

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

### 1.1 Product identifier

**Trade name/designation** Korrosions-/Frostschutzmittel MB 325.6

**MB-Freigabe-Nr** 325.6

**Product category** PC-TEC-7 Heat transfer fluids

**Hazard components for labelling**

ethanediol

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

**Use of the substance/mixture**

Corrosion prevention agent

Anti-freezing agent

### 1.3 Details of the supplier of the safety data sheet

**Supplier**

EvoBus GmbH

89231 Neu-Ulm  
Germany

Telephone +49 (0)731 181-8713 / +49 (0)160 8602346

Telefax: +49 (0)711 17-79033449

E-mail (competent person):

ronny.cortes@daimlertruck.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

+49 731 181-0

gms.aftersales.daimlertruck.com

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification procedure
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Acute Tox. 4, H302

STOT RE 2, H373

**hazard statements for health hazards**

H302 Harmful if swallowed.

H373 May cause damage to organs (kidneys) through prolonged or repeated exposure.

## 2.2 Label elements

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

**Hazard components for labelling**

ethanediol

**Hazard pictograms**



GHS07



GHS08

**Signal word**

Warning

**Hazard statements**

H302 Harmful if swallowed.

H373 May cause damage to organs (kidneys) through prolonged or repeated exposure.

**Precautionary statements**

P102 Keep out of reach of children.

P260 Do not breathe gas/mist/vapours.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P311 Call a POISON CENTER/doctor.

P501 Dispose of contents/container in accordance with regional regulations.

## 2.3 Other hazards

**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**

Ethylene glycol with inhibitors

**Hazardous ingredients**

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
107-21-1	203-473-3	ethanediol	> 90 %	Acute Tox. 4 ; H302 STOT RE 2; H373	ATE(dermal): 9530 mg/kg ATE(inhalation dust/mist): 10.9 mg/L

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
17265-14-4	241-300-3	disodium sebacate	≥ 1 < 5 %	Eye Irrit. 2; H319	ATE(oral): > 5000 mg/kg ATE(dermal): > 2000 mg/kg
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REACH No.	Substance name				
01-2119456816-28	ethanediol				
01-2120762063-61	disodium sebacate				

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

Remove contaminated, saturated clothing immediately.

#### Following inhalation

Remove casualty to fresh air and keep warm and at rest.

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.

Consult a doctor if the complaint persists.

#### After eye contact

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.

Medical treatment necessary.

Rinse mouth immediately and drink plenty of water.

### 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.

no specific antidote known.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Foam

Dry extinguishing powder

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**

Do not inhale explosion and combustion gases.

Use water spray jet to protect personnel and to cool endangered containers.

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

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

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**

Use personal protection equipment.

Respiratory protection required

**For emergency responders**

Personal protection equipment

Keep away unprotected persons

**6.2 Environmental precautions**

If stretches of water or sewerage systems become polluted, inform the relevant authorities.

Collect contaminated water / firefighting water separately.

Do not allow to enter into surface water or drains.

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**

No special measures are necessary.

Take precautionary measures against static discharges.

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Do not inhale gases/vapours/aerosols.

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.  
Remove contaminated, saturated clothing immediately.  
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 container tightly closed and store at cool and aired place.

#### Storage class

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

#### Further information on storage conditions

Storage: cool and dry

Protect against:

Humidity

### 7.3 Specific end use(s)

#### Recommendation

See section 1.2

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

CAS No.	EC No.	Substance name	occupational exposure limit value
107-21-1	203-473-3	Ethylene glycol	20 [ml/m3(ppm)] 52 [mg/m3] Short-term(ml/m3) 40 Short-term(mg/m3) 104 skin resorptive 2000/39/EC
107-21-1		Ethane-1,2-diol, particulate	10 [mg/m3] (IE)
107-21-1		Ethane-1,2-diol, vapour	20 [ml/m3(ppm)] 52 [mg/m3] Short-term(ml/m3) 40 (1) Short-term(mg/m3) 104 (1) (1) 15 minutes reference period (IE)
107-21-1		Ethane-1,2-diol, particulate	10 [mg/m3] (UK)
107-21-1		Ethane-1,2-diol, vapour	20 [ml/m3(ppm)] 52 [mg/m3] Short-term(ml/m3) 40 Short-term(mg/m3) 104 (UK)

