



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

1.1 Product identifier

Trade name/designation Mercedes-AMG High Performance Engine Oil SAE 0W-40 MB 229.5

MB-Freigabe-Nr 229.5 AMG

Product category PC-TEC-11 Lubricants, greases, release agents

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

Use of the substance/mixture

Lubricant

Uses advised against

This product should not be used for other purposes than those specified without the advice of an expert.

1.3 Details of the supplier of the safety data sheet

Supplier

Mercedes-Benz AG

70546 Stuttgart

Germany

+49 (0)711 17-0

Telefon + 49 (0)711 17-97390

Telefax + 49 (0)711 17-94831

E-Mail (fachkundige Person) mercedes-benz-sdb@mercedes-benz.com

Manufacturer

Mercedes-Benz AG

70546 Stuttgart

Germany

Telephone +49 711 17-0

E-mail (competent person):

mercedes-benz-sdb@mercedes-benz.com

1.4 Emergency telephone number

+49 711 17-0

gms.aftersales.mercedes-benz.com

Giftnotruf der Charité – Universitätsmedizin Berlin +49 (0)30 30686700

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Remark

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2 Label elements

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

P102 Keep out of reach of children.

Special rules for supplemental label elements for certain mixtures

EUH210 Safety data sheet available on request.

EUH208 Contains C14-16-18 alkyl phenol. May produce an allergic reaction.

2.3 Other hazards**Other adverse effects**

Special danger of slipping by leaking/spilling product.

Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients**3.1 Substances**

not applicable

3.2 Mixtures**Description**

Highly refined mineral oil with additives.

Hazardous ingredients

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
68037-01-4	500-183-1	1-decene, homopolymer, hydrogenated	20 < 50 weight-%	Asp. Tox. 1; H304	ATE(oral): > 5000 mg/kg ATE(dermal): 2001 mg/kg ATE(inhalation dust/mist): > 5 mg/L
72623-87-1	276-738-4	Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified	20 < 50 weight-%	Asp. Tox. 1; H304	ATE(oral): > 5000 mg/kg ATE(dermal): 2001 mg/kg ATE(inhalation dust/mist): > 5 mg/L
93819-94-4	298-577-9	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	1 < 2.5 weight-%	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 2; H411	ATE(oral): 2600 mg/kg ATE(dermal): 3160 mg/kg

REACH No.	Substance name
01-2119486452-34	1-decene, homopolymer, hydrogenated
01-2119474889-13	Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified
01-2119543726-33	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)



Remark

The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove victim out of the danger area.
Remove contaminated, saturated clothing immediately.

Following inhalation

Provide fresh air.
In the event of symptoms refer for medical treatment.

Following skin contact

After contact with skin, wash immediately with plenty of water and soap.
In case of skin irritation, consult a physician.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
Remove contact lens

Following ingestion

Do NOT induce vomiting.
Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam
Extinguishing powder
Carbon dioxide (CO₂)
Water spray jet

Unsuitable extinguishing media

Full water jet



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5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire formation of dangerous gases possible.

Nitrogen oxides (NOx)

Aldehydes

Carbon monoxide

Carbon dioxide (CO₂)

Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Cool endangered containers with water spray and possibly remove them from fire site.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid skin and eye contact.

Use personal protection equipment.

Special danger of slipping by leaking/spilling product.

For emergency responders

Personal protection equipment

Special danger of slipping by leaking/spilling product.

6.2 Environmental precautions

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter into surface water or drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

For containment

Collect with spongy material (all-purpose gelation agent) and dispose of in compliance with the regulations.

6.4 Reference to other sections

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8



SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Avoid:

generation/formation of aerosols

Provide for appropriate ventilation/aspiration at the work station

Do not heat up to temperatures close to the flash point.

All work processes must always be designed so that the following is as low as possible:

Skin contact

Avoid:

Eye contact

Do not put any product-impregnated cleaning rags into your trouser pockets.

Advices on general occupational hygiene

Thorough skin-cleansing after handling the product.

Apply skin care products after work.

When using do not eat, drink, smoke, sniff.

Keep away from food and drink.

Use protective skin cream before handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container.

Storage class

10 Combustible liquids that cannot be assigned to any of the above storage classes

Materials to avoid

Do not store together with:

Food and feedingstuffs

Further information on storage conditions

Keep container tightly closed and protected against effects of weather in a cool, appropriately aerated area.

