



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 5W-30 MB 229.51

MB-Freigabe-Nr 229.51

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

Use of the substance/mixture

Motor oil

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 product is not classified according to the CLP regulation.

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.

EUH208 Contains benzenesulfonic acid, methyl-, mono-C20-26-branched alkyl derivs., calcium salts; benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., calcium salts. 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
verschieden*		Base oil - unspecified	70 - 90 weight-%	Asp. Tox. 1; H304	ATE(oral): ≥ 5000 mg/kg ATE(dermal): ≥ 5000 mg/kg
147880-09-9	604-611-9	amines, polyethylenepoly-, reaction products with 1,3-dioxolan-2-one and succinic anhydride monopolyisobutenyl derivs.	5 - 6.25 weight-%	Aquatic Chronic 4; H413	
36878-20-3	253-249-4	bis(nonylphenyl)amine	2 - 3 weight-%	Aquatic Chronic 4; H413	ATE(oral): 5001 mg/kg ATE(dermal): 2001 mg/kg
72623-86-0	276-737-9	Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	1 - 2 weight-%	Asp. Tox. 1; H304	ATE(oral): > 5000 mg/kg ATE(dermal): > 2001 mg/kg ATE(inhalation dust/mist): > 5.53 mg/L ATE(inhalation vapour): > 5.53 mg/L
64742-54-7	265-157-1	Distillates (petroleum), hydrotreated heavy paraffinic	1 - 2 weight-%	Asp. Tox. 1; H304	ATE(oral): ≥ 5001 mg/kg ATE(dermal): ≥ 3001 mg/kg ATE(inhalation vapour): 5.53 mg/L

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CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
72623-87-1	276-738-4	Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified	1 - 2 weight-%	Asp. Tox. 1; H304	ATE(oral): > 5000 mg/kg ATE(dermal): 2001 mg/kg ATE(inhalation dust/mist): > 5 mg/L
722503-69-7	682-812-0	Benzenesulfonic acid, methyl-, mono-C20-26-branched alkyl derivs., calcium salts	0.5 - 0.95 weight-%	Skin Sens. 1B; H317 Aquatic Chronic 4; H413	
722503-68-6		benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., calcium salts	0.5 - 0.95 weight-%	Skin Sens. 1; H317 Aquatic Chronic 4; H413	
REACH No.	Substance name				
01-21194889-11-28	bis(nonylphenyl)amine				
01-2119474878-16	Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based				
01-2119484627-25	Distillates (petroleum), hydrotreated heavy paraffinic				
01-2119474889-13	Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified				

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

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

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire formation of dangerous gases possible.

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

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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)	

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)	
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)	

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
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	

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

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 D 1120	
flammability	not determined		
Lower and upper explosion limit	not determined		
Flash point	192 °C	ASTM D92	
Auto-ignition temperature	not determined		
Decomposition temperature	not determined		
pH	in delivery state		not applicable
Viscosity	kinematic 72.7 cSt (40°C)	ASTM D445	
Viscosity	kinematic 12.1 cSt (100°C)	ASTM D445	
Solubility(ies)	Water solubility		practically insoluble
Partition coefficient n-octanol/water (log value)	not determined		
Vapour pressure	not determined		
Density and/or relative density	0.853 g/cm ³ (15°C)	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

Heat
High temperatures

10.5 Incompatible materials

Oxidising agent, strong
Strong acids
Strong bases

10.6 Hazardous decomposition products

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

Additional information

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

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.72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based > 5000 mg/kg Species Rat	OECD 401	
	CAS No.36878-20-3 bis(nonylphenyl)amine LD50: 5001 mg/kg Species Rat	OECD 423	
	CAS No.64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic LD50: ≥ 5001 mg/kg Species Rat	OECD 423	



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	Effective dose	Method,Evaluation	Source, Remark
Acute dermal toxicity	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.verschieden* Base oil - unspecified LD50: ≥ 5000 mg/kg Species Rat		
	CAS No.36878-20-3 bis(nonylphenyl)amine LD50: 2001 mg/kg Species Rat	OECD 402	
	CAS No.72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified LD50: 2001 mg/kg Species Rabbit	OECD 402	
	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.72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based LD50: > 2001 mg/kg Species Rabbit		
	CAS No.72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based Acute inhalation toxicity (gas) > 5.53 mg/L Species Rat Exposure time 4 h	OECD 403	
	CAS No.64742-54-7 Distillates (petroleum), hydrotreated heavy paraffinic Acute inhalation toxicity (vapour) LC50: 5.53 mg/L Species Rat		



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	Effective dose	Method, Evaluation	Source, Remark
	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		
	CAS No. 72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based Acute inhalation toxicity (dust/mist) LC50: > 5.53 mg/L Species Rat Exposure time 4 h		

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
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Assessment/classification

In case of prolonged, frequent contact, irritation is possible.

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
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Skin sensitisation

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
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May cause an allergic skin reaction
in sensitive individuals.

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.72623-86-0 Lubricating oils (petroleum), C 15-30, hydrotreated neutral oil-based LL50 > 100 mg/L Test duration 96 h	OECD 203	
	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.36878-20-3 bis(nonylphenyl)amine LC50: 101 mg/L 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		

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	Effective dose	Method,Evaluation	Source, Remark
Chronic (long-term) fish toxicity	CAS No.72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified LC50: > 100 mg/L Test duration 96 h		
	CAS No.verschieden* Base oil - unspecified LC50: 5000 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 96 h		
	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.72623-87-1 Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based; Baseoil - unspecified NOEC > 1000 mg/L Test duration 14 d		
	CAS No.72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based EL50 > 10000 mg/L Test duration 48 h	OECD 202	
	CAS No.36878-20-3 bis(nonylphenyl)amine EC50 101 mg/L Species Daphnia pulex (water flea) Test duration 48 h	OECD 202	
	CAS No.verschieden* Base oil - unspecified EC50 10000 mg/L Species Daphnia magna (Big water flea) Test duration 48 h		
	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	



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	Effective dose	Method,Evaluation	Source, Remark
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.

12.2 Persistence and degradability

No data available

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.

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	-	-	-



	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
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.
H317	May cause an allergic skin reaction.
H413	May cause long lasting harmful effects to aquatic life.