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@daimler.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

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
EUH208 Contains acomplex of molybdenum polysulphide long-chain alkyl dithiocarbamide, C14-16-18 alkyl phenol. Can cause allergic reactions.
EUH210 Safety data sheet available on request.

2.3 Other hazards

Adverse human health effects and symptoms
Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

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
Severely refined mineral and/or synthetic oils, additives.

Hazardous ingredients

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
64742-56-9	265-159-2	Distillates (petroleum), solvent-dewaxed, light paraffinic	1 < 1.5 %	Asp. Tox. 1; H304	ATE(oral): > 5000 mg/kg ATE(dermal): > 5000 mg/kg ATE(inhalation vapour): 5 mg/L
1190625-94-5	931-468-2	C14-16-18 alkyl phenol	1 < 1.5 %	Skin Sens. 1B ; H317 STOT RE 2 ; H373	
28629-66-5	249-109-7	zinc bis(O,O-diisooctyl) bis(dithiophosphate)	1 < 1.5 %	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 2; H411	Eye Dam. 1;H318: > 15 % Eye Irrit. 2;H319: >=10 -<=15 %
64742-70-7	265-174-4	Paraffin oils (petroleum), catalytic dewaxed heavy	1 < 1.5 %	Asp. Tox. 1; H304	
64742-65-0	265-169-7	Distillates (petroleum), solvent-dewaxed heavy paraffinic	1 < 1.5 %	Asp. Tox. 1; H304	

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
36878-20-3	253-249-4	bis(nonylphenyl)amine	1 < 1.5 %	Aquatic Chronic 4; H413	ATE(oral): 5001 mg/kg ATE(dermal): 2001 mg/kg
	457-320-2	molybdenum polysulphide long chain alkyl dithiocarbamate complex	0.1 < 0.25 %	Skin Irrit. 2; H315 Skin Sens. 1B; H317 Aquatic Chronic 3; H412	

REACH No.	Substance name
01-2119480132-48	Distillates (petroleum), solvent-dewaxed, light paraffinic
01-2119498288-19	C14-16-18 alkyl phenol
01-2119953278-28	zinc bis(O,O-diisooctyl) bis(dithiophosphate)
01-2119487080-42	Paraffin oils (petroleum), catalytic dewaxed heavy
01-2119471299-27	Distillates (petroleum), solvent-dewaxed heavy paraffinic
01-2119488911-28	bis(nonylphenyl)amine
01-0000019337-66	molybdenum polysulphide long chain alkyl dithiocarbamate complex

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 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
Remove contact lens
In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

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

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)
Phosphorus oxides
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
Personal protection equipment: see section 8
Disposal: see section 13

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
36878-20-3	bis(nonylphenyl)amine	0.62 mg/kg bw/day	long-term dermal (systemic)	
36878-20-3	bis(nonylphenyl)amine	4.37 mg/kg	long-term inhalative (systemic)	
64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	5.4 mg/m³	long-term inhalative (systemic)	

DNEL Consumer

CAS No.	Substance name	DNEL value	DNEL type	Remark
36878-20-3	bis(nonylphenyl)amine	0.31 mg/kg bw/day	long-term dermal (systemic)	
36878-20-3	bis(nonylphenyl)amine	1.09 mg/kg	long-term inhalative (systemic)	
36878-20-3	bis(nonylphenyl)amine	0.31 mg/kg	long-term oral (repeated)	
64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	1.2 mg/m³	long-term inhalative (systemic)	

PNEC

CAS No.	Substance name	PNEC Value	PNEC type	Remark
36878-20-3	bis(nonylphenyl)amine	0.1 mg/L	aquatic, freshwater	
36878-20-3	bis(nonylphenyl)amine	0.01 mg/L	aquatic, marine water	
36878-20-3	bis(nonylphenyl)amine	132000 mg/kg	sediment, freshwater	
36878-20-3	bis(nonylphenyl)amine	13200 mg/kg	sediment, marine water	
36878-20-3	bis(nonylphenyl)amine	263000 mg/kg	soil	
64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	9.33 mg/kg	Secondary Poisoning	, Nahrung

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
EN 166

Hand protection
Glove materials data [type, thickness, breakthrough time/duration of use, permeation rate]: Nitrile rubber (protection index 6, >480 min, 0.4 mm)
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.
The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and. the resultant standard EN374.

