

BRAKE FLUID DOT 4 SUPER - 500ml

Version 6.1 Revision Date: 18.06.2024 SDS Number: 4601908-00012 Date of last issue: 11.05.2023
Date of first issue: 04.07.2019

SECTION 1: IDENTIFICATION

Product name : BRAKE FLUID DOT 4 SUPER - 500ml
Product code : 0892 098 500

Manufacturer or supplier's details

Company : Wurth Australia Pty. Ltd.
Address : Building 5, 43 - 63 Princes Highway
Dandenong South, VIC 3175
Telephone : +61 3 8788 1111
Emergency telephone number : 1300 657 765. Advisory office in case of poisoning - National
Poisons Centre: 131 126
E-mail address : product@wurth.com.au


Recommended use of the chemical and restrictions on use

Recommended use : Hydraulic fluid
Brake fluid
Restrictions on use : Not applicable

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Reproductive toxicity : Category 2

GHS label elements

Hazard pictograms : 

Signal word : Warning

Hazard statements : H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

and understood.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

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

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	30989-05-0	>= 60 -<= 100
2-(2-(2-butoxyethoxy)ethoxy)ethanol	143-22-6	>= 3 -< 10
Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-	9004-77-7	>= 3 -< 10
2-(2-Methoxyethoxy)ethanol	111-77-3	>= 0.3 -< 3
Methyl-1H-benzotriazole	29385-43-1	< 3

SECTION 4. 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.

If inhaled : If inhaled, remove to fresh air.
Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact : Flush eyes with water as a precaution.
Get medical attention if irritation develops and persists.

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

- If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention.
Rinse mouth thoroughly with water.
- Most important symptoms and effects, both acute and delayed : Suspected of damaging fertility. Suspected of damaging the unborn child.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
- Notes to physician : Treat symptomatically and supportively.
-

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : None known.
- Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides
Metal oxides
- 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.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
-

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).
- Environmental precautions : Avoid release to the environment.
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.
-

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and 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.

SECTION 7. HANDLING AND STORAGE

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

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : Avoid inhalation of vapour or mist.
Do not swallow.
Avoid contact with eyes.
Avoid prolonged or repeated contact with skin.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep away from water.
Protect from moisture.
Take care to prevent spills, waste and minimize release to the environment.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

Conditions for safe storage : Keep in properly labelled containers.
Store locked up.
Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:
Strong oxidizing agents

Recommended storage temperature : 15 - 30 °C

BRAKE FLUID DOT 4 SUPER - 500ml

Version 6.1 Revision Date: 18.06.2024 SDS Number: 4601908-00012 Date of last issue: 11.05.2023
 Date of first issue: 04.07.2019

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Boric acid	10043-35-3	TWA (Inhalable particulate matter)	2 mg/m ³ (Borate)	ACGIH
		STEL (Inhalable particulate matter)	6 mg/m ³ (Borate)	ACGIH

Engineering measures : Processing may form hazardous compounds (see section 10).
 Ensure adequate ventilation, especially in confined areas.
 Minimize workplace exposure concentrations.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Combined particulates and organic vapour type

Hand protection

Material : butyl-rubber
 Break through time : > 480 min
 Glove thickness : 0.3 mm
 Protective index : Class 6

Material : Nitrile rubber
 Break through time : > 480 min
 Glove thickness : 0.2 mm
 Protective index : Class 6

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.

Eye protection : Wear the following personal protective equipment:
 Safety glasses
 Always wear eye protection when the potential for inadvertent

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

eye contact with the product cannot be excluded.
Please follow all applicable local/national requirements when selecting protective measures for a specific workplace.