Protect against:

Heat

UV-radiation/sunlight

7.3 Specific end use(s)

Recommendation

See section 1.2

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL worker

CAS No.	Substance name	DNEL value	DNEL type	Remark
938 19-94-4	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	8.31 mg/m ³	long-term inhalative (systemic)	
938 19-94-4	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	0.58 mg/kg	long-term dermal (systemic)	



DNEL Consumer

CAS No.	Substance name	DNEL value	DNEL type	Remark
938 19-94-4	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	0.29 mg/kg	long-term dermal (systemic)	
938 19-94-4	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	0.24 mg/kg	long-term oral (repeated)	

PNEC

CAS No.	Substance name	PNEC Value	PNEC type	Remark
938 19-94-4	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	0.004 mg/L	aquatic, freshwater	
938 19-94-4	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	0.005 mg/L	soil	

8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure

Sufficient ventilation and exhaustion.

Personal protection equipment

Eye/face protection

Safety glasses recommended during transfer

Hand protection

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Glove materials data [type, thickness, breakthrough time/duration of use, permeation rate]: Nitrile rubber (protection index 6, >480 min, 0.4 mm)

Body protection:

Protective clothing

Respiratory protection

Respiratory protection necessary at:

insufficient exhaust

prolonged exposure

Suitable respiratory protection apparatus:

Filtering device (full mask or mouthpiece) with filter:

AX

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

liquid

Colour

amber



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Odour

characteristic

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:	not determined		
Melting point/freezing point	not determined		
Boiling point or initial boiling point and boiling range	not determined		
flammability	not determined		
Lower and upper explosion limit	not determined		
Flash point	not determined		
Auto-ignition temperature	not determined		
Decomposition temperature	not determined		
pH	in delivery state		not applicable
Viscosity	kinematic 66.3 mm ² /s (40°C)		
Solubility(ies)	Water solubility		practically insoluble
Partition coefficient n-octanol/water (log value)	not determined		
Vapour pressure	not determined		
Density and/or relative density	0.84 g/cm ³ (15°C)		
Relative vapour density	not determined		
particle characteristics	not determined		

9.2 Other information

Other safety characteristics

	Value	Method	Source, Remark
Explosive properties:			The product is not explosive

Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazardous reactions known.

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

No hazardous reactions known.



10.4 Conditions to avoid

Heat
 High temperatures

10.5 Incompatible materials

Oxidising agent, strong
 Strong acids
 Strong bases

10.6 Hazardous decomposition products

No decomposition products will result from proper storage and handling.

SECTION 11: Toxicological information

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

Acute toxicity

Animal data

	Effective dose	Method,Evaluation	Source, Remark
Acute oral toxicity	CAS No.93819-94-4 Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) LD50: 2600 mg/kg Species Rat		
	CAS No.68037-01-4 1-decene, homopolymer, hydrogenated LD50: > 5000 mg/kg Species Rat		
	CAS No.72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified LD50: > 5000 mg/kg Species Rat	OECD 401	
	CAS No.72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified LD50: 2001 mg/kg Species Rabbit	OECD 402	
Acute dermal toxicity	CAS No.93819-94-4 Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) LD50: 3160 mg/kg Species Rabbit		
	CAS No.68037-01-4 1-decene, homopolymer, hydrogenated LD50: 2001 mg/kg Species Rat		



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	Effective dose	Method, Evaluation	Source, Remark
Acute inhalation toxicity	CAS No.68037-01-4 1-decene, homopolymer, hydrogenated Acute inhalation toxicity (dust/mist) LC50: > 5 mg/L Species Rat Exposure time 4 h		
	CAS No.72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified Acute inhalation toxicity (dust/mist) LC50: > 5 mg/L Species Rat Exposure time 4 h		

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
CAS No.93819-94-4 Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) Specific Concentration Limit (SCL) Skin Irrit. 2; H315: 6.25 % ≤ C ≤ 100 %Species Albino rabbit	OECD 404	CAS No.93819-94-4 Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) REACH Registration Dossier

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
CAS No.93819-94-4 Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) Specific Concentration Limit (SCL) Eye Dam. 1; H318: 12.5 % ≤ C ≤ 100%, Eye Irrit. 2; H319: 10 % ≤ C ≤ 12.5%Species Albino rabbit	16 CFR Section 1500.42 Federal Hazardous Substance Act Regulations	CAS No.93819-94-4 Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) REACH Registration Dossier

Skin sensitisation

Assessment/classification

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Value	Method	Result / Evaluation	Remark
In vitro mutagenicity/genotoxicity		not mutagenic	

Carcinogenicity

Animal data

Value	Method	Result / Evaluation	Remark
Carcinogenicity		not cancerogenic	



Reproductive toxicity

Assessment/classification

not toxic for reproduction

STOT-single exposure

STOT SE 1 and 2

Other information

The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

Other information

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Remark

No classification in relation to aspiration toxicity

11.2 Information on other hazards

Other information

More frequent and more prolonged skin contact can dry out the skin, which may lead to skin complaints and inflammations (dermatitis).

