



ABS Brakefluid DOT 3

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Issue date: 9-5-2014 Revision date: 7-6-2021 Supersedes: 17-8-2017 Version: 3.0

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

1.1. Product identifier

Product form : Mixture
Product name : ABS Brakefluid DOT 3
Product code : V100555010
Product group : Trade product

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : Industrial use, professional use, Consumer use
Use of the substance/mixture : Brake fluid.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ABS All Brake Systems B.V.
PO Box 293
3400 AG IJSSELSTEIN - The Netherlands
T 030-6861200 - F 030-6861249
mba@abs-bv.nl

1.4. Emergency telephone number

Emergency number : +(31)(0)30-6861200
(Monday to Friday: 8:00 - 17:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Precautionary statements (CLP) : P102 - Keep out of reach of children.
EUH-statements : EUH208 - Contains dihydro-3-(tetrapropenyl)furan-2,5-dione. May produce an allergic reaction.
Child-resistant fastening : Not applicable
Tactile warning : Not applicable

2.3. Other hazards

Other hazards not contributing to the classification : Attacks some forms of plastics, rubber, and coatings.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutylether; butoxytriethylene glycol	(CAS-No.) 143-22-6 (EC-No.) 205-592-6 (EC Index-No.) 603-183-00-0 (REACH-no) 01-21195457107-38	10 – 25	Eye Dam. 1, H318
2,2' -oxybisethanol; diethylene glycol	(CAS-No.) 111-46-6 (EC-No.) 203-872-2 (EC Index-No.) 603-140-00-6 (REACH-no) 01-2119457857-21	10 – 25	Acute Tox. 4 (Oral), H302
2-(2-methoxyethoxy)ethanol	(CAS-No.) 111-77-3 (EC-No.) 203-906-6 (EC Index-No.) 603-107-00-6 (REACH-no) 01-2119475100-52	1 – 3	Repr. 2, H361d

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Seek medical attention if ill effect develops.
First-aid measures after inhalation	: Take victim to fresh air, in a quiet place, in an half laying position and if necessary take medical advice. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical attention if ill effect or irritation develops.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Ensure adequate flushing of eyes by separating eyelids with the fingers. Obtain medical attention if pain, blinking, tears or redness persist.
First-aid measures after ingestion	: Consult a doctor/medical service if you feel unwell. If vomiting occurs spontaneously, keep head below the hips to prevent aspiration. Do not induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.
Symptoms/effects after skin contact	: Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis. High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.
Symptoms/effects after eye contact	: Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.
Symptoms/effects after ingestion	: Bad taste. Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea.
Symptoms/effects upon intravenous administration	: Unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: carbon dioxide (CO ₂), dry chemical powder, foam. Water fog.
Unsuitable extinguishing media	: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Combustion generates: CO, CO ₂ .
Explosion hazard	: Not expected to be a fire/explosion hazard under normal conditions of use.

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5.3. Advice for firefighters

Precautionary measures fire	: Do not enter fire area without proper protective equipment, including respiratory protection.
Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Use self-contained breathing apparatus and chemically protective clothing.
Other information	: Prevent fire fighting water from entering the environment. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Spill area may be slippery. Prevent soil and water pollution. Prevent entry to sewers and public waters.
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6.1.1. For non-emergency personnel

Protective equipment	: When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required. Use protective clothing.
Emergency procedures	: Consider evacuation.

6.1.2. For emergency responders

Protective equipment	: When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.
Emergency procedures	: No specific measures are necessary.

6.2. Environmental precautions

Dike for recovery or absorb with appropriate material. Notify authorities if product enters sewers or public waters. Prevent soil and water pollution. Prevent liquid from entering sewers, watercourses, underground or low areas. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.3. Methods and material for containment and cleaning up

For containment	: Large quantities: Contain large spillage with sand or earth.
Methods for cleaning up	: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Take up large spills with pump or vacuum and finish with dry chemical absorbent.
Other information	: Use suitable disposal containers. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.
Precautions for safe handling	: Avoid prolonged and repeated contact with skin. May be dangerously slippery if spilled. Where contact with eyes or skin is likely, wear suitable protection. Do not eat, drink or smoke during use. Remove contaminated clothing and shoes.
Hygiene measures	: Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Where contact with eyes or skin is likely, wear suitable protection. Wash contaminated clothing before reuse.

