



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

1.1 Product identifier

Trade name/designation	Mercedes-Benz Genuine Engine Oil SAE 0W-20 MB 229.71
MB-Freigabe-Nr	229.71
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

Motor oil

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

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.



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2.3 Other hazards**Adverse human health effects and symptoms**

Frequently or prolonged contact with skin may cause dermal irritation.

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
64742-54-7	265-157-1	Distillates (petroleum), hydrotreated heavy paraffinic	6.25 < 10 %	Asp. Tox. 1; H304	ATE(oral): ≥ 5001 mg/kg ATE(dermal): ≥ 3001 mg/kg ATE(inhalation vapour): 5.53 mg/L
verschieden*		Base oil - unspecified	6.25 - 10 %	Asp. Tox. 1; H304	ATE(oral): ≥ 5000 mg/kg ATE(dermal): ≥ 5000 mg/kg
125643-61-0	406-040-9	reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	4 < 5 %	Aquatic Chronic 4; H413	
Polymer		alkyl phenyl ether	4 < 5 %	Aquatic Chronic 3; H412	

REACH No.

01-2119484627-25

Substance name

Distillates (petroleum), hydrotreated heavy paraffinic

01-0000015551-76

reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate

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

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

Following ingestion

Do NOT induce vomiting.

Rinse mouth thoroughly with water.

Seek medical advice 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

Fire gas of organic material has to be classed invariably as respiratory poison.

In the event of fire the following can be released:

Nitrogen oxides (NO_x)

Carbon monoxide

Carbon dioxide (CO₂)

Sulphur dioxide (SO₂)



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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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid skin and eye contact.

Special danger of slipping by leaking/spilling product.

For emergency responders

Personal protection equipment

Keep away unprotected persons

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

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

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

Adhere to general precaution rules when handling chemicals

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



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Advices on general occupational hygiene

When using do not eat, drink, smoke, sniff.
Keep away from food and drink.
Wash hands before breaks and after work.
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

Further information on storage conditions

Keep away from foods and beverages
Keep container tightly closed in a cool, well-ventilated place.
Protect against:
Heat

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
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic	5.4 mg/m ³	long-term inhalative (local)	

DNEL Consumer

CAS No.	Substance name	DNEL value	DNEL type	Remark
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic	1.2 mg/m ³	long-term inhalative (local)	

PNEC

CAS No.	Substance name	PNEC Value	PNEC type	Remark
64742-54-7	Distillates (petroleum), hydrotreated 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

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and. the resultant standard EN374.

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.

Body protection:

Protective clothing
EN 14605

Respiratory protection

Respiratory protection necessary at:
aerosol or mist formation

Respiratory protection necessary at:
high concentrations

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

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	ASTM D1120	Tolerance: ± 10%
flammability	not determined		
Lower and upper explosion limit	not determined		
Flash point	236 °C	ASTM D92	
Auto-ignition temperature	not determined		
Decomposition temperature	not determined		
pH	in delivery state		not applicable
Viscosity	kinematic 43.2 cSt (40°C)	ASTM D445	Tolerance: ± 10%
Solubility(ies)	Water solubility		practically insoluble
Partition coefficient n-octanol/water (log value)	not determined		
Vapour pressure	not determined		



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	Value	Method	Source, Remark
Density and/or relative density	Density and/or relative density 0.8459 g/m ³	ASTM D 4052	
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

Avoid temperatures above flash point.
High temperatures

10.5 Incompatible materials

Oxidising agent, strong
Strong acids
Strong bases

10.6 Hazardous decomposition products

Sulphur dioxide (SO₂)
Phosphorus compounds
Nitrogen oxides (NO_x)
Hydrogen sulfide (H₂S)
Carbon monoxide
Carbon dioxide

Additional information

No risk of production of decomposition products when appropriately handled and stored



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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. 64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic LD50: ≥ 5001 mg/kg Species Rat	OECD 423	
	CAS No. verschieden* Base oil - unspecified LD50: ≥ 5000 mg/kg Species Rat		
Acute dermal toxicity	CAS No. 64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic LD50: ≥ 3001 mg/kg Species Rabbit	OECD 402	
	CAS No. verschieden* Base oil - unspecified LD50: ≥ 5000 mg/kg Species Rat		
Acute inhalation toxicity	CAS No. 64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic Acute inhalation toxicity (vapour) LC50: 5.53 mg/L Species Rat		

