



Eni Brake Fluid DOT 5.1

Safety Data Sheet

According to Regulation (EU) No. 830/2015

Revision date: 24/07/2017

Version: 4.0

Supersedes: 12/06/2015

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

1.1. Product identifier

Product form : Mixture
Trade name : Eni Brake Fluid DOT 5.1
Product code : 7445
Type of product : Lubricants
Formula : 2407-2017
Product group : Trade product

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use
Industrial/Professional use spec : Used in closed systems
Wide dispersive use
Use of the substance/mixture : Brake fluid
Hydraulic fluid

Do not use the product for any purposes that have not been advised by the manufacturer.
Function or use category : Hydraulic fluids and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ENI S.p.A.
P.le E. Mattei 1 - 00144 ROMA Italy
Tel (+39) 06 59821
www.eni.com

Contact:
Refining & Marketing
Via Laurentina 449 00142 ROMA Italy
Tel (+39) 06 59881 Fax (+39) 06 59885700

Competent person responsible for the Safety Data Sheet (Reg. EC nr. 1907/2006): SDSInfo@eni.com

1.4. Emergency telephone number

Emergency number : CNIT +39 0382 24444 (24h) (IT + EN)

Poison centre (UK):
National Poisons Information Service Edinburgh (24h)
(+44) 844 892 0111
0870 600 6266 (UK only)
(Source: UN-WHO)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Aquatic Chronic 3 H412

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. May produce an allergic reaction. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. For specific information about the toxicological/ecotoxicological properties and classification of this product, see Sect. 11 and/or Sect. 12.

2.2. Label elements

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

CLP Signal word	: [None]
Hazard statements (CLP)	: H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (CLP)	: P101 - If medical advice is needed, have product container or label at hand P102 - Keep out of reach of children P273 - Avoid release to the environment P501 - Dispose of contents/container to according to national or local regulations
EUH-statements	: EUH208 - Contains Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine. May produce an allergic reaction
Child-resistant fastening	: No
Tactile warning	: No

Other:

General advice : (Not applicable - Classified as dangerous according to (EC) No 1272/2008)

2.3. Other hazards (not relevant for classification)

Physical/chemical	: Product with a very low risk of fire. It can create flammable mixtures or burn only when the water content has evaporated.
Health	: Any substance, in case of accidents involving pressurized circuits and the like, may be accidentally injected under the skin, even without external damage. In such a case, the victim should be brought to a hospital as soon as possible, to get specialized medical treatment.,Do not wait for symptoms to develop.
Environment	: None
Contaminants (air contaminants or other substances)	: None

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

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

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3.2. Mixture

Composition/information on ingredients : Synthetic base oil
Additives

Hazardous ingredients and/or with : See table
relevant occupational exposure limits

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
2,2' -oxybisethanol	(CAS No) 111-46-6 (EC No) 203-872-2 (EC Index No) 603-140-00-6 (REACH-no) 01-2119457857-21	1 - 5	Acute Tox. 4 (Oral), H302
Dicyclohexylamine	(CAS No) 101-83-7 (EC No) 202-980-7 (EC Index No) 612-066-00-3 (REACH-no) 01-2119493354-33	0,25 - 1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine	(EC No) 939-700-4 (EC Index No) N/A (REACH-no) 01-2119982395-25	0,1 - 1	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove to fresh air, keep the casualty warm and at rest. If symptoms persist call a doctor.
- First-aid measures after skin contact : Take off contaminated clothing and shoes. Wash thoroughly with soap and water. If inflammation or irritation persists, seek medical advice.
- First-aid measures after eye contact : Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well apart. Remove contact lenses, if present and easy to do so. If irritation persists, seek medical advice.
- First-aid measures after ingestion : If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink.

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

- Symptoms/injuries after inhalation : None under normal use.
- Symptoms/injuries after skin contact : Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. May cause an allergic skin reaction.
- Symptoms/injuries after eye contact : Contact with eyes may cause reddening and irritation.
- Symptoms/injuries after ingestion : Accidental ingestion of small quantities of the product may cause nausea, discomfort and gastric disturbances. If any, nausea and diarrhoea might occur.
- Symptoms/injuries upon intravenous administration : No information available.
- Chronic symptoms : None to be reported, according to the present classification criteria.