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7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep container tightly closed and in well ventilated place.
Storage conditions	: Keep only in original container.
Incompatible products	: Reacts vigorously with strong oxidizers and acids.
Maximum storage period	: 2 year
Storage temperature	: ≤ 40 °C
Information on mixed storage	: Keep away from : oxidizing materials. Strong acids.
Storage area	: Store at ambient temperature.
Special rules on packaging	: Keep container tightly closed and dry.

7.3. Specific end use(s)

Brake fluid.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2,2'-oxybisethanol; diethylene glycol (111-46-6)

Ireland - Occupational Exposure Limits

Local name	Diethylene glycol
OEL (8 hours ref) (mg/m³)	100 mg/m³
OEL (8 hours ref) (ppm)	23 ppm

United Kingdom - Occupational Exposure Limits

Local name	2,2'-Oxydiethanol
WEL TWA (mg/m³)	101 mg/m³
WEL TWA (ppm)	23 ppm

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

EU - Occupational Exposure Limits

IOELV TWA (mg/m³)	50,1 mg/m³
IOELV STEL (mg/m³)	10 mg/m³

Ireland - Occupational Exposure Limits

Local name	2-(2-Methoxyethoxy)ethanol
OEL (8 hours ref) (mg/m³)	50,1 mg/m³
OEL (8 hours ref) (ppm)	10 ppm
Notes (IE)	Sk, IOELV

Malta - Occupational Exposure Limits

Local name	2-(2-Methoxyethoxy) ethanol
OEL TWA (mg/m³)	50,1 mg/m³
OEL TWA (ppm)	10 ppm

United Kingdom - Occupational Exposure Limits

Local name	2-(2-Methoxyethoxy) ethanol
WEL TWA (mg/m³)	50,1 mg/m³
WEL TWA (ppm)	10 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)

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8.2. Exposure controls

Appropriate engineering controls:

Large quantities: Contain large spillage with sand or earth.

Personal protective equipment:

Gloves. In case of splash hazard: safety glasses. Eye protection should only be necessary where liquid could be splashed or sprayed.

Materials for protective clothing:

PVC gloves. Nitrile rubber. Butyl-rubber protective gloves

Hand protection:

In case of repeated or prolonged contact wear gloves. The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream). The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).

Eye protection:

Eye protection should only be necessary where liquid could be splashed or sprayed

Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use. Avoid repeated or prolonged skin contact. If repeated skin contact or contamination of clothing is likely, protective clothing should be worn. Equipment should conform to EN 166.

Respiratory protection:

Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment. Respiratory protective equipment must be checked to ensure it fits correctly each time it is worn. Provided an air-filtering/air-purifying respirator is suitable, a filter for particulates can be used for mist or fume. Use filter type P or comparable standard. A combination filter for particles and organic gases and vapours (boiling point >65°C) may be required if vapour or abnormal odour is also present due to high product temperature. Use filter type AP or comparable standard.

Personal protective equipment symbol(s):



Environmental exposure controls:

See Heading 12. See Heading 6.

Consumer exposure controls:

PVC gloves. Nitrile-rubber protective gloves. Butylrubber protective gloves.

Other information:

Do not put the product-soaked rags into the pockets of working clothes. Do not use cloths stained with the product to dry hands. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke during use. Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: liquid
Appearance	: liquid.
Colour	: Yellow.
Odour	: odourless.
Odour threshold	: No data available
pH	: 7 – 11,5
Relative evaporation rate (butylacetate=1)	: < 0,1

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Melting point	: < -50 °C
Freezing point	: No data available
Boiling point	: > 230 °C
Flash point	: 110 °C
Auto-ignition temperature	: > 324 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour Pressure 20°C	: < 2 hPa
Relative vapour density at 20 °C	: > 1 (air=1)
Relative density	: No data available
Density	: 1,035 – 1,045 kg/l
Solubility	: Completely miscible with water.
Log Pow	: < 2
Viscosity, kinematic	: 10 – 20 mm²/s
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 0,6 – 7 vol %

9.2. Other information

Other properties	: Gas/vapour heavier than air at 20°C.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid

Moisture. Overheating.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids.

