di-tert-Bu (68937-96-2)

Biodegradation : 13 % @OECD TG @28d

Amines, C12-14-tert-alkyl

BOD (% of ThOD)	3,6 % ThOD @28d inherent sediment
Biodegradation	7,4 % Sturm (28d)

12.3. Bioaccumulative potential

Polysulphides, di-tert-Bu (68937-96-2)

Log Kow : 6

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. 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.

SECTION 14: Transport information

In accordance with ADR / IMDG

ADR	IMDG
14.1. UN number	
Not applicable	Not applicable
14.2. UN proper shipping name	
Not applicable	Not applicable
14.3. Transport hazard class(es)	
Not applicable	Not applicable
14.4. Packing group	
Not applicable	Not applicable
14.5. Environmental hazards	
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No
No supplementary information available	

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

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. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
	Supersedes	Added	
	Date of issue	Added	
	Revision date	Modified	
	Type of product	Added	

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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	
4.3	Treatment	Modified	
5.1	Suitable extinguishing media	Modified	
5.3	Protection during firefighting	Added	
5.3	Firefighting instructions	Added	
5.3	Precautionary measures fire	Modified	
6.1	Protective equipment	Modified	
6.1	Protective equipment	Modified	
6.2	Environmental precautions	Modified	
6.3	For containment	Modified	
6.3	Methods for cleaning up	Modified	
6.3	Other information	Modified	
7.1	Additional hazards when processed	Added	
7.1	Precautions for safe handling	Modified	
7.1	Hygiene measures	Modified	
7.2	Technical measures	Modified	
7.2	Storage temperature	Modified	
7.2	Storage area	Modified	
8.1	DNEL/DMEL (additional information)	Added	
8.2	Respiratory protection	Modified	
8.2	Personal protective equipment	Modified	
8.2	Hand protection	Modified	
8.2	Skin and body protection	Modified	
9.1	Solubility	Added	
9.1	Odour	Modified	
9.1	Colour	Modified	
9.1	Appearance	Modified	
9.1	Viscosity, kinematic	Modified	
9.1	Density	Modified	
9.1	Flash point	Modified	
10.1	Reactivity	Modified	
10.2	Chemical stability	Modified	
10.3	Possibility of hazardous reactions	Added	
10.4	Conditions to avoid	Modified	
10.5	Incompatible materials	Modified	

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10.6	Hazardous decomposition products	Modified	
11.1	Reason for no classification	Added	
11.1	Reason for no classification	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
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H372	Causes 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.
EUH208	Contains Amines, C12-14-tert-alkyl, Polysulphides, di-tert-Bu. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

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.