Risk of eye and respiratory tract irritation due to high temperatures of vapours and oil mist

In case of swallowing, irritations of the gastric mucous membrane, nausea, vomiting and diarrhoea may occur.

Toxicological data are not available.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	CAS No.93819-94-4 Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) LC50: 4.5 mg/L Test duration 96 h	OECD 203	
	CAS No.68037-01-4 1-decene, homopolymer, hydrogenated LC50: > 1000 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 96 h		
	CAS No.72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified LC50: > 100 mg/L Test duration 96 h		



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	Effective dose	Method,Evaluation	Source, Remark
Chronic (long-term) fish toxicity	CAS No.93819-94-4 Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) NOEC 4.5 mg/L Test duration 96 h		Data from REACH Registration Dossier
	CAS No.72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified NOEC > 1000 mg/L Test duration 14 d		
Acute (short-term) toxicity to crustacea	CAS No.93819-94-4 Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) EC50 5.4 mg/L Species Daphnia pulex (water flea) Test duration 48 h	OECD 202	
	CAS No.68037-01-4 1-decene, homopolymer, hydrogenated EC50 > 1000 mg/L Species Daphnia magna (Big water flea) Test duration 48 h	OECD 202	
Chronic (long-term) toxicity to aquatic invertebrate	CAS No.72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified NOEC 10 mg/L Species Daphnia pulex (water flea) Test duration 21 d	OECD 211	
	CAS No.68037-01-4 1-decene, homopolymer, hydrogenated EC50 125 mg/L Species Daphnia magna (Big water flea) Test duration 21 d		
	CAS No.68037-01-4 1-decene, homopolymer, hydrogenated NOEC 125 mg/L Species Daphnia magna (Big water flea) Test duration 21 d		
Acute (short-term) toxicity to algae and cyanobacteria	CAS No.72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified NOEC 100 mg/L Species Pseudokirchneriella subcapitata (green alga) Test duration 72 h	OECD 201	



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	Effective dose	Method,Evaluation	Source, Remark
	CAS No.68037-01-4 1-decene, homopolymer, hydrogenated EC50 1000 mg/L Species Pseudokirchneriella subcapitata (green alga) Test duration 72 h		
	CAS No.68037-01-4 1-decene, homopolymer, hydrogenated NOEC > 100 mg/L Species Pseudokirchneriella subcapitata (green alga) Test duration 72 h		
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	CAS No.68037-01-4 1-decene, homopolymer, hydrogenated NOEC > 1000 mg/L Species Scenedesmus quadricauda (green algae) Test duration 3 h		
Toxicity to microorganisms	not determined		

Assessment/classification

The substance/mixture does not fulfill the criteria of the acute aquatic toxicity according to Regulation (EC) No 1272/2008 [CLP], Annex I.

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation	Degradation rate 1.5	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No.93819-94-4 Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) 28 days Not easily biodegradable.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Additional ecotoxicological information

Additional information

Ecological dates are not available.

Product is not allowed to be discharged into the ground water or aquatic environment.

The product floats on top of the water/sewage.



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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
130205 *	mineral-based non-chlorinated engine, gear and lubricating oils

Appropriate disposal / Product

Dispose of waste according to applicable legislation.

Appropriate disposal / Package

Dispose of waste according to applicable legislation.

Remark

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	-	-	-
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No	No	No
14.6 Special precautions for user	No data available		
14.7 Maritime transport in bulk according to IMO instruments	not applicable		

All transport carriers

No dangerous goods as defined by the transport regulations - ADR/RID, IMDG, ICAO/IATA-DGR.

SECTION 15: Regulatory information

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

No data available

15.2 Chemical Safety Assessment

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

SECTION 16: Other information

Abbreviations and acronyms

See overview table at www.euphrac.eu



Key literature references and sources for data

Safety data sheets of suppliers

Additional information

Adhere to existing national and local rules referring to chemicals.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Relevant H- and EUH-phrases (Number and full text)

- | | |
|------|--|
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H411 | Toxic to aquatic life with long lasting effects. |