

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 1/(13)

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

1.1 Product identifier:

A.Z. Meisterteile Bremsflüssigkeit DOT 4

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

Relevant identified uses: brake fluid

Uses advised against: application other than the above.

1.3 Details of the supplier of the safety data sheet:

Trader identification:

UNIX Autó és Alkatrészkereskedelmi Kft.

H-1139 Budapest, Frangepán u. 55-57.

Tel.: 06 1 270 8700

Fax: 06 1 270 8799

E-mail: info@unixauto.hu

Technical information:

UNIX Autó és Alkatrészkereskedelmi Kft.

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Tel.: 06 1 270 8700

Fax: 06 1 270 8799

E-mail: info@unixauto.hu

1.4 Emergency telephone number

Emergency telephone (07-15²⁰ h): 06 1 270 8700 (CET) on workdays

Health Toxicological Information Service (ETTSZ 1097 Budapest, Albert Flórián st. 2-6.)

Tel.: +36 80 201 199 (0-24 h, free number, can only be called from Hungary).

+36 1 476 6464 (0-24 h, can be called for a normal fee - also from abroad)

National Health Toxicological Information Service:

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Hazard Class and Category:

Acute Tox. 4

Eye Irrit. 2

STOT RE 2

Hazard statement:

H302

H319

H373

Harmful if swallowed.

Causes serious eye irritation.

May cause damage to kidneys through prolonged or repeated exposure if swallowed.

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 2/(13)

2.2 Label elements

Product identification: Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Hazardous components: Diethylene glycol

GHS Pictogram:



Signal word:

Warning

Hazard statement:

H302

Harmful if swallowed.

H319

Causes serious eye irritation.

H373

May cause damage to kidneys through prolonged or repeated exposure if swallowed.

Supplemental hazard information: -

Precautionary statements – General:

P101

If medical advice is needed, have product container or label at hand.

P102

Keep out of reach of children.

Precautionary statements – Prevention:

P270

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

P280

Wear protective gloves, protective clothing, eye protection/face protection.

Precautionary statements - Response

P301 + P312

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 +

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P338

P337 + P313

If eye irritation persists: Get medical advice/attention.

P308 + P313

IF exposed or concerned: Get medical advice/attention.

Precautionary statements – Storage: -

Precautionary statements – Disposal:

P501

Dispose of contents/container in accordance with national regulation.

Other liabilities for labelling:

Tactile warning of danger: Distribution for population.

Transport classification: see section 14.

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 3/(13)

2.3 Other hazards

The product does not contain any PBT or vPvB substance according to annex XIII of regulation (EC) 1907/2006.

SECTION 3 Composition/information on ingredients

3.2 Mixtures

Chemical description: Mixture of glycols, glycol ethers, inhibitors.

Component(s) / Hazardous component(s):

Name	EC number	CAS number	Hazard classes and cat.	Hazard statements	Conc. % (m/m)
Triethylene glycol monobutyl ether* REACH Registr. Nr.: 01-2119531322-53	205-592-6	143-22-6	Eye Dam. 1	H318	max. 45
Diethylene glycol REACH Registr. Nr.: 01-2119457857-21	203-872-2	111-46-6	Acute Tox. 4 STOT RE 2	H302 H373	max. 25
2-(2-Methoxyethoxy) ethanol REACH Registr. Nr.: 01-2119475100-52	203-906-6	111-77-3	Repr. 2	H361d	0-<3
2-(2-butoxyethoxy) ethanol REACH Registr. Nr.: 01-2119475104-44	203-961-6	112-34-5	Eye Irrit. 2	H319	<5

* Specific concentration limit:

Eye Dam. 1; H318: $C \geq 30\%$; Eye Irrit. 2; H319: $20\% \leq C < 30\%$

The full text of each relevant H- phrase and Hazard classes and cat. see in Section 16.

SECTION 4 First aid measures

4.1 Description of first aid measures

General information: Never give anything by mouth to an unconscious person, or never induce vomiting.

Inhalation: Remove the affected person to fresh air. If rapid recovery does not occur, obtain medical attention.

Skin contact: Remove contaminated clothing and wash skin with plenty of water, use soap. If irritation persists, obtain medical attention.

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 4/(13)

Eye contact: Immediately rinse affected eyes for at least 15 minutes under running water with eyelids held open. Obtain medical (ophthalmologist) attention.

