Revision: 13.03.2023

Printing date 29.01.2024

Version number 5.1

1 Identification

- · Product identifier
- · Trade name: BRAKE FLUID DOT 5.1
- Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

· Application of the substance / the mixture

Only for proper handling.

Brake fluid

- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

MOTOREX AG

Bern-Zürich-Strasse 31, Postfach

CH-4901 Langenthal

Tel. +41 (0)62 919 75 75

www.motorex.com

A1 Accessory Imports

60-62 Burchill St.

Loganholme

4129 QLD

Australia

Phone: 07 3451 1300

- · Further information obtainable from: msds@motorex.com
- · Emergency telephone number:

In case of a medical emergency following exposure to a chemical, call Poisons Information Centre Australia 13 11 26

2 Hazard(s) Identification

· Classification of the substance or mixture

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

- · Label elements
- · GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms



GHS08

- · Signal word Warning
- · Hazard-determining components of labelling:

Tris[2-[2-(2-methoxyethoxy)ethoxy] ethyl] orthoborate

· Hazard statements

H361 Suspected of damaging fertility or the unborn child.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. P280

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

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

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB**: Not applicable.

3 Composition and Information on Ingredients

- · Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 30989-05-0 EINECS: 250-418-4	Tris[2-[2-(2-methoxyethoxy)ethoxy] ethyl] orthoborate Repr. 2, H361	≥50-≤70%
CAS: 110-97-4 EINECS: 203-820-9 Index number: 603-083-00-7	1,1'-iminodipropan-2-ol Eye Irrit. 2, H319	0.25-1%

[·] Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First Aid Measures

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Remove residues with soap and water.

Remove contaminated clothing immediately.

· After eye contact:

Rinse opened eye for several minutes under running water.

Consult a physician if irritation develops.

- · After swallowing: Rinse mouth and immediately consult a physician
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire Fighting Measures

- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Protective equipment: No special measures required.

6 Accidental Release Measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to section 13.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

7 Handling and Storage

- · Handling:
- Precautions for safe handling

Good general ventilation should be sufficient for most conditions.

Open and handle receptacle with care.

- Information about fire and explosion protection: Keep respiratory protective device available.
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Keep container tightly closed; product is hygroscopic.

Store in cool, dry well ventilated area away from sources of ignition and heat.

- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions:

The recommended storage temperature is (deg.C): ≤50°C

Keep container tightly sealed.

- · Storage class: 10
- · Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

- · Additional information about design of technical facilities: No further data; see section 7.
- · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs				
30989-05-0 Tris[2-[2-(2-methoxyethoxy)ethoxy] ethyl] orthoborate				
Oral	DNEL/general population/Systemic effects/Long-term	4.1 mg/kg/24h (consumer)		
Dermal	DNEL / Workers / Systemic effects / Long-term	8.3 mg/kg/24h (worker)		
	DNEL/general population/Systemic effects/Long-term	4.1 mg/kg/24h (consumer)		
Inhalative	DNEL / Workers / Systemic effects / Long-term	29.1 mg/m3 (worker)		
	DNEL/general population/Systemic effects/Long-term	7.2 mg/m3 (consumer)		

· PNECs

30989-05-0 Tris[2-[2-(2-methoxyethoxy)ethoxy] ethyl] orthoborate

	, ,
PNEC / Aquatic organisms / Freshwater	0.2112 mg/l (aquatic organisms)
PNEC / Aquatic organisms / Marine water	0.0211 mg/l (aquatic organisms)
PNEC/Aquatic org/intermittent releases(freshwater)	2.112 mg/l (aquatic organisms)
PNEC/Aquatic organisms/Sewage treatment plant/S7	P 100 mg/l (aquatic organisms)
PNEC / Aquatic organisms / Sediment (freshwater)	0.76 mg/kg (aquatic organisms)
PNEC / Aquatic organisms / Sediment (marine water)	0.076 mg/kg (aquatic organisms)

- · Additional information: The lists valid during the making were used as basis.
- Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Respiratory protection:

Not necessary if room is well-ventilated.

Respiratory protection if formation of aerosol or mist: use mask with filter type A2, A2/P2 or ABEK.