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
brown

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	> 300 °C		
flammability	not determined		
Lower and upper explosion limit	not determined		
Flash point	210 °C	ASTM D 93	
Auto-ignition temperature	not determined		
Decomposition temperature	not determined		
pH	in delivery state		not applicable nicht in Wasser löslich
Viscosity	kinematic 64.2 cSt (40°C)		
Solubility(ies)	Water solubility		practically insoluble
Partition coefficient n-octanol/water (log value)	not determined		

	Value	Method	Source, Remark
Vapour pressure	not determined		
Density and/or relative density	0.846 g/cm^3	ASTM D 4052	
Relative vapour density	not determined		
particle characteristics			not applicable

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
Avoid temperatures above flash point.

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.64742-56-9 Distillates (petroleum), solvent-dewaxed, light paraffinic LD50: > 5000 mg/kg Species Rat		

	Effective dose	Method,Evaluation	Source, Remark
	CAS No.36878-20-3 bis(nonylphenyl)amine LD50: 5001 mg/kg Species Rat	OECD 423	
Acute dermal toxicity	CAS No.64742-56-9 Distillates (petroleum), solvent-dewaxed, light paraffinic LD50: > 5000 mg/kg Species Rabbit		
	CAS No.36878-20-3 bis(nonylphenyl)amine LD50: 2001 mg/kg Species Rat	OECD 402	
Acute inhalation toxicity	CAS No.64742-56-9 Distillates (petroleum), solvent-dewaxed, light paraffinic Acute inhalation toxicity (vapour) LC50: 5 mg/L Species Rat Exposure time 4 h		

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

Skin corrosion/irritation

Practical experience/human evidence
Frequent and prolonged contact with the skin may cause skin irritation.

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

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
CAS No.28629-66-5 zinc bis(O,O-diisooctyl) bis(dithiophosphate) Specific Concentration Limit (SCL) Eye Dam. 1; H318: 15 ≤ C ≤ 100%, Eye Irrit. 2; H319: 10 ≤ C ≤ 15%	OECD 405	CAS No.28629-66-5 zinc bis(O,O-diisooctyl) bis(dithiophosphate)

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

Sensitisation to the respiratory tract

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

Skin sensitisation

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
not sensitising.		OECD 406	

Assessment/classification
Based on available data, the classification criteria are not met.
Available trial data have shown that the concentration of potentially sensitizing constituents in this product does not cause skin sensitization.

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT-single exposure

STOT SE 1 and 2

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

STOT SE 3

Irritation to respiratory tract

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

Narcotic effects

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

STOT-repeated exposure

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

Aspiration hazard

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

11.2 Information on other hazards

Other information

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.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	CAS No.36878-20-3 bis(nonylphenyl)amine LC50: 101 mg/L Test duration 96 h	OECD 203	
	CAS No.64742-56-9 Distillates (petroleum), solvent-dewaxed, light paraffinic LC50: > 101 mg/L Test duration 96 h		
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	CAS No.36878-20-3 bis(nonylphenyl)amine EC50 101 mg/L Species Daphnia pulex (water flea) Test duration 48 h	OECD 202	
	molybdenum polysulphide long chain alkyl dithiocarbamate complex EL50 50 mg/L Species Daphnia magna (Big water flea) Test duration 48 h	OECD 202	
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	CAS No.36878-20-3 bis(nonylphenyl)amine EC50 101 mg/L Species Pseudokirchneriella subcapitata (green alga) Test duration 72 h	OECD 201	
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

Assessment/classification

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

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation	Degradation rate 22.75 % Test duration 29 d		molybdenum polysulphide long chain alkyl dithiocarbamate complex Not easily biodegradable.

12.3 Bioaccumulative potential

	Value	Method	Source, Remark
Bioconcentration factor (BCF)	fish Bioconcentration factor (BCF) 88		molybdenum polysulphide long chain alkyl dithiocarbamate complex

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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
Das Produkt ist nicht zur Beförderung als Massengut vorgesehen.

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

Other regulations (EU)

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive] VOC

not applicable

15.2 Chemical Safety Assessment

National regulations

Substance safety analysis was not performed for this mixture.

SECTION 16: Other information

Indication of changes

Current safety data sheets are available at:
https://gms.aftersales.mercedes-benz.com

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Key literature references and sources for data

Safety data sheets of suppliers

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The mixture is classified according to the available hazard data for the constituents as defined in the classification criteria for mixtures for each hazard class in Appendix I of Regulation (EC) No 1272/2008.
Einstufungsverfahren:
Berechnung
Prüfdaten

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.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
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.