Ingestion: If swallowed rinse mouth, give to drink plenty of water. Get prompt medical attention. Do not induce vomiting, only under medical supervision

Protection of first-aid person: No individual specifications.

4.2 Most important symptoms and effects, both acute and delayed

Serious eye irritation.

Over-exposure include central nervous system effects, abdominal discomfort, metabolic acidosis, headache and nausea.

If product is inhaled at elevated temperatures or as an aerosol it may irritate the respiratory tract and may cause systemic effects similar to ingestion.

Skin: may be absorbed through the skin.

Repeated contact may de-fat the skin and cause dermatitis.

Repeated exposure may cause kidney damage.

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions).

SECTION 5 Fire-fighting measures

Fire hazards:

Combustible.

5.1 Extinguishing media

Suitable extinguishing media:

Water (water-fog or water spray), alcohol-resistant foam, carbon dioxide, dry chemical powder.

Unsuitable extinguishing media:

Water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products:

On burning, fume and other toxic fumes / gases can be formed.

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 5/(13)

5.3 Advice for fire-fighters

Special protective equipment:

According to the existing fire-fighting regulations. Self-contained breathing apparatus.

Further information:

Containers may rupture from gas generation if exposed to fire.

In case of fire, keep containers cool with water spray.

Collect contaminated fire fighting water separately. It must not enter drains.

Contaminated extinguishing water must be disposed of in accordance with official regulations.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: see Section 8.

Evacuate all non-essential personnel.

Danger of slipping on leaked out/spilled product.

Avoid contact with skin and eyes.

6.2 Environmental precautions:

Prevent spills from entering into natural water, soil and drains by containing the liquid. Notify relevant authority.

6.3 Methods and material for containment and cleaning up

On soil: Contain spilled liquid with sand, earth or other suitable absorbents. Recover free liquid by pumping. Dispose of according to local regulations.

On water: Confine the spillage. Notify local authorities according to regulations.

Flush contaminated area with plenty of water.

6.4 Reference to other sections

Personal precautions: see section 8.

Waste treatment methods: see section 13.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

Keep general measures applied for normal operations with chemicals and flammable.

Keep away from radiant heat and open flame.

Ensure thorough ventilation of stores and work areas.

Avoid building of mist and aerosol.

Take precautionary measures against static discharges.

Avoid contact with skin and eyes. Avoid prolonged breathing of oil vapours or mists.

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 6/(13)

Ensure washing facilities after working hours and before breaks. Take off contaminated or oil-soaked clothing, wash with warm water and soap.

When using do not eat, drink or smoke.

Females of childbearing age and pregnant women should not come into contact with the product.

Handling temperature: no data

7.2 Conditions for safe storage, including any incompatibilities

Storage facilities must comply with regulations for storing of flammable liquids.

Store in cool, dry, well-ventilated area, in original, tightly closed containers.

Strong oxidizing agents, strong acids and alkalis be stored separately.

Material of storage tank are recommended: mild/stainless tanks fitted with a dry air breathing system or tight head steel drums.

Do not store in lined tank sor drums.

Storage temperature: max. 45°C

7.3 Specific end use(s)

Brake fluid.

SECTION 8 Exposure controls / personal protection

8.1 Control parameters:

EU limits

<i>2-(2-butoxyethoxy) ethanol:</i>	TWA (Long-term exposure limit)	10 ppm	
	– 8 Hrs:		
CAS: 112-34-5	TWA (Long-term exposure limit)	67,5 mg/m ³	
	– 8 Hrs:		
	STEL (Short-term exposure limit)	15 ppm	
	– 15 Min:		
	STEL (Short-term exposure limit)	101,2 mg/m ³	
	– 15 Min:		
<i>2-(2-Methoxyethoxy) etanol:</i>	TWA (Time weighted average):	50,1 mg/m ³	EU2
CAS: 111-77-3			

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 7/(13)

8.2 Exposure controls

Engineering control measures:

Adequate ventilation.

