

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

Version 3.6 Revision Date: 20.03.2017 SDS Number: 330317-00008 Date of last issue: 01.02.2017
Date of first issue: 05.10.2012

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

1.1 Product identifier

Trade name : BRAKE FLUID DOT 4+ - 5 L
Product code : 08920098

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

Use of the Sub-stance/Mixture : Brake fluid

1.3 Details of the supplier of the safety data sheet

Company : Adolf Wuerth GmbH & Co. KG
Reinhold-Würth-Str. 12-17
74653 Künzelsau

Telephone : +49 794015 0

Telefax : +49 794015 10 00

E-mail address of person responsible for the SDS : prodsafe@wuerth.com

1.4 Emergency telephone number

Giftnotrufzentrale Berlin +49 30 30686 790. Gesellschaft (07:00 – 18:00 Uhr) +49 794015 2552

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2 H315: Causes skin irritation.
Serious eye damage, Category 1 H318: Causes serious eye damage.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H315 Causes skin irritation.
H318 Causes serious eye damage.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

Version 3.6 Revision Date: 20.03.2017 SDS Number: 330317-00008 Date of last issue: 01.02.2017
Date of first issue: 05.10.2012

Precautionary statements : **Prevention:**
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Hazardous components which must be listed on the label:

2,2'-butyliminodiethanol

Additional Labelling

EUH208 Contains Bisphenol A. May produce an allergic reaction.

2.3 Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

| Chemical name | CAS-No. EC-No. Index-No. Registration number | Classification | Concentration (% w/w) |
|--------------------------|---|---|--------------------------|
| 2,2'-butyliminodiethanol | 102-79-4 203-055-0 | Skin Corr. 1B; H314 Eye Dam. 1; H318 | $\geq 3 - < 5$ |
| Bisphenol A | 80-05-7 201-245-8 604-030-00-0 | Eye Dam. 1; H318 Skin Sens. 1; H317 Repr. 2; H361f STOT SE 3; H335 Aquatic Chronic 2; H411 | $\geq 0,25 - < 1$ |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

Protection of first-aiders : First Aid responders should pay attention to self-protection,

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

Version 3.6 Revision Date: 20.03.2017 SDS Number: 330317-00008 Date of last issue: 01.02.2017
Date of first issue: 05.10.2012

- and use the recommended personal protective equipment when the potential for exposure exists.
- If inhaled : If inhaled, remove to fresh air.
Get medical attention.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Get medical attention immediately.
- If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention.
Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : May produce an allergic reaction.

Causes skin irritation.
Causes serious eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically and supportively.
-

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides
Metal oxides
Nitrogen oxides (NO_x)

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 01.02.2017 |
| 3.6 | 20.03.2017 | 330317-00008 | Date of first issue: 05.10.2012 |

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
-

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

6.2 Environmental precautions

- Environmental precautions : Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up with inert absorbent material. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

Version 3.6 Revision Date: 20.03.2017 SDS Number: 330317-00008 Date of last issue: 01.02.2017
Date of first issue: 05.10.2012

- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Do not get on skin or clothing.
Avoid inhalation of vapour or mist.
Do not swallow.
Do not get in eyes.
Handle in accordance with good industrial hygiene and safety practice.
Keep container tightly closed.
Take care to prevent spills, waste and minimize release to the environment.
- Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep in properly labelled containers. Keep tightly closed.
Store in accordance with the particular national regulations.
- Advice on common storage : Do not store with the following product types:
Strong oxidizing agents
- Storage class (TRGS 510) : 10, Combustible liquids

7.3 Specific end use(s)

- Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|----------------------|-------------|
| Triethylene glycol monomethyl ether | 112-35-6 | AGW (Vapour and aerosols, inhalable fraction) | 50 mg/m ³ | DE TRGS 900 |
| Peak-limit: excursion factor (category) | 2;(II) | | | |
| Further information | Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., Sum of vapor and aerosols., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child | | | |
| Bisphenol A | 80-05-7 | AGW (Inhalable fraction) | 5 mg/m ³ | DE TRGS 900 |
| Peak-limit: excursion factor (category) | 1;(I) | | | |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