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).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	amber
Odour	:	mild
Odour Threshold	:	No data available
pH	:	7 - 10.5 Concentration: 100 %
Melting point/freezing point	:	< -50 °C
Initial boiling point and boiling range	:	> 260 °C
Flash point	:	> 120 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	1.00 mbar
Relative vapour density	:	No data available

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

Density	:	1.02 - 1.07 g/cm ³ (20 °C)
Solubility(ies)	:	
Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	log Pow: 1.50
Auto-ignition temperature	:	> 280 °C
Decomposition temperature	:	300 °C
Viscosity	:	
Viscosity, kinematic	:	ca. 5 - 10 cSt (20 °C) Method: ASTM D 445
	:	2.23 cSt (100 °C)
	:	1347 cSt (-40 °C) Method: ASTM D 445
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Particle characteristics	:	
Particle size	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Can react with strong oxidizing agents. Hazardous decomposition products will be formed upon contact with water or humid air.
Conditions to avoid	:	Exposure to moisture
Incompatible materials	:	Oxidizing agents Water

Hazardous decomposition products

Contact with water or humid air	:	Boric acid
---------------------------------	---	------------

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

SECTION 11. TOXICOLOGICAL INFORMATION

Exposure routes : Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Components:**Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

2-(2-(2-butoxyethoxy)ethoxy)ethanol:

Acute oral toxicity : LD50 (Rat): 5,170 mg/kg
Acute dermal toxicity : LD50 (Rabbit): 3,540 mg/kg

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401
Acute dermal toxicity : LD50 (Rabbit, male): 3,540 mg/kg
Remarks: Based on data from similar materials

2-(2-Methoxyethoxy)ethanol:

Acute oral toxicity : LD50 (Guinea pig): 4,160 mg/kg
Acute dermal toxicity : LD50 (Rabbit, male): 9,404 mg/kg

Methyl-1H-benzotriazole:

Acute oral toxicity : LD50 (Rat): 720 mg/kg
Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 402
Remarks: Based on data from similar materials

BRAKE FLUID DOT 4 SUPER - 500ml

Version 6.1 Revision Date: 18.06.2024 SDS Number: 4601908-00012 Date of last issue: 11.05.2023
Date of first issue: 04.07.2019

Skin corrosion/irritation

Not classified based on available information.

Components:**Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate:**

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

2-(2-(2-butoxyethoxy)ethoxy)ethanol:

Species : Rabbit
Result : No skin irritation

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

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

2-(2-Methoxyethoxy)ethanol:

Species : Rabbit
Result : No skin irritation

Methyl-1H-benzotriazole:

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

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Result : Mild eye irritation
Method : OECD Test Guideline 405

Components:**Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate:**

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405

2-(2-(2-butoxyethoxy)ethoxy)ethanol:

Species : Rabbit
Result : Irreversible effects on the eye
Method : OECD Test Guideline 405
Remarks : Based on data from similar materials

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Species	:	Rabbit
Result	:	Irreversible effects on the eye

2-(2-Methoxyethoxy)ethanol:

Species	:	Rabbit
Result	:	No eye irritation

Methyl-1H-benzotriazole:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405

Respiratory or skin sensitisation**Skin sensitisation**

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:**Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate:**

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative
Remarks	:	Based on data from similar materials

2-(2-(2-butoxyethoxy)ethoxy)ethanol:

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Result	:	negative
Remarks	:	Based on data from similar materials

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Result	:	negative
Remarks	:	Based on data from similar materials

2-(2-Methoxyethoxy)ethanol:

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact

BRAKE FLUID DOT 4 SUPER - 500ml

Version 6.1 Revision Date: 18.06.2024 SDS Number: 4601908-00012 Date of last issue: 11.05.2023
Date of first issue: 04.07.2019

Species : Guinea pig
Method : OECD Test Guideline 406
Result : negative

Methyl-1H-benzotriazole:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : negative

Chronic toxicity**Germ cell mutagenicity**

Not classified based on available information.

Components:**Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

2-(2-(2-butoxyethoxy)ethoxy)ethanol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

2-(2-Methoxyethoxy)ethanol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Result: negative

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Methyl-1H-benzotriazole:

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

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Suspected of damaging fertility. Suspected of damaging the unborn child.