Personal protection:

- | | |
|----------------------------|---|
| (a) Eye/face protection | Safety glasses with side-shields (frame goggles) (EN 166). |
| (b) Skin protection | |
| (i) Hand protection | Protective gloves (chemical resistant) (EN 374).
Suitable materials, with prolonged, direct contact (recommended: protective index 6, corresponding > 480 minutes of permeation time according to EN 374): fluoroelastomer (FKM) – 0.7 mm coating thickness
Neoprene, PVC.
Polyethylene-Laminate (PE laminate) – ca. 0.1. mm coating thickness.
Suitable materials, short-term contact and/or splashes (recommended: at least protective index 2, corresponding > 30 minutes of permeation time according to EN 374): nitrile rubber (NBR) – 0.4 mm coating thickness
Manufacturer's directions for use should be observed because of great diversity of types.
Note: Manufacturer's directions for use and the conditions of application should be observed. |
| (ii) Other | Protective clothing. |
| (c) Respiratory protection | Under normal conditions not required.
When concentrations in air may exceed the limits recommended to use a half face filter mask to protect from overexposure by inhalation. (organic vapor against filter: A-P2) |
| (d) Thermal hazards | No data. |

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|--|--------------------------|
| a) Physical state: | liquid |
| b) Colour (ASTM D 1500): | colorless-yellow (amber) |
| c) Odour: | typical |
| d) Melting point/freezing point (DIN 51583): | <-50°C |

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 8/(13)

- | | |
|---|---------------------------|
| e) Boiling point or initial boiling point and boiling range (ASTM D1120): | 270°C |
| f) Flammability: | combustible |
| g) Lower and upper explosion limit: | not available |
| h) Flash point (COC) (DIN 51758): | >93°C |
| i) Auto-ignition temperature (DIN 51794): | >300°C |
| j) Decomposition temperature: | >300°C |
| k) pH: | 7.0 – 11.5 |
| l) Kinematic viscosity (DIN 51562): | |
| at 20°C-on: | 5 – 10 mm ² /s |
| at -40°C-on: | 1050 mm ² /s |
| at 100°C-on: | 2.34 mm ² /s |
| m) Solubility | |
| Solubility in water: | soluble |
| Solubility in other solvents: | Soluble in polar solvents |
| n) Partition coefficient n-octanol/water (log value): | not available |
| o) Vapour pressure at 20°C: | <2 mbar |
| p) Density and/or relative density at 20°C: | 1.04 g/cm ³ |
| q) Relative vapour density: | not available |
| r) Particle characteristics: | not available |

9.2 Other information

Wet boiling point: 163°C

SECTION 10 Stability and reactivity

- | | |
|--|---|
| 10.1 Reactivity: | Dangerous reactivity not known. |
| 10.2 Chemical stability: | No decomposition if stored and handled properly. |
| 10.3 Possibility of hazardous reactions: | Glycol Ethers can form peroxides on storage.
Glycol Ethers can react with light metals with the evolution of hydrogen. |
| 10.4 Conditions to avoid: | Direct heat or ignition sources. Do not distil to dryness without testing for peroxide formation. |
| 10.5 Incompatible materials: | Mineral oils, strong oxidizing agents, strong acids. |
| 10.6 Hazardous decomposition products: | No dangerous decomposition products are formed under normal conditions. Hazardous combustion products: See Section 5. |

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 9/(13)

SECTION 11 Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity: Harmful if swallowed.

Oral: LD₅₀ (rat) > 5000 mg/kg

Dermal: > 3000 mg/kg

Inhalation: no data

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: irritant (OECD 405 based on test),

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

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

11.2 Information on other hazards

No data.

SECTION 12 Ecological information

12.1 Toxicity

Aquatic organisms: Fish test (Leuciscus idus): LC₅₀ > 100 mg/l/96 h

Soil organisms: no data

Effects on activated sludge: Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

Plants: no data

12.2 Persistence and degradability

Biodegradability: 100%, 21 days Easily degradable (OECD 302B).
I admitted into adapted biological water treatment plants, no adverse effects on the degrading action of the live sludge are expected.

12.3 Bioaccumulative potential

log Pow: <2

12.4 Mobility in soil:

Mobile.

Mobility in water:

Soluble in water.

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 10/(13)

12.5 Results of PBT and vPvB assessment	The product does not contain adequate PBT (persistent / bioaccumulative / toxic) and vPvB (very persistent / very bioaccumulative) substances.
12.6 Endocrine disrupting properties	No data.
12.7 Other adverse effects	
Biological oxygen demand:	No data.
Chemical oxygen demand:	No data.
Heavy metal content:	None.
Environmental effects:	Do not empty into waterways without disposal.
Water hazard class (German):	WGK 1 (by AwSV)

SECTION 13 Disposal considerations

13.1 Waste treatment methods

Product disposal:

Wastes of the product or used oil should be treated as hazardous waste.