Version
3.6

Revision Date:
20.03.2017

SDS Number:
330317-00008

Date of last issue: 01.02.2017
Date of first issue: 05.10.2012

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| ry) | | | | |
| Further information | Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission), European Union (The EU has established a limit value: deviations in value and peak limit are possible), When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child | | | |
| | | TWA (inhalable dust) | 10 mg/m ³ | 2009/161/EU |
| Further information | Indicative | | | |

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|--|-------------|-----------------|----------------------------|----------------------------|
| Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate | Workers | Skin contact | Long-term systemic effects | 16,7 mg/kg bw/day |
| | Consumers | Skin contact | Long-term systemic effects | 10 mg/kg bw/day |
| | Consumers | Ingestion | Long-term systemic effects | 10 mg/kg bw/day |
| Triethylene glycol monomethyl ether | Workers | Inhalation | Long-term systemic effects | 156 mg/m ³ |
| | Workers | Skin contact | Long-term systemic effects | 40 mg/kg bw/day |
| | Consumers | Inhalation | Long-term systemic effects | 93 mg/m ³ |
| | Consumers | Skin contact | Long-term systemic effects | 20 mg/kg bw/day |
| | Consumers | Skin contact | Long-term systemic effects | 2 mg/kg bw/day |
| | Bisphenol A | Workers | Inhalation | Long-term systemic effects |
| Workers | | Inhalation | Acute systemic effects | 2 mg/m ³ |
| Workers | | Inhalation | Long-term local effects | 2 mg/m ³ |
| Workers | | Inhalation | Acute local effects | 2 mg/m ³ |
| Workers | | Skin contact | Long-term systemic effects | 0,031 mg/kg bw/day |
| Workers | | Skin contact | Acute systemic effects | 0,031 mg/kg bw/day |
| Consumers | | Inhalation | Long-term systemic effects | 1 mg/m ³ |
| Consumers | | Inhalation | Acute systemic effects | 1 mg/m ³ |
| Consumers | | Inhalation | Long-term local effects | 1 mg/m ³ |
| | Consumers | Inhalation | Acute local effects | 1 mg/m ³ |
| | Consumers | Skin contact | Long-term systemic effects | 0,002 mg/kg bw/day |
| | Consumers | Skin contact | Acute systemic ef- | 0,002 mg/kg |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

Version 3.6 Revision Date: 20.03.2017 SDS Number: 330317-00008 Date of last issue: 01.02.2017
Date of first issue: 05.10.2012

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|--|-----------|-----------|----------------------------|--------------------|
| | | | fects | bw/day |
| | Consumers | Ingestion | Long-term systemic effects | 0,004 mg/kg bw/day |
| | Consumers | Ingestion | Acute systemic effects | 0,004 mg/kg bw/day |

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name | Environmental Compartment | Value |
|--|---------------------------|--------------|
| Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate | Fresh water | 0,2112 mg/l |
| | Marine water | 0,02112 mg/l |
| | Intermittent use/release | 2,112 mg/l |
| | Sewage treatment plant | 100 mg/l |
| | Fresh water sediment | 0,76 mg/kg |
| | Marine sediment | 0,076 mg/kg |
| Triethylene glycol monomethyl ether | Fresh water | 10 mg/l |
| | Marine water | 1 mg/l |
| | Intermittent use/release | 50 mg/l |
| | Sewage treatment plant | 200 mg/l |
| | Fresh water sediment | 36,6 mg/kg |
| | Marine sediment | 0,8 mg/kg |
| Bisphenol A | Fresh water | 0,018 mg/l |
| | Marine water | 0,018 mg/l |
| | Intermittent use/release | 0,011 mg/l |
| | Sewage treatment plant | 320 mg/l |
| | Fresh water sediment | 1,2 mg/kg |
| | Marine sediment | 0,24 mg/kg |
| | Soil | 3,7 mg/kg |

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.
Minimize workplace exposure concentrations.

