



SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

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

1.1 Product identifier

Product name: Brake Fluid DOT 5.1

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

Identified uses: Brake fluid

Uses advised against: No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier Kora Handelsgesellschaft mbH
Olympiastraße 5
4432 Ernsthofen, Austria

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Contact Person: Kora Handelsgesellschaft mbH
Telephone: + 43 (0) 7435 810 10
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1.4 Emergency telephone number: + 43 (0) 7435 810 10 or + 43 (0) 676 3500 430

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has not been classified as hazardous, but needs to be labelled according to the legislation in force.

Hazard summary

Physical hazards: By handling of mineral oil products and chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8) are kept.

Environmental hazards: This product is water polluting.

2.2 Label elements

Safety data sheet available for professional user on request.

Product name: Brake Fluid DOT 5.1

2.3 Other hazards: No data available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: Mixture of glycole ethern, polyglycole and inhibitors.

Chemical name	Concentration *	Identifier	REACH Registration No.	Notes
Diglycol	>=2,40 - <=4,90%	203-872-2	01-2119457857-21	#
alkanolamine	>=2,40 - <=4,90%	Confidential	Confidential	

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Classification

Chemical name	Classification	
Diglycol	DSD:	Xn; R22
	CLP:	Acute Tox. 4;H302
alkanolamine	DSD:	Xn; R22 Xi; R38 R41
	CLP:	Eye Dam. 1;H318, Acute Tox. 4;H302, Skin Irrit. 2;H315

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

General: Change clothes and shoes contaminated or soaked by the product. Never put rags contaminated by the product into cloth-pockets.

4.1 Description of first aid measures

Inhalation: Supply fresh air; consult doctor in case of symptoms.

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids.

Skin contact: Wash with soap and water. The product is not skin irritating.

Ingestion: Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: May cause skin and eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: No data available.



Product name: Brake Fluid DOT 5.1

Treatment: Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: CO₂, fire extinguishing powder or fog like water spraying. Extinguish larger fires with alcohol resistant foam or spray water with suitable tensides added

Unsuitable extinguishing media: Water with a full water jet.

5.2 Special hazards arising from the substance or mixture: During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: In case of spills, beware of slippery floors and surfaces.

6.2 Environmental precautions: Prevent from spreading (e.g. by binding or oil barriers).

6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acidbinders, universal binders, sawdust).

6.4 Reference to other sections: See Section 8 of the MSDS for Personal Protective Equipment. See Section 7 for information on safe handling See Section 13 for information on disposal.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling: Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities: Local regulations concerning handling and storage of waterpolluting products have to be followed. Prevent formation of aerosols.

7.3 Specific end use(s): No data available.

Storage Class: 10, Combustible liquids



Product name: Brake Fluid DOT 5.1

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Chemical name	Type	Exposure Limit values	Source
Diglycol	TWA	23 ppm 101 mg/m ³	UK. EH40 Workplace Exposure Limits (WELs) (12 2011)

8.2 Exposure controls

Appropriate engineering controls: No data available.

Individual protection measures, such as personal protective equipment

General information: Wash hands before breaks and after work. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to in handling the chemicals or the mineral oil products.

Eye/face protection: Safety glasses (EN 166) recommended during refilling.

Skin protection

Hand protection: Nitrile butyl rubber (NBR). Avoid long-term and repeated skin contact. Suitable gloves can be recommended by the glove supplier. Use skin protection cream for preventive skin protection. Protective gloves, where permitted in acc. to safety directions. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Other: Do not carry cleaning cloths impregnated with the product in trouser pockets. Wear suitable protective clothing.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor. Avoid breathing vapour/ aerosol.