Waste Identification Code: 16 01 13*

Brake fluids.

Recommended waste treatment method: Must be dumper or incinerated in accordance with local regulations.

Packaging disposal:

Containers with product residue should also be treated as hazardous waste according to national and local disposal regulations.

Waste Identification Code: 15 01 10*

Packaging containing residues of or contaminated by dangerous substances.

Uncontaminated pack can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

Disposal must be in compliance with national and local regulations.

Wastewater:

Quality of wastewater emitted to natural water must comply with national and local regulations.

Care should be taken in any case to ensure compliance with EC, national and local regulations. It is the responsibility of the user to know all relevant national and local regulations.

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 11/(13)

SECTION 14 Transport information

Land transport:

Road/ Railway ADR/RID: Not classified.

- | | | |
|-------|-------------------------------|-----------------|
| 14.1. | UN number or ID number: | Not classified. |
| 14.2. | UN proper shipping name: | Not classified. |
| 14.3. | Transport hazard class(es): | Not classified. |
| 14.4. | Packing group: | Not classified. |
| 14.5. | Environmental hazards: | Not classified. |
| 14.6. | Special precautions for user: | Not classified. |

Waterways:

Inland waterways/ Sea transport ADN/IMDG: Not apply to the product.

Air transport: ICAO / IATA: Not apply to the product.

SECTION 15 Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety data sheet has been prepared according to Regulation (EC) No 1907/2006 (mod.: 2020/878/EU) and to Regulation (EC) 1272/2008.
Seveso category: not classified.
- 15.2 Chemical safety assessment.
not available

SECTION 16 Other information

The information given in this data sheet is based on our best knowledge at the time of publication. The information is related only to this product and is intended to assist its safe transport, handling and use. The given physical and chemical parameters describe the product only for the purpose of safety requirements and therefore should not be construed as guaranteeing any specific property of the product or as being part of a product specification or any contract. The manufacturer or supplier shall not take responsibility for any damages from the use other than recommended or other misuse of the product. It is the responsibility of the user to keep regulatory precautions and observe recommendations for safe use of the product.

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 12/(13)

Classification for mixtures and used evaluation method according to regulation 1272/2008/EC (CLP)

Acute Tox. 4	H302	(manufacturer classification)
Eye Irrit. 2	H319	(based on test results)
STOT RE 2	H373	(calculated)

The full text of each relevant H- phrase and Hazard classes and cat. in Section 3.:

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to kidneys through prolonged or repeated exposure if swallowed.
Acute Tox. 4	Acute toxicity Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Repr. 2	Reproductive toxicity Category 2
STOT RE 2	Specific target organ toxicity – repeated exposure Category 2

Legend:

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
ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
BOD	Biological Oxygen Demand
Bw	Body Weight
C&L	Classification and Labelling
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging (1272/2008/EC)
CMR	Carcinogenic, Mutagenic or toxic to Reproduction
COD	Chemical Oxygen Demand
CSA	Chemical Safety Assessment
CSR	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
ECHA	European Chemicals Agency

SAFETY DATA SHEET

according to regulation 1907/2006/EC (REACH) and 1272/2008/EC



Trade name: **A.Z. Meisterteile Bremsflüssigkeit DOT 4**

Version: 2

Latest revision: 01. 07. 2021

Date of issue: 13. 11. 2017

Page: 13/(13)

Ecx	Effective Concentration x%
ErC50	EC50 in terms of reduction of growth rate
Edx	Effective Dose x%
EC	European Community
EC number	European Community number
ELINCS	European List of Notified Chemical Substances
ES	Exposure Scenario
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LCx	Lethal Concentration x%
LDx	Lethal Dose x%
LOAEC	Lowest Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest Observed Effect Level
NOEC	No observed effect concentration
NOEL	No observed effect level
NLP	No-Longer Polymer
NOAEL	No Observed Adverse Effect Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	parts/million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International carriage of Dangerous Goods by Rail
SVHC	Substance of Very High Concern
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bio-accumulative

Revision Indicators:

Section	Subject of change	Date	Version
1-16	Full revision due to composition change Revision modification according to 2020/878/EU	01. 07. 2021	2