Personal protective equipment

Eye protection : Wear the following personal protective equipment:
Chemical resistant goggles must be worn.
If splashes are likely to occur, wear:
Face-shield

Hand protection

Material : butyl-rubber
Break through time : > 30 min
Glove thickness : 0,7 mm
Directive : DIN EN 374

Material : Nitrile rubber
Break through time : > 30 min

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 01.02.2017 |
| 3.6 | 20.03.2017 | 330317-00008 | Date of first issue: 05.10.2012 |

| | | |
|---------------------------|---|---|
| Glove thickness Directive | : | 0,4 mm DIN EN 374 |
| Remarks | : | Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday. |
| Skin and body protection | : | Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc). |
| Respiratory protection | : | Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. |
| Filter type | : | Combined particulates and organic vapour type (A-P) |

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Appearance | : | liquid |
| Colour | : | yellow |
| Odour | : | characteristic |
| Odour Threshold | : | No data available |
| pH | : | 7 - 8,5 |
| Melting point/freezing point | : | No data available |
| Solidification / Setting point | : | < -50 °C |
| Initial boiling point and boiling range | : | 265 °C |
| Flash point | : | 130 °C Method: DIN 51758 Other information: No data available |
| Evaporation rate | : | No data available |
| Flammability (solid, gas) | : | Not applicable |
| Upper explosion limit / Upper | : | No data available |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

Version 3.6 Revision Date: 20.03.2017 SDS Number: 330317-00008 Date of last issue: 01.02.2017
Date of first issue: 05.10.2012

flammability limit

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : 0,1 mbar (50 °C)

Relative vapour density : No data available

Density : ca. 1,07 g/cm³ (20 °C)

Solubility(ies)

Water solubility : soluble

Solubility in other solvents : soluble
Solvent: polar solvents

Partition coefficient: n-octanol/water : Not applicable

Auto-ignition temperature : > 200 °C
Method: DIN 51794

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : ca. 15 mm²/s (20 °C)
Method: DIN 51562

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2 Other information

Particle size : Not applicable

Self-ignition : The substance or mixture is not classified as self heating.

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Can react with strong oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid : None known.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

Version 3.6 Revision Date: 20.03.2017 SDS Number: 330317-00008 Date of last issue: 01.02.2017
Date of first issue: 05.10.2012

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Components:

2,2'-butyliminodiethanol:

Acute oral toxicity : LD50 (Rat): 4.800 mg/kg

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Bisphenol A:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 0,17 mg/l
Exposure time: 6 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): 2.230 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Components:

2,2'-butyliminodiethanol:

Species: Rabbit
Result: Corrosive after 3 minutes to 1 hour of exposure

Bisphenol A:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

Version 3.6 Revision Date: 20.03.2017 SDS Number: 330317-00008 Date of last issue: 01.02.2017
Date of first issue: 05.10.2012

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

2,2'-butyliminodiethanol:

Species: Rabbit

Result: Irreversible effects on the eye

Bisphenol A:

Species: Rabbit

Method: OECD Test Guideline 405

Result: Irreversible effects on the eye

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Bisphenol A:

Assessment: Probability or evidence of skin sensitisation in humans

Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Germ cell mutagenicity

Not classified based on available information.

Components:

2,2'-butyliminodiethanol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Bisphenol A:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Chromosome aberration test in vitro
Species: Mouse
Application Route: Ingestion
Result: negative

Carcinogenicity

Not classified based on available information.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

Version
3.6

Revision Date:
20.03.2017

SDS Number:
330317-00008

Date of last issue: 01.02.2017
Date of first issue: 05.10.2012

Components:

Bisphenol A:

Species: Rat
Application Route: Ingestion
Exposure time: 103 weeks
Result: negative

Reproductive toxicity

Not classified based on available information.

Components:

Bisphenol A:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: positive

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

STOT - single exposure

Not classified based on available information.

