

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/24/2020

 Version 1

Reviewed on 05/01/2020

1 Identification

Product identifier
Trade name: Original ATE Brake Fluid SUPER DOT 5.1
Article number: 03.9901-66xx.x/7066xx

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

No further relevant information available.

Application of the substance / the mixture hydraulic liquid

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

Continental Aftermarket & Services GmbH

Sodener Straße 9

D-65824 Schwalbach am Taunus

Germany

Tel: +49-69-7603-11

Fax: +49-69-761061

Information department:

Gefahrstoffmanagement Konzern, Zentrales Materiallabor

ate.sicherheit@contiautomotive.com

Emergency telephone number: +49-6132-84463 (24 h) 190 languages spoken

2 Hazard(s) identification

Classification of the substance or mixture


Health hazard

Suspected of damaging fertility or the unborn child.

Label elements
GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms GHS08

Signal word Warning

Hazard-determining components of labeling:

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

Hazard statements

H361 Suspected of damaging fertility or the unborn child.

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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

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

P405 Store locked up.

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

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Classification system:
NFPA ratings (scale 0 - 4)

 Health = 0
 Fire = 1
 Reactivity = 0

HMIS-ratings (scale 0 - 4)

 Health = *1
 Fire = 1
 Reactivity = 0

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

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures
Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

| | | |
|------------|--|-------|
| 30989-05-0 | Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate Repr. 2 | <70% |
| | Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol Eye Dam. 1 Specific concentration limits: Eye Dam. 1; H318: C ≥ 30 % Eye Irrit. 2; H319: 20 % ≤ C < 30 % | <15% |
| 110-97-4 | 1,1'-iminodipropan-2-ol Eye Irrit. 2A | <2% |
| 111-46-6 | 2,2'-oxybisethanol Acute Tox. 4 | <2% |
| 111-77-3 | 2-(2-methoxyethoxy)ethanol Repr. 2; Flam. Liq. 4 | <0.5% |

4 First-aid measures

Description of first aid measures
General information: Remove contaminated clothes and shoes immediately.

After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing:

Rinse out mouth and then drink plenty of water.

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Seek medical treatment.

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

Extinguishing media

Suitable extinguishing agents:

Water spray

Fire-extinguishing powder

Foam

Use fire fighting measures that suit the environment.

Special hazards arising from the substance or mixture

May be released in case of fire: CO, CO₂, NO_x.

Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions: 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).

Dispose of the collected material according to regulations.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Protective Action Criteria for Chemicals

PAC-1:

| | | |
|----------|----------------------------|---------|
| 111-46-6 | 2,2'-oxybisethanol | 6.9 ppm |
| 111-77-3 | 2-(2-methoxyethoxy)ethanol | 3.4 ppm |

PAC-2:

| | | |
|----------|----------------------------|---------|
| 111-46-6 | 2,2'-oxybisethanol | 140 ppm |
| 111-77-3 | 2-(2-methoxyethoxy)ethanol | 37 ppm |

PAC-3:

| | | |
|----------|--------------------|---------|
| 111-46-6 | 2,2'-oxybisethanol | 860 ppm |
|----------|--------------------|---------|

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111-77-3 | 2-(2-methoxyethoxy)ethanol

220 ppm

7 Handling and storage

Handling:

Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: Protect against electrostatic charges.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store cool and dry.

Storage at room temperature.

Information about storage in one common storage facility:

Store away from water.

Store away from foodstuffs.

Further information about storage conditions:

Recommended storage temperature: 10°C - 35°C.

This product is hygroscopic.

Keep receptacle tightly sealed.

Storage class according to TRGS 510: 10 combustible liquids.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

111-46-6 2,2'-oxybisethanol

WEEL | Long-term value: 10 mg/m³

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Breathing equipment:

Respiratory protection required in case of release of vapors / aerosols.

Use particulate filter with medium retention capacity for solid and liquid particles (eg EN 143 or 149, type P2 or FFP2).

Protection of hands:

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

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Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

Butyl caoutchouc (butyl rubber): minimum breakthrough time 480 min; minimum layer thickness: 0.7 mm

NBR (nitrile rubber): minimum breakthrough time 30 min; minimum layer thickness: 0.4 mm

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

Eye protection: Safety glasses

Body protection: Protective work clothing

Limitation and supervision of exposure into the environment

See section 6 and 7. No additional measures necessary.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

| | |
|------------------------|------------------|
| Form: | Fluid |
| Color: | Amber colored |
| Odor: | Product specific |
| Odor threshold: | Not determined. |

pH-value at 20 °C (68 °F): 7.7

Change in condition

| | |
|-------------------------------------|-------------------|
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | 271 °C (519.8 °F) |

Flash point: 137.5 °C (279.5 °F)

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 230 °C (446 °F)

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

| | |
|---------------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

Vapor pressure at 20 °C (68 °F): 1 hPa (0.8 mm Hg)

Density at 20 °C (68 °F): 1.06 g/cm³ (8.846 lbs/gal)

Relative density Not determined.

Vapor density Not determined.

Evaporation rate Not determined.

Water: Fully miscible.

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Partition coefficient (n-octanol/water): Not determined.

