Safety Data Sheet
acc. to OSHA HCS

Printing date 04/30/2020 Version 9 Reviewed on 04/01/2020

*
1 Identification

Product identifier

Trade name: Original ATE Brake Fluid SL (DOT 4)

Article number: 03.9901-58xx.x / 7058xx
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
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.
Classification system:
NFPA ratings (scale 0 - 4)

Health = 0
Fire = 1
Reactivity = 0

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS

Trade name: Original ATE Brake Fluid SL (DOT 4)

(Contd. of page 1)

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	≥30-<50%
	Repr. 2	
	Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	≥10-<20%
	Eye Dam. 1 Specific concentration limits: Eye Dam. 1; H318: C ≥ 30 % Eye Irrit. 2; H319: 20 % ≤ C < 30 %	
111-46-6	2,2'-oxybisethanol	<10%
	Acute Tox. 4	
110-97-4	1,1'-iminodipropan-2-ol	<2%
	Eye Irrit. 2A	

*
4 First-aid measures

Description of first aid measures
General information: Remove contaminated clothes and shoes immediately.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Call a doctor immediately.
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:
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.
For safety reasons unsuitable extinguishing agents: Water with full jet

(Contd. on page 3)

Safety Data Sheet
acc. to OSHA HCS

Printing date 04/30/2020 Version 9 Reviewed on 04/01/2020

Trade name: Original ATE Brake Fluid SL (DOT 4)

(Contd. of page 2)

Special hazards arising from the substance or mixture
May be released in case of fire: CO, CO2, NOx.
Advice for firefighters
Protective equipment:
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.

*
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 product to reach sewage system or any water course.
Do not allow to penetrate the ground/soil.
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
PAC-2:		
111-46-6	2,2'-oxybisethanol	140 ppm
PAC-3:		
111-46-6	2,2'-oxybisethanol	860 ppm

*
7 Handling and storage

Handling:
Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: Storage at room temperature.
Information about storage in one common storage facility:
Not required.
Store away from foodstuffs.
Further information about storage conditions:
This product is hygroscopic.
Store in dry conditions.
Keep receptacle tightly sealed.
Storage class according to TRGS 510: 10 combustible liquids.
Specific end use(s) No further relevant information available.

(Contd. on page 4)

Safety Data Sheet
acc. to OSHA HCS

Trade name: Original ATE Brake Fluid SL (DOT 4)

(Contd. of page 3)

*

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:	
111-46-6 2,2'-oxybisethanol	
WEEL	Long-term value: 10 mg/m³

Additional information:
Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

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
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:	Yellow
Odor:	Characteristic
Odor threshold:	Not determined.
pH-value at 20 °C (68 °F):	8.5

(Contd. on page 5)

Safety Data Sheet
acc. to OSHA HCS

Printing date 04/30/2020 Version 9 Reviewed on 04/01/2020

Trade name: Original ATE Brake Fluid SL (DOT 4)

(Contd. of page 4)

Change in condition	
Melting point/Melting range:	<-70 °C (<-94 °F)
Boiling point/Boiling range:	>260 °C (>500 °F)
Flash point:	>125 °C (>257 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	210 °C (410 °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:	1.5 Vol %
Vapor pressure at 20 °C (68 °F):	1.3 hPa (1 mm Hg)
Density at 20 °C (68 °F):	1.065 g/cm³ (8.887 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Water:	Fully miscible.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic at 20 °C (68 °F):	16 mm²/s
Solvent content:	
Organic solvents:	8.0 %
VOC content:	8.00 %
Solids content:	1.5 %
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 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 (NOx)

(Contd. on page 6)

Safety Data Sheet
acc. to OSHA HCS

Printing date 04/30/2020 Version 9 Reviewed on 04/01/2020

Trade name: Original ATE Brake Fluid SL (DOT 4)

(Contd. of page 5)

*

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)
111-46-6 2,2'-oxybisethanol		
Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>5,000 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)

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:	
EC50	6.25 mg/l (bacteria)
	250-350 mg/l (fish) (DIN 38412 96 h)

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)

(Contd. on page 7)

Safety Data Sheet
acc. to OSHA HCS

Printing date 04/30/2020 Version 9 Reviewed on 04/01/2020

Trade name: Original ATE Brake Fluid SL (DOT 4)

(Contd. of page 6)

LC50	>100 mg/L (daphnia)
	>100 mg/L (fish) (DIN 38412 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)
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)

Persistence and degradability No further relevant information available.
Other information: The product is easily biodegradable.
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, ADR, IMDG, IATA**	Void
Transport hazard class(es) **DOT, ADR, IMDG, IATA** **Class**	Void

(Contd. on page 8)

Safety Data Sheet
acc. to OSHA HCS

Printing date 04/30/2020 Version 9 Reviewed on 04/01/2020

Trade name: Original ATE Brake Fluid SL (DOT 4)

(Contd. of page 7)

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.
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):
None of the ingredients are listed.

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

Hazardous Air Pollutants
None of the ingredients are listed.

Proposition 65

Chemicals known to cause cancer:
None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.

Chemicals known to cause developmental toxicity:
None of the ingredients are listed.

Cancerogenity 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.
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

(Contd. on page 9)

Safety Data Sheet
acc. to OSHA HCS

Trade name: Original ATE Brake Fluid SL (DOT 4)

(Contd. of page 8)

*
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 04/30/2020 / 8
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)
HMIS: 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
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.**