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Protection of hands:

Impervious gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- · Material of gloves Use CR or NBR rubber gloves. Material thickness: 0.5 mm
- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- · Eye protection: Goggles recommended during refilling
- · Body protection: Protective work clothing

9 Physical and Chemical Properties

· General Information

· Appearance:

Form:
Colour:
Odour:
Odour threshold:
pH-value at 20 °C:
Fluid
Yellow
Characteristic
Not determined.
7-8 (DIN 51369)

Change in condition

· Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: >260 °C (DIN EN ISO 3405)

Flash point: >126 °C
 Flammability (solid, gas): Not applicable.
 Decomposition temperature: Not determined.

• Explosive properties: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined.
Upper: Not determined.
Vapour pressure: Not determined.

• **Density at 20 °C:** 1.06 g/cm³ (ASTM D 4052)

Relative density
 Vapour density
 Evaporation rate
 Not determined.
 Not determined.

· Solubility in / Miscibility with

water: Fully miscible.
 Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic: Not determined.

• **Kinematic:** 7 mm²/s @ 40 °C (DIN 51562-1)

· Solvent separation test:

· **VOC (EC)** 0.00 %

· Other information No further relevant information available.

10 Stability and Reactivity

- · Reactivity No further relevant information available.
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.

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- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.
- Additional information: The product is stable but hygroscopic.

11 Toxicological Information

- · Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC5	· LD/LC50 values relevant for classification:		
30989-0	30989-05-0 Tris[2-[2-(2-methoxyethoxy)ethoxy] ethyl] orthoborate		
Oral	LD50	2,000 mg/kg (rat)	
	NOAEL	1,000 mg/kg/24h (rat)	
Dermal	LD50	2,000 mg/kg (rat)	

- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · 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 Suspected of damaging fertility or the unborn child.
- · 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.
- · Additional toxicological information:

The sweet taste can seduce children to drink large quantities; hence keep out of reach of children.

12 Ecological Information

Toxicity

· Aquati	· Aquatic toxicity:	
30989-	05-0 Tris[2-[2-(2-methoxyethoxy)ethoxy] ethyl] orthoborate	
LC50	222-1,010 mg/l/96h (fish)	
LC50	222-1,010 mg/l/48h (fish)	
LC50	222-1,010 mg/l/72h (aquatic organisms)	
LC50	222-1,010 ppm/96h (fish)	
EC10	224.4 mg/l (algae)	
EC10	500 mg/l/48h (aquatic invertebrates)	
EC50	211-960 mg/l/24h (aquatic invertebrates)	
EC50	224-1,020 mg/l/72h (algae / cyanobacteria)	
EC0	500 mg/l/48h (aquatic invertebrates)	
EC50	211-960 mg/l/48h (aquatic invertebrates)	
EC50	224.4 mg/l (algae)	
NOEC	224-1,020 mg/l/72h (algae / cyanobacteria)	

- · Persistence and degradability No further relevant information available.
- Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes:

Water hazard class 1 (according to Appendix 1 AwSV): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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- · Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Return product and/or partially emptied container in original packaging to the point of sale or hand it over to a collection point for special waste.

- Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

UN-Number	
ADG, ADN, IMDG, IATA	Not classified as hazardous for transport
UN proper shipping name	
ADG, ADN, IMDG, IATA	Not classified as hazardous for transport
Transport hazard class(es)	
ADG, ADN, IMDG, IATA	
Class	Not classified as hazardous for transport
Packing group	
ADG, IMDG, IATA	Not classified as hazardous for transport
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Ann	ex II of
Marpol and the IBC Code	Not applicable.
UN "Model Regulation":	Not classified as hazardous for transport

15 Regulatory information

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

· Australian Inventory of Industrial Chemicals	
30989-05-0	Tris[2-[2-(2-methoxyethoxy)ethoxy] ethyl] orthoborate
110-97-4	1,1'-iminodipropan-2-ol

· Standard for the Uniform Scheduling of Medicines and Poisons

None of the ingredients is listed.

· Australia: Priority Existing Chemicals

None of the ingredients is listed.

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- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Chemical safety assessment: A Chemical Safety Assessment has been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. The classification of the mixture was carried out by calculation in accordance with the rules laid down in Annex I of Regulation (EC) No 1272/2008.

No special training instructions to ensure protection of human health and environment are required.

- · purity requirement
- Relevant phrases

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

- · Department issuing SDS: Abteilung Produktsicherheit
- Contact:
- · Abbreviations and acronyms:

Eye Irrit. 2: Serious eye damage/eye irritation - Category 2

Repr. 2: Reproductive toxicity - Category 2

* Data compared to the previous version altered.