10.6. Hazardous decomposition products

CO, CO₂.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Additional information	: Based on available data, the classification criteria are not met

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LD50 oral rat	2630 mg/kg
LD50 dermal rabbit	3540 mg/kg

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2,2' -oxybisethanol; diethylene glycol (111-46-6)	
LD50 oral rat	19600 mg/kg bodyweight
LD50 dermal rabbit	11890 mg/kg
LC50 Inhalation - Rat	> 4,6 mg/l air

Skin corrosion/irritation	: Not classified pH: 7 – 11,5
Serious eye damage/irritation	: Irritating to eyes. (OECD 404 method) pH: 7 – 11,5
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

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Viscosity, kinematic	10 – 20 mm²/s

Other information	: Toxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the toxicology of similar products. Likely route of exposure: ingestion, skin and eye.
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

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LC50 fish 1	> 1800 mg/l <i>Scophthalmus maximus</i>
LC50 other aquatic organisms 1	> 2490 mg/kg <i>Selenastrum capricornutum</i>
EC50 Daphnia 1	> 3200 mg/l EC50 48h - <i>Daphnia magna</i> [mg/l]

2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutylether; butoxytriethylene glycol (143-22-6)	
LC50 fish 1	75200 mg/l <i>Pimephales promelas</i>
EC50 Daphnia 1	> 10000 mg/l EC50 24h - <i>Daphnia magna</i> [mg/l]
NOEC chronic algae	> 100 mg/l <i>Pseudokirchneriella subcapitata</i>

2,2' -oxybisethanol; diethylene glycol (111-46-6)	
LC50 fish 1	> 5000 ppm
LC50 fish 2	75200 mg/l

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EC50 Daphnia 1	> 3200 mg/l EC50 48h - Daphnia magna [mg/l]
EC50 Daphnia 2	> 10000 mg/l
EC50 72h algae (1)	1054 mg/l Scenedesmus subspicatus
EC50 96h algae (1)	9362 mg/l

12.2. Persistence and degradability

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Persistence and degradability	Not readily biodegradable.
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2,2' -oxybisethanol; diethylene glycol (111-46-6)

Biochemical oxygen demand (BOD)	0,02 g O ₂ /g substance
Chemical oxygen demand (COD)	1,51 g O ₂ /g substance
ThOD	1,51 g O ₂ /g substance
BOD (% of ThOD)	0,015

12.3. Bioaccumulative potential

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Log Pow	< 2
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.

2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutylether; butoxytriethylene glycol (143-22-6)

Log Pow	0,51
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2,2' -oxybisethanol; diethylene glycol (111-46-6)

BCF fish 1	100
Bioconcentration factor (BCF REACH)	100
Log Pow	-1,98

12.4. Mobility in soil

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Mobility in soil	0,061
Ecology - soil	Spillages may penetrate the soil causing ground water contamination. This product floats on water and may affect the oxygen-balance in the water.

2,2' -oxybisethanol; diethylene glycol (111-46-6)

Surface tension	0,0485 N/m
Log Koc	0

12.5. Results of PBT and vPvB assessment

Component

2,2' -oxybisethanol; diethylene glycol (111-46-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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12.6. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Do not discharge into drains or the environment.
Additional information	: Hazardous waste.
Ecology - waste materials	: Every mixture with foreign substances such as solvents, brake- and cooling liquids is forbidden. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly. When not empty dispose of this container at hazardous or special waste collection point.
European List of Waste (LoW) code	: 16 01 13* - brake fluids

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

No data available

Rail transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
	For mixture	Added	
1.1	Name	Added	
2.2	EUH-statements	Added	
2.2	Precautionary statements (CLP)	Modified	
2.2	Hazard statements (CLP)	Modified	
3	Composition/information on ingredients	Modified	
9.1	Auto-ignition temperature	Modified	
9.1	Flash point	Modified	
11.1	ATE CLP (oral)	Modified	
11.1	ATE CLP (dermal)	Added	

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), 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
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H361d	Suspected of damaging the unborn child.
EUH208	Contains dihydro-3-(tetrapropenyl)furan-2,5-dione. May produce an allergic reaction.

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.