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

Treat symptomatically. Obtain medical attention if casualty has an altered state of consciousness or if symptoms do not resolve.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Dry powder. Carbon dioxide. Water spray. Other extinguishing gases (according to regulations).
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Product with a very low risk of fire. It can create flammable mixtures or burn only when the water content has evaporated.
- Explosion hazard : Heat may build pressure in tank and containers, rupturing closed vessels, spreading fire and increasing risk of burns and injuries.
- Combustion products : Incomplete combustion will generate poisonous carbon monoxide, carbon dioxide and other toxic gases.

5.3. Advice for firefighters

- Firefighting instructions : Stop or contain leak at the source, if safe to do so. If possible, move containers and drums away from danger area. Spilled product which is not burning should be covered with sand or foam. Use water sprays to cool containers and surfaces exposed to the flames. If the fire cannot be controlled, evacuate area.
- Special protective equipment for firefighters : Personal protection equipment for firefighters (see also sect. 8). Container device with compressed air (DIN EN 137). EN 469. EN 659.
- Other information : In case of fire, do not discharge residual product, waste materials and runoff water: collect separately and use a proper treatment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Stop or contain leak at the source, if safe to do so. Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares). Avoid direct contact with released material.

6.1.1. For non-emergency personnel

- Protective equipment : See Section 8.
- Emergency procedures : Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency.

6.1.2. For emergency responders

- Protective equipment : Small spillages: normal antistatic working clothes are usually adequate. Large spillages: full body suit of chemically resistant and antistatic material. If necessary heat resistant and insulated. Work gloves (preferably gauntlets) providing adequate chemical resistance. Gloves made of PVA are not water-resistant, and are not suitable for emergency use. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated. Antistatic non-skid safety shoes or boots, chemical resistant, if necessary heat resistant and insulated. Work helmet. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection: a half or full-face respirator with filter(s) for organic vapours (AX), or a Self-contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.
- Emergency procedures : Notify local authorities according to relevant regulations.

6.2. Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. In case of contamination of environment compartments (soil, subsoil, surface or underground waters), remove contaminated soil when possible, and in any case treat all involved compartments in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

- For containment : Contain spilled liquid with sand, earth or other suitable absorbents. Recover free liquid in suitable containers. Clean contaminated area. Dispose of according to local regulations. Large spillages may be cautiously covered with foam, if available, to limit fire risk. When inside buildings or confined spaces, ensure adequate ventilation. In case of contamination of environment compartments (soil, subsoil, surface or underground waters), remove contaminated soil when possible, and in any case treat all involved compartments in accordance with local regulations.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. This material and its container must be disposed of in a safe way, and according to local legislation.
- Other information : Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air/water temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. Local regulations may also prescribe or limit actions to be taken.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Use adequate personal protective equipment as needed. Use and store only in a dry and well-ventilated area. Keep containers tightly closed and properly labelled. Do not weld, solder, drill, cut or incinerate empty containers, unless they have been properly cleaned. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
- Hygiene measures : Avoid contact with skin and eyes. Do not breathe fume/ mist/ vapours. Do not ingest. Do not smoke. Do not eat and do not drink during use. Do not clean hands with dirty or oil-soaked rags. Do not re-use clothes, if they are still contaminated. Keep away from food and beverages.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in dry, well ventilated area. Keep away from open flames, hot surfaces and sources of ignition. Do not smoke.
- Incompatible products : Keep away from: strong oxidants.
- Storage area : Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.
- Packages and containers: : If the product is supplied in containers: Keep containers tightly closed and properly labelled. Keep only in the original container or in a suitable container for this kind of product.
- Packaging materials : For containers, or container linings use materials specifically approved for use with this product. Compatibility should be checked with the manufacturer. Keep only in the original container.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2,2' -oxybisethanol (111-46-6)		
Austria	MAK (mg/m ³)	44 mg/m ³
Austria	MAK (ppm)	10 ppm
Austria	MAK Short time value (mg/m ³)	176 mg/m ³
Austria	MAK Short time value (ppm)	40 ppm
Denmark	Grænseværdi (langvarig) (mg/m ³)	22 mg/m ³
Denmark	Grænseværdi (langvarig) (ppm)	5 ppm
Denmark	Grænseværdi (kortvarig) (mg/m ³)	11 mg/m ³
Denmark	Grænseværdi (kortvarig) (ppm)	2,5 ppm