Skin corrosion/irritation**Animal data**

Result / Evaluation	Method	Source, Remark
non-irritant.		Repeated or sustained contact with the skin can lead to inflammation.
CAS No. 125643-61-0 reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate non-irritant Species Rabbit	OECD 404	CAS No. 125643-61-0 reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate

Serious eye damage/irritation**Animal data**

Result / Evaluation	Method	Source, Remark
CAS No. 125643-61-0 reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate non-irritant Species Rabbit	OECD 405	CAS No. 125643-61-0 reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate

Assessment/classification

slightly irritant but not relevant for classification.



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Skin sensitisation

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
not sensitising.			
not sensitising.	CAS No. 125643-61-0 reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert- butyl-4- hydroxyphenyl)propionate Species Guinea pig	OECD 406	

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

Practical experience/human evidence

Harmless if swallowed in low doses; swallowing large amounts may affect the digestive tract.

Other information

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

STOT SE 3

Irritation to respiratory tract

Practical experience/human evidence

Inhaling mists and vapours at high-temperatures may cause respiratory irritation.

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

Repeated and/or long exposition may cause skin, eye or respiratory tract irritation.
More frequent and more prolonged skin contact can dry out the skin, which may lead to skin complaints and inflammations (dermatitis).
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. 64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic LL50 > 100 mg/L Species Pimephales promelas (fathead minnow) Test duration 96 h	OECD 203	
	CAS No. verschieden* Base oil - unspecified LC50: > 100 mg/L Species Pimephales promelas (fathead minnow) Test duration 96 h		
	CAS No. verschieden* Base oil - unspecified LC50: 5000 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 96 h		
Chronic (long-term) fish toxicity	CAS No. 125643-61-0 reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert- butyl-4- hydroxyphenyl)propionate LC50: > 74 mg/L Test duration 96 h	OECD 203	
	CAS No. 64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic NOEC 1000 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 14 d		
Acute (short-term) toxicity to crustacea	CAS No. verschieden* Base oil - unspecified EC50 10000 mg/L Species Daphnia magna (Big water flea) Test duration 48 h		



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	Effective dose	Method,Evaluation	Source, Remark
	CAS No.64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic EC50 > 10000 mg/L Species Daphnia pulex (water flea) Test duration 48 h	OECD 202	
	CAS No.125643-61-0 reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert- butyl-4- hydroxyphenyl)propionate EC50 > 101 mg/L Species Daphnia pulex (water flea) Test duration 24 h	OECD 202	
Chronic (long-term) toxicity to aquatic invertebrate	CAS No.verschieden* Base oil - unspecified NOEC > 10 mg/L Species Daphnia magna (Big water flea) Test duration 21 d		
	CAS No.64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic NOEC > 1 mg/L Species Daphnia pulex (water flea)		
Acute (short-term) toxicity to algae and cyanobacteria	CAS No.64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic EC50 > 100 mg/L Species Pseudokirchneriella subcapitata (green alga) Test duration 72 h		
	CAS No.verschieden* Base oil - unspecified EC50 > 100 mg/L Species Scenedesmus quadricauda Test duration 72 h		
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	CAS No.verschieden* Base oil - unspecified EC50 > 100 mg/L Species Scenedesmus quadricauda (green algae) Test duration 3 d		
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.



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12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation		OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No. 125643-61-0 reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate Not easily biodegradable.

12.3 Bioaccumulative potential

	Value	Method	Source, Remark
Bioconcentration factor (BCF)	Oncorhynchus mykiss (Rainbow trout) Bioconcentration factor (BCF) 260	OECD 305	CAS No. 125643-61-0 reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate May be concentrated in organisms.

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

Do not allow uncontrolled discharge of product into the 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)	-	-	-



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	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
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

Other regulations (EU)

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

VOC content, delivery state 0 %

15.2 Chemical Safety Assessment

National regulations

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.
- H412 Harmful to aquatic life with long lasting effects.
- H413 May cause long lasting harmful effects to aquatic life.