Viscosity:
Dynamic: Not determined.

Kinematic at 20 °C (68 °F): 11.5 mm²/s

Solvent content:
Organic solvents: 2.1-<2.5 %

VOC content: 2.1-<2.5 %

Other information No further relevant information available.

10 Stability and reactivity

Reactivity No further relevant information available.

Chemical stability
Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products:

Carbon monoxide and carbon dioxide

 Nitrogen oxides (NO_x)

11 Toxicological information

Information on toxicological effects
Acute toxicity:
LD/LC50 values that are relevant for classification:
30989-05-0 Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate

Oral LD50 >2,000 mg/kg (rat) (OECD 401)

Dermal LD50 >2,000 mg/kg (rat) (OECD 402)

Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol

Oral LD50 >5,000 mg/kg (rat)

Dermal LD50 >3,000 mg/kg (rabbit)

110-97-4 1,1'-iminodipropan-2-ol

Oral LD50 >2,000 mg/kg (rat) (OECD 401)

Dermal LD50 8,000 mg/kg (rabbit)

111-46-6 2,2'-oxybisethanol

Oral LD50 >5,000 mg/kg (rat)

Dermal LD50 >5,000 mg/kg (rabbit)

111-77-3 2-(2-methoxyethoxy)ethanol

Oral LD50 >5,000 mg/kg (mouse) (OECD 401)

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| | | |
|--------|------|----------------------------------|
| Dermal | LD50 | >5,000 mg/kg (rabbit) (OECD 402) |
|--------|------|----------------------------------|

Primary irritant effect:

on the skin: No irritant effect.

on the eye: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

NTP (National Toxicology Program)

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

Toxic to reproduction

Some evidence of adverse effects on development, based on animal experiments.

12 Ecological information

Toxicity

Aquatic toxicity:

| | |
|------|------------------|
| LC50 | >100 mg/L (fish) |
|------|------------------|

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

| | |
|------|----------------------------|
| EC50 | >100 mg/l (Algae) (72 h) |
| | >100 mg/l (daphnia) (48 h) |
| LC50 | >100 mg/L (fish) (96 h) |

Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol

| | |
|------|-----------------------------------|
| EC50 | >100 mg/l (Algae) |
| LC50 | >100 mg/L (daphnia) |
| | >100 mg/L (fish) (DIN 38412 96 h) |

110-97-4 1,1'-iminodipropan-2-ol

| | |
|---------------|--------------------------------------|
| EC50 (static) | >100 mg/l (Algae) (72 h) |
| | >100 mg/l (daphnia) (92/69/EWG 48 h) |
| LC50 (static) | >100 mg/L (fish) (OECD 203 96 h) |

111-46-6 2,2'-oxybisethanol

| | |
|------|--------------------------------------|
| EC50 | >100 mg/l (Algae) |
| | >100 mg/l (daphnia) (DIN 38412 T.11) |
| LC50 | >100 mg/L (fish) (96 h) |

111-77-3 2-(2-methoxyethoxy)ethanol

| | |
|---------------|---------------------|
| EC50 | >100 mg/l (Algae) |
| | >100 mg/l (daphnia) |
| LC50 (static) | >100 mg/L (fish) |

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Persistence and degradability The single components are easily eliminable from water.

Behavior 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 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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

Disposal should be based on the relevant state and local laws and regulations, the disposal process should avoid pollution of the environment.

Recommendation:

After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.

Uncleaned packagings:

Recommendation:

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

UN-Number

DOT, ADR, IMDG, IATA

Void

UN proper shipping name

DOT

Void

ADR, IMDG, IATA

Void

Transport hazard class(es)

DOT, ADR, IMDG, IATA

Class

Void

Packing group

DOT, ADR, IMDG, IATA

Void

Environmental hazards:

Not applicable.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code

Not applicable.

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UN "Model Regulation": Void

15 Regulatory information

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

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

111-77-3 | 2-(2-methoxyethoxy)ethanol

TSCA (Toxic Substances Control Act): All ingredients comply with TSCA requirements.

Hazardous Air Pollutants

None of the ingredients are listed.

Carcinogenicity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients are listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

National regulations:

Information about limitation of use:

Employment restrictions concerning pregnant and lactating women must be observed.

Other regulations, limitations and prohibitive regulations

please note:

Californian Proposition 65 Warning is necessary:

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Chemical safety assessment: A Chemical Safety Assessment has not 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.

Recommended restriction of use For industrial or professional purposes only.

Department issuing SDS:

Gefahrstoffmanagement Konzern
ate.sicherheit@contiautomotive.com

Date of preparation / last revision 05/01/2020 / -

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Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Repr. 2: Reproductive toxicity – Category 2

Sources

<http://echa.europa.eu/information-on-chemicals/cl-inventory>

<http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>

http://www.reach-clp-biozid-helpdesk.de/de/Downloads/CLP-VO/CLP_VO_Anhang_VI_Tabelle_3_2.pdf

<https://www.epa.gov/tsca-inventory>

<https://www.cdc.gov/niosh/index.htm>

<https://www.osha.gov/>

<http://www.iarc.fr/>

*** Data compared to the previous version altered.**