#### **DNEL worker**

CAS No.	Substance name	DNEL value	DNEL type	Remark
17265-14-4	disodium sebacate	10 mg/kg	long-term dermal (systemic)	
17265-14-4	disodium sebacate	35.26 mg/m <sup>3</sup>	long-term inhalative (systemic)	
107-21-1	ethanediol	35 mg/m <sup>3</sup>	long-term inhalative (local)	
107-21-1	ethanediol	106 mg/kg	long-term dermal (systemic)	

#### **DNEL Consumer**

CAS No.	Substance name	DNEL value	DNEL type	Remark
107-21-1	ethanediol	7 mg/m <sup>3</sup>	long-term inhalative (local)	
107-21-1	ethanediol	53 mg/kg	long-term dermal (systemic)	

#### **PNEC**

CAS No.	Substance name	PNEC Value	PNEC type	Remark
17265-14-4	disodium sebacate	0.018 mg/L	aquatic, freshwater	
17265-14-4	disodium sebacate	0.002 mg/L	aquatic, marine water	
17265-14-4	disodium sebacate	10 mg/L	sewage treatment plant (STP)	
17265-14-4	disodium sebacate	0.548 mg/kg	sediment, freshwater	
17265-14-4	disodium sebacate	0.055 mg/kg	sediment, marine water	
17265-14-4	disodium sebacate	0.099 mg/kg	soil	
107-21-1	ethanediol	10 mg/L	aquatic, freshwater	
107-21-1	ethanediol	1 mg/L	aquatic, marine water	
107-21-1	ethanediol	10 mg/L	aquatic, intermittent release	
107-21-1	ethanediol	199.5 mg/L	sewage treatment plant (STP)	
107-21-1	ethanediol	1.53 mg/kg	soil	
107-21-1	ethanediol	3.7 mg/kg	sediment, marine water	

## **8.2 Exposure controls**

### **Appropriate engineering controls**

#### **Technical measures to prevent exposure**

Sufficient ventilation and exhaustion.

### **Personal protection equipment**

#### **Eye/face protection**

safety goggles  
EN 166

### Hand protection

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Nitrile rubber, 0.4 mm coating thickness, for short-term contact/splash

Glove materials data [type, thickness, breakthrough time/duration of use, permeation rate]: Butyl rubber,  $\geq 0,7$  mm thickness,  $>30$  minutes permeation rate, protection index 2

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:

aerosol or mist formation

Suitable respiratory protection apparatus:

Filtering device (full mask or mouthpiece) with filter:

A

P

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Physical state

liquid

#### Colour

pink

#### Odour

product-specific

#### Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:	not determined		
Melting point/freezing point	$< -18$ °C	DIN ISO 3016	
Boiling point or initial boiling point and boiling range	$> 160$ °C pressure 1013 hPa	ASTM D1120	
flammability	solid		not applicable
flammability	gaseous		not applicable
Lower and upper explosion limit	Upper explosion limit 15.1 Vol-%	DIN 51649-1 (01/2004: replaced by EN 1839)	
Lower and upper explosion limit	Lower explosion limit 3.4 Vol-%	DIN 51649-1 (01/2004: replaced by EN 1839)	
Flash point	$> 124$ °C	EN ISO 2719	
Auto-ignition temperature			The product is not self-igniting.
Decomposition temperature			not determined

	Value	Method	Source, Remark
pH	in delivery state 8	ASTM D1287	determined undiluted
Viscosity	kinematic 20- 30 mm <sup>2</sup> /s (20°C)	DIN 51562	
Viscosity	dynamic		not determined
Solubility(ies)	Water solubility		very soluble
Solubility(ies)	polar solvents		soluble
Partition coefficient n-octanol/water (log value)			not determined
Partition coefficient n-octanol/water (log value)	-1.36		CAS No.107-21-1 ethanediol
Vapour pressure	0.2 hPa (20°C)		
Density and/or relative density	1.122- 1.125 g/cm <sup>3</sup> (20°C)	DIN 51757	
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

Product effects hygroscopic.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No hazardous reactions with proper storage and handling.