Components:

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

Effects on fertility : Test Type: One-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 443
Result: positive

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rabbit
Method: OECD Test Guideline 414
Result: positive

Reproductive toxicity - Assessment : Some evidence of adverse effects on development, based on animal experiments., Some evidence of adverse effects on

BRAKE FLUID DOT 4 SUPER - 500ml

Version 6.1 Revision Date: 18.06.2024 SDS Number: 4601908-00012 Date of last issue: 11.05.2023
Date of first issue: 04.07.2019

sexual function and fertility, based on animal experiments.

2-(2-(2-butoxyethoxy)ethoxy)ethanol:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

2-(2-Methoxyethoxy)ethanol:

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

Reproductive toxicity - Assessment : Clear evidence of adverse effects on development, based on animal experiments.

Methyl-1H-benzotriazole:

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: positive

Reproductive toxicity - Assessment : Some evidence of adverse effects on development, based on animal experiments.

STOT - single exposure

Not classified based on available information.

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

STOT - repeated exposure

Not classified based on available information.

Components:**2-(2-Methoxyethoxy)ethanol:**

Assessment : No significant health effects observed in animals at concentrations of 200 mg/kg bw or less.

Repeated dose toxicity**Components:****Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate:**

Species : Rat
NOAEL : $\geq 1,000$ mg/kg
Application Route : Ingestion
Exposure time : 90 Days
Method : OECD Test Guideline 408

2-(2-(2-butoxyethoxy)ethoxy)ethanol:

Species : Rat
NOAEL : 250 mg/kg
Application Route : Ingestion
Exposure time : 90 Days
Method : OECD Test Guideline 408
Remarks : Based on data from similar materials

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Species : Rat
NOAEL : > 100 mg/kg
Application Route : Ingestion
Exposure time : 90 Days
Method : OECD Test Guideline 408
Remarks : Based on data from similar materials

2-(2-Methoxyethoxy)ethanol:

Species : Rat, male
NOAEL : 900 mg/kg
Application Route : Ingestion
Exposure time : 6 Weeks

Species : Rat
NOAEL : > 1.06 mg/l
Application Route : inhalation (vapour)
Exposure time : 13 Weeks

Species : Guinea pig
NOAEL : 40 mg/kg
LOAEL : 200 mg/kg

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

Application Route : Skin contact
Exposure time : 13 Weeks

Methyl-1H-benzotriazole:

Species : Rat
NOAEL : 150 mg/kg
LOAEL : 450 mg/kg
Application Route : Ingestion
Exposure time : 28 Days
Method : OECD Test Guideline 407

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 500 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae/aquatic : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100
plants : mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

NOEC (Pseudokirchneriella subcapitata (green algae)): > 1
mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50: > 1,000 mg/l
Exposure time: 30 min
Method: OECD Test Guideline 209

2-(2-(2-butoxyethoxy)ethoxy)ethanol:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 2,200 - 4,600 mg/l
Exposure time: 96 h
Method: DIN 38412

BRAKE FLUID DOT 4 SUPER - 500ml

Version 6.1 Revision Date: 18.06.2024 SDS Number: 4601908-00012 Date of last issue: 11.05.2023
Date of first issue: 04.07.2019

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2,210 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): > 612.6 mg/l
Exposure time: 72 h

EC10 (Desmodesmus subspicatus (green algae)): 612.6 mg/l
Exposure time: 72 h

Toxicity to microorganisms : EC10: > 1,995 mg/l
Exposure time: 30 min

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Toxicity to fish : LC50 (Scophthalmus maximus (turbot)): > 1,800 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : ErC50 (Skeletonema costatum (marine diatom)): 391 mg/l
Exposure time: 72 h
Method: ISO 10253

EC10 (Skeletonema costatum (marine diatom)): 188 mg/l
Exposure time: 72 h
Method: ISO 10253

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l
Exposure time: 16 h
Remarks: Based on data from similar materials

2-(2-Methoxyethoxy)ethanol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 5,741 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,192 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): > 1,000 mg/l
Exposure time: 96 h