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Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	10 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	44 ppm
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	40 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	176 ppm
Ireland	OEL (8 hours ref) (mg/m ³)	100 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	23 ppm
Latvia	OEL TWA (mg/m ³)	10 mg/m ³
Sweden	Nivågränsvärde (NVG) (mg/m ³)	45 mg/m ³
Sweden	Nivågränsvärde (NVG) (ppm)	10 ppm
Sweden	Kortidsvärde (KTV) (mg/m ³)	90 mg/m ³
Sweden	Kortidsvärde (KTV) (ppm)	20 ppm
United Kingdom	WEL TWA (mg/m ³)	101 mg/m ³
United Kingdom	WEL TWA (ppm)	23 ppm
Switzerland	VME (mg/m ³)	44 mg/m ³
Switzerland	VME (ppm)	10 ppm
Switzerland	VLE (mg/m ³)	176 mg/m ³
Switzerland	VLE (ppm)	40 ppm

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DNEL/DMEL (additional information)

Additional information Not applicable

PNEC (additional information)

Additional information Not applicable

Monitoring methods

: Monitoring procedures should be chosen according to the indications set by national authorities or labour contracts.,Refer to relevant legislation and in any case to the good practice of industrial hygiene.

Note

: The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the European REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

8.2. Exposure controls

Appropriate engineering controls

: Ensure good ventilation of the work station.

Personal protective equipment (for industrial or professional use)

: Gloves. Protective clothing. Safety glasses. Safety shoes or boots.



Hand protection	: Protective gloves. Adequate materials: nitrile (NBR), with a protection index ≥ 5 (permeation time ≥ 240 mins). Use gloves respecting all the conditions and within the limits set by the manufacturer. Replace gloves immediately in case of cuts, holes or other signs of damages or degradation. If necessary, refer to the EN 374 standard.
Eye protection	: Chemical goggles or safety glasses. DIN EN 166
Skin and body protection	: Long-sleeved overalls. If necessary, refer to the EN 340 and related standards, for definition of characteristics and performance according to the risk rating of the area.
Respiratory protection	: Not necessary with sufficient ventilation. Independently from other possible actions (technical modifications, operating procedures, and other means to limit the exposure of workers), personal protection equipment can be used according to necessity. In case of inadequate ventilation wear respiratory protection (EN 136/140/145). Combination filter device (DIN EN 141). High gas/vapour concentration: gas mask with filter type A
Thermal hazard protection	: None in normal use conditions.
Environmental exposure controls	: Do not discharge the product into the environment. Prevent discharge of undissolved substance to or recover from onsite wastewater. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.
Consumer exposure controls	: No special requirements necessary, if handled at room temperature.

8.3. Hygiene measures

General protective and hygienic measures	: Avoid contact with skin and eyes, Do not breathe vapours or mists., Do not clean hands with dirty or oil-soaked rags., Do not keep dirty rags in the overall pockets., Do not drink, eat or smoke with dirty hands., Wash hands with water and mild soap, do not use solvents or other irritant products which have a defatting effect on the skin., Do not re-use clothes, if they are still contaminated.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid, bright & clear.
Molecular mass	: Not applicable for mixtures
Colour	: Amber.
Odour	: characteristic.
Odour threshold	: There are no data available on the preparation/mixture itself.
pH	: No data available
Relative evaporation rate (butylacetate=1)	: Negligible.
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 260 °C
Flash point	: > 110 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1,06 g/cm ³ (20 °C) (ASTM D 4052)
Solubility	: No data available
Log Pow	: Not applicable for mixtures
Viscosity, kinematic	: 17 mm ² /s (20 °C)

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Viscosity, dynamic	: No data available
Explosive properties	: None.
Oxidising properties	: None.
Explosive limits	: No data available

9.2. Other information

Additional information : No data available

The above data (9.1 - 9.2) are typical values and do not constitute a specification.

SECTION 10: Stability and reactivity

10.1. Reactivity

This mixture does not offer any further hazard for reactivity, except what is reported in the following paragraphs.

10.2. Chemical stability

Stable product, according to its intrinsic properties (in normal conditions of storage and handling).

10.3. Possibility of hazardous reactions

None (in normal conditions of storage and handling).

10.4. Conditions to avoid

Overheating.

10.5. Incompatible materials

Strong oxidants and strong acids. Strong bases/alkalis.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition may produce : Toxic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met) (according to composition)
The ethylene glycol present in this formulation may cause intoxication, central nervous system depression (incoordination, dizziness), respiratory failure, liver and kidney damage.
The effects may be delayed.
The toxic (fatal) dose for pure ethylene glycol has been estimated 1.4 ml/kg wt (about 100 ml for an adult person).