Thermal hazards: No data available.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Product name: Brake Fluid DOT 5.1

Physical State:	Liquid
Form:	Liquid
Color:	Yellow
Odor:	Characteristic
Odor Threshold:	No data available.
pH:	No data available.
Freezing point:	No data available.
Boiling Point:	260 °C
Flash Point:	138 °C
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Flammability Limit - Upper (%)-:	No data available.
Flammability Limit - Lower (%)-:	No data available.
Vapor pressure:	No data available.
Vapor density (air=1):	No data available.
Density:	1,0600 g/cm ³ (15 °C)
Solubility(ies)	
Solubility in Water:	Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Kinematic viscosity:	14 mm ² /s (40 °C)
Flow time:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.
9.2 Other information	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:	Stable under normal temperature conditions and recommended use.
10.2 Chemical stability:	No data available.
10.3 Possibility of hazardous reactions:	None under normal conditions.
10.4 Conditions to avoid:	Avoid heat or contamination.
10.5 Incompatible materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous decomposition products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Product name: Brake Fluid DOT 5.1

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute Toxicity

Oral

Product:	No data available.
Specified substance(s)	
Diglycol	LD 50 (Rat): 12.565 mg/kg LD 50 (Human): 1.120 mg/kg
alkanolamine	LD 50 (Rat): 200 - 2.000 mg/kg

Dermal

Product:	No data available.
Specified substance(s)	
Diglycol	LD 50 (Rabbit): 11.890 mg/kg
alkanolamine	No data available.

Inhalation

Product:	No data available.
Specified substance(s)	
Diglycol	No data available.
alkanolamine	No data available.

Repeated dose toxicity

Product:	No data available.
Specified substance(s)	
Diglycol	No data available.
alkanolamine	No data available.

Skin corrosion/irritation:

Product:	No data available.
Specified substance(s)	
Diglycol	No data available.
alkanolamine	No data available.

Serious eye damage/eye irritation:

Product:	No data available.
Specified substance(s)	
Diglycol	No data available.
alkanolamine	No data available.

Respiratory or skin sensitization:

Product:	No data available.
Specified substance(s)	

Product name: Brake Fluid DOT 5.1

Other adverse effects: No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

Fish

Product: LC 50 (Fish, 96 h): 250 mg/l

Aquatic invertebrates

Product: No data available.

Specified substance(s)

Diglycol EC 50 (Water Flea, 48 h): 84.000 mg/l
alkanolamine No data available.

Chronic Toxicity

Fish

Product: No data available.

Specified substance(s)

Diglycol No data available.
alkanolamine No data available.

Aquatic invertebrates

Product: No data available.

Specified substance(s)

Diglycol No data available.
alkanolamine No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s)

Diglycol No data available.
alkanolamine No data available.

12.2 Persistence and degradability

Biodegradation

Product: No data available.

Specified substance(s)

Diglycol No data available.
alkanolamine No data available.

BOD/COD ratio

Product: No data available.

Specified substance(s)

Product name: Brake Fluid DOT 5.1

Diglycol	No data available.
alkanolamine	No data available.

12.3 Bioaccumulative potential

Product: No data available.

Specified substance(s)

Diglycol	No data available.
alkanolamine	No data available.

12.4 Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Diglycol	No data available.
alkanolamine	No data available.

12.5 Results of PBT and vPvB assessment: No data available.

Diglycol	No data available.
alkanolamine	No data available.

12.6 Other adverse effects: No data available.

Water Hazard Class (WGK): WGK 1: slightly water-endangering.

SECTION 13: Disposal considerations
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13.1 Waste treatment methods

General information: Dispose in accordance with all applicable regulations.

Disposal methods: Do not empty into drains; dispose of this material and its container in a safe way. When storing used products, ensure that the waste categories and mixing instructions are observed.

European Waste Codes: 16 01 13*: brake fluids

SECTION 14: Transport information
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ADR/RID

Non-dangerous goods

ADN

Non-dangerous goods

IMDG

Non-dangerous goods

IATA

Non-dangerous goods



Product name: Brake Fluid DOT 5.1

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

SECTION 15: Regulatory information

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

National Regulations

Water Hazard Class (WGK): WGK 1: slightly water-endangering.

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Revision Information: Vertical lines in the margin indicate an amendment.

Wording of the R-phrases and H-statements in section 2 and 3

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
R22	Harmful if swallowed.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.

Training information: Follow training instructions when handling this material.

Revision date: 07.08.2014

Disclaimer: The data contained in this safety data sheet are based on our current knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not transferable to other products. In the case of mixing the product with other products or in the case of processing, the data in this safety data sheet are not necessarily valid for the new-made material. It is the responsibility of the recipient of the product to observe federal, state and local law. Please contact us to obtain up-to-date safety data sheets. This document was issued electronically and has no signature.