Toxicity to microorganisms : EC10 (Pseudomonas putida): > 1,000 mg/l
Exposure time: 17 h
Method: DIN 38 412 Part 8

BRAKE FLUID DOT 4 SUPER - 500ml

Version 6.1 Revision Date: 18.06.2024 SDS Number: 4601908-00012 Date of last issue: 11.05.2023
Date of first issue: 04.07.2019

Methyl-1H-benzotriazole:

Toxicity to fish : LC50 (Cyprinodon variegatus (sheepshead minnow)): 55 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Acartia tonsa (Calanoid copepod)): 55 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : NOEC (Skeletonema costatum (marine diatom)): 30 mg/l
Exposure time: 72 h

ErC50 (Skeletonema costatum (marine diatom)): 53 mg/l
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10 (Daphnia galeata (water flea)): > 0.1 - 1 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
Remarks: Based on data from similar materials

Persistence and degradability**Components:****Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate:**

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 70 %
Exposure time: 22 d
Method: OECD Test Guideline 301A

2-(2-(2-butoxyethoxy)ethoxy)ethanol:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 85 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 69 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

2-(2-Methoxyethoxy)ethanol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 100 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Methyl-1H-benzotriazole:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 4 %

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue:
6.1	18.06.2024	4601908-00012	11.05.2023
			Date of first issue: 04.07.2019

Exposure time: 28 d
Method: Directive 67/548/EEC Annex V, C.4.D.

Bioaccumulative potential**Components:****2-(2-(2-butoxyethoxy)ethoxy)ethanol:**

Partition coefficient: n-
octanol/water : log Pow: 0.51

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Partition coefficient: n-
octanol/water : log Pow: 0.436

2-(2-Methoxyethoxy)ethanol:

Partition coefficient: n-
octanol/water : log Pow: -0.47

Methyl-1H-benzotriazole:

Partition coefficient: n-
octanol/water : log Pow: 1.081
Method: OECD Test Guideline 117

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Do not dispose of waste into sewer.

Dispose of in accordance with local regulations.

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.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

UN number : Not applicable
Proper shipping name : Not applicable

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

Class : Not applicable
 Subsidiary risk : Not applicable
 Packing group : Not applicable
 Labels : Not applicable
 Environmentally hazardous : no

IATA-DGR

UN/ID No. : Not applicable
 Proper shipping name : Not applicable
 Class : Not applicable
 Subsidiary risk : Not applicable
 Packing group : Not applicable
 Labels : Not applicable
 Packing instruction (cargo aircraft) : Not applicable
 Packing instruction (passenger aircraft) : Not applicable

IMDG-Code

UN number : Not applicable
 Proper shipping name : Not applicable
 Class : Not applicable
 Subsidiary risk : Not applicable
 Packing group : Not applicable
 Labels : Not applicable
 EmS Code : Not applicable
 Marine pollutant : Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations
ADG

UN number : Not applicable
 Proper shipping name : Not applicable
 Class : Not applicable
 Subsidiary risk : Not applicable
 Packing group : Not applicable
 Labels : Not applicable
 Hazchem Code : Not applicable

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, health and environmental regulations/legislation specific for the substance or mixture

Therapeutic Goods (Poisons Standard) Instrument : Schedule 6 (Please use the original publication to check for specific uses, specific conditions or threshold limits that might apply for this chemical)

Prohibition/Licensing Requirements : There is no applicable prohibition,

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

authorisation and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: < 5.33 g/l

The components of this product are reported in the following inventories:

AIIC : All ingredients listed or exempt.

SECTION 16: ANY OTHER RELEVANT INFORMATION
Further information

Revision Date : 18.06.2024

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/>

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA : 8-hour, time-weighted average

ACGIH / STEL : Short-term exposure limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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 Organisation 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New

BRAKE FLUID DOT 4 SUPER - 500ml

Version	Revision Date:	SDS Number:	Date of last issue: 11.05.2023
6.1	18.06.2024	4601908-00012	Date of first issue: 04.07.2019

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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECL - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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.

AU / EN