Components:

Bisphenol A:

Assessment: May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Bisphenol A:

Species: Rat
LOAEL: 120 mg/kg
Application Route: Ingestion
Exposure time: 2 yr

Aspiration toxicity

Not classified based on available information.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

Version 3.6 Revision Date: 20.03.2017 SDS Number: 330317-00008 Date of last issue: 01.02.2017
Date of first issue: 05.10.2012

SECTION 12: Ecological information

12.1 Toxicity

Components:

2,2'-butyliminodiethanol:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 320 - < 460 mg/l
Exposure time: 96 h
Method: DIN 38412

Toxicity to microorganisms : EC50 : > 727 mg/l
Exposure time: 30 min
Method: OECD Test Guideline 209

Bisphenol A:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 4,6 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 10,2 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 2,73 mg/l
Exposure time: 96 h

EC10 (Pseudokirchneriella subcapitata (green algae)): 1,36 mg/l
Exposure time: 96 h

Toxicity to microorganisms : EC10 (Pseudomonas putida): > 320 mg/l
Exposure time: 18 h

Toxicity to fish (Chronic toxicity) : NOEC: 100 µg/l
Exposure time: 49 d
Species: Cyprinus carpio (Carp)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,37 mg/l
Exposure time: 28 d
Species: Mysidopsis bahia (opossum shrimp)
Method: OPPTS 850.1350

12.2 Persistence and degradability

Components:

2,2'-butyliminodiethanol:

Biodegradability : Result: Not readily biodegradable.

Bisphenol A:

Biodegradability : Result: Readily biodegradable.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 01.02.2017 |
| 3.6 | 20.03.2017 | 330317-00008 | Date of first issue: 05.10.2012 |

Biodegradation: 89 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

12.3 Bioaccumulative potential

Components:

2,2'-butyliminodiethanol:

Partition coefficient: n-octanol/water : log Pow: -0,03

Bisphenol A:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 5,1 - 67

Partition coefficient: n-octanol/water : log Pow: 3,4

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not relevant

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

Waste Code : The following Waste Codes are only suggestions:

used product
160113, brake fluids

unused product
160113, brake fluids

uncleaned packagings
150110, packaging containing residues of or contaminated by dangerous substances

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 01.02.2017 |
| 3.6 | 20.03.2017 | 330317-00008 | Date of first issue: 05.10.2012 |

Acc. Packaging Ordinance properly emptied packaging:
Properly emptied, non-contaminated packaging of non-hazardous products can be supplied to a system for the collection of sales packaging.

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Bisphenol A

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 01.02.2017 |
| 3.6 | 20.03.2017 | 330317-00008 | Date of first issue: 05.10.2012 |

Water contaminating class (Germany) : WGK 1 slightly water endangering
Classification according VwVwS, Annex 4.

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 0 %

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Full text of H-Statements

H314 : Causes severe skin burns and eye damage.
H317 : May cause an allergic skin reaction.
H318 : Causes serious eye damage.
H335 : May cause respiratory irritation.
H361f : Suspected of damaging fertility.
H411 : Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Aquatic Chronic : Chronic aquatic toxicity
Eye Dam. : Serious eye damage
Repr. : Reproductive toxicity
Skin Corr. : Skin corrosion
Skin Sens. : Skin sensitisation
STOT SE : Specific target organ toxicity - single exposure
2009/161/EU : Europe. COMMISSION DIRECTIVE 2009/161/EU establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC

DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.
2009/161/EU / TWA : Limit Value - eight hours
DE TRGS 900 / AGW : Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisa-

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BRAKE FLUID DOT 4+ - 5 L

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|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: 01.02.2017 |
| 3.6 | 20.03.2017 | 330317-00008 | Date of first issue: 05.10.2012 |

tion for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Classification of the mixture:

| | |
|---------------|------|
| Skin Irrit. 2 | H315 |
| Eye Dam. 1 | H318 |

Classification procedure:

| |
|--------------------|
| Calculation method |
| Calculation method |

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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