### 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 reaction when handled and stored according to provisions.

### 10.4 Conditions to avoid

Flames, sparks, heat

### 10.5 Incompatible materials

Oxidising agent, strong



## 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## 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. 17265-14-4 disodium sebacate LD50: > 5000 mg/kg Species Rat	OECD 401	
Acute dermal toxicity	1600 mg/kg CAS No. 17265-14-4 disodium sebacate LD50: > 2000 mg/kg Species Rabbit	calculated OECD 402	
Acute inhalation toxicity	CAS No. 107-21-1 ethanediol LD50: 9530 mg/kg Species Rabbit		
	CAS No. 107-21-1 ethanediol Acute inhalation toxicity (dust/mist) LC50: 10.9 mg/L Species Rat Exposure time 1 h		

#### Assessment/classification

Harmful if swallowed.

#### Skin corrosion/irritation

##### Animal data

Result / Evaluation	Method	Source, Remark
non-irritant. Species Rabbit		

#### Assessment/classification

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

#### Serious eye damage/irritation

##### Animal data

Result / Evaluation	Method	Source, Remark
non-irritant. Species Rabbit		

#### 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

#### Assessment/classification

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

### Overall Assessment on CMR properties

The classification criteria have not been met according to the available data.

### 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

#### Animal data

	Effective dose	Method	Specific effects:	Organs affected:	Source, Remark
Oral specific target organ toxicity (repeated exposure)	CAS No.107-21-1 ethanediol NOEL(C): 150 mg/kg bw/day Species Rat Exposure time 52 Wochen Exposure frequency 7 d/w	OECD 452		kidney	
Dermal specific target organ toxicity (repeated exposure)	CAS No.107-21-1 ethanediol NOAEL(C): >2200< 4400 mg/kg bw/day Species Hund Exposure time 4 Wochen Exposure frequency 7 d/w	OECD 410			

#### Assessment/classification

Prolonged or repeated exposure can damage the kidneys.

## Aspiration hazard

### Assessment/classification

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

## 11.2 Information on other hazards

No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	CAS No.17265-14-4 disodium sebacate LC50: > 100 mg/L Species Danio rerio (zebrafish) Test duration 96 h LC50: > 100 mg/L Species Leuciscus idus (golden orfe) Test duration 96 h	OECD 203	
Chronic (long-term) fish toxicity	CAS No.107-21-1 ethanediol NOEC 32000 mg/L Species Pimephales promelas (fathead minnow) Test duration 7 d		
Acute (short-term) toxicity to crustacea	CAS No.17265-14-4 disodium sebacate EC50 > 100 mg/L Species Daphnia magna (Big water flea) Test duration 48 h EC50 > 100 mg/L Species Daphnia magna (Big water flea) Test duration 48 h	OECD 202	
Chronic (long-term) toxicity to aquatic invertebrate	CAS No.107-21-1 ethanediol NOEC 24000 mg/L Species Daphnia magna (Big water flea) Test duration 7 d		
Acute (short-term) toxicity to algae and cyanobacteria	CAS No.17265-14-4 disodium sebacate EL50 38.7 mg/L Species Skeletonema costatum Test duration 72 h EC50 > 100 mg/L Test duration 72 h	ISO 10253	
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

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 > 70	OECD 301A/ ISO 7827 / EEC 92/69/V, C.4-A	Biodegradable.
Biodegradation	Degradation rate 90- 100	OECD 301A/ ISO 7827 / EEC 92/69/V, C.4-A	CAS No.107-21-1 ethanediol Easily biodegradable

#### 12.3 Bioaccumulative potential

##### Assessment/classification

No indication of bioaccumulation potential.

#### 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.

Technically correct releases of minimal concentrations to adapted biological sewage plants, will not disturb the biodegradability of activated sludge.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
160114 *	antifreeze fluids containing hazardous substances

##### Appropriate disposal / Product

Dispose of waste according to applicable legislation.

##### Appropriate disposal / Package

Non-contaminated packages must be recycled or disposed of.

Handle contaminated packages in the same way as the substance itself.

##### 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)
<b>14.1 UN number or ID number</b>	-	-	-
<b>14.2 UN proper shipping name</b>	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-
<b>14.4 Packing group</b>	-	-	-
<b>14.5 Environmental hazards</b>	No	No	No
<b>14.6 Special precautions for user</b>	No data available		
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	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-value 0 %

### 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.daimlertruck.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.

#### **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)**

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.