ATE (oral)	16175,000 mg/kg bodyweight
ATE (dermal)	20202,000 mg/kg bodyweight

2,2' -oxybisethanol (111-46-6)	
LD50 oral rat	12565 mg/kg bodyweight
LD50 dermal rabbit	11890 mg/kg bodyweight

Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine	
LD50 oral rat	3313 mg/kg bodyweight
LD50 dermal rat	2000 mg/kg bodyweight

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met) (according to composition)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met) (according to composition)

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Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met) (according to composition) Contains a sensitizer (Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine). Amount contained in the product: 0,1 ÷ 0,99 % m/m max. May cause an allergic skin reaction
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met) (according to composition)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met) (according to composition)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met) (according to composition)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met) (according to composition)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met) (according to composition)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met) (according to composition)

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Viscosity, kinematic	17 mm ² /s (20 °C)
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Potential adverse human health effects and symptoms	: Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. May cause sensitization by skin contact. Slightly irritant to eyes.
Other information	: None.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. An uncontrolled release to the environment may produce a contamination of different environmental compartments (air, soil, underground, surface water bodies, aquifers). Handle according to general working hygiene practices to avoid pollution and release into the environment.
Ecology - water	: This product is soluble in water.

2,2' -oxybisethanol (111-46-6)

LC50 fish 1	> 1000 mg/l
EC50 Daphnia 1	> 10000 mg/l (24h)

Dicyclohexylamine (101-83-7)

LC50 fish 1	0,5 (0,1 - 1) mg/l
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Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine

LC50 fish 1	1,3 mg/l (OECD 203; 96 h; Brachydanio rerio)
EC50 Daphnia 1	1,4 mg/l (OECD 202; 48h)
EC50 other aquatic organisms 2	69 mg/l (OECD 209; IC50 3h; bacteria)

12.2. Persistence and degradability

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Persistence and degradability	The most significant constituents of the product should be considered as "readily biodegradable".
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Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine

Persistence and degradability	Not biodegradable.
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12.3. Bioaccumulative potential

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Log Pow	Not applicable for mixtures
Bioaccumulative potential	Not established.

12.4. Mobility in soil

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Ecology - soil	No data available.
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12.5. Results of PBT and vPvB assessment

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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

Results of PBT-vPvB assessment	The components in this formulation do not meet the criteria for classification as PBT or vPvB. The product should be considered as "Not persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)
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12.6. Other adverse effects

Other adverse effects	: None.
Additional information	: No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Do not dispose of the product, either new or used, by discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector.
Waste disposal recommendations	: European Waste Catalogue code(s) (Decision 2001/118/CE): 16 01 13* (brake fluids). This EWC code is only a general indication, and takes into account the original composition of the product and its intended use. The user has the responsibility of choosing the right EWC code, considering the actual use of the product, alterations and contaminations.
Additional information	: Empty containers may contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been cleaned, and declared safe.
Ecology - waste materials	: The product as it is does not contain halogenated substances.
EURAL code (EWC)	: 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 regulated for transport				
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
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
Other information : None.				

14.6. Special precautions for user

Special transport precautions	: None.
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- Overland transport

Transport regulations (ADR) : Not subject

- Transport by sea

Transport regulations (IMDG) : Not subject
Limited quantities (IMDG) : Not applicable

- Air transport

Transport regulations (IATA) : Not subject

- Inland waterway transport

Transport regulations (ADN) : Not subject

- Rail transport

Transport regulations (RID) : Not subject

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

IBC code : Not applicable.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	2,2' -oxybisethanol - Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methanamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methanamine
3.b. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	2,2' -oxybisethanol - Dicyclohexylamine - Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methanamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methanamine
3.c. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Eni Brake Fluid DOT 5.1 - Dicyclohexylamine - Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methanamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methanamine

No ingredients are included in the REACH Candidate list (> 0,1 % m/m).

Contains no REACH Annex XIV substances

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Relevant EU Legislation : Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). (et sequens).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (et sequens).
Directives 89/391/CEE, 89/654/CEE, 89/655/CEE, 89/656/CEE, 90/269/CEE, 90/270/CEE, 90/394/CEE, 90/679/CEE, 93/88/CEE, 95/63/CE, 97/42/CE, 98/24/CE, 99/38/CE, 99/92/CE, 2001/45/CE, 2003/10/CE, 2003/18/CE (Health and safety on the workplace)
Directive 98/24/EC (protection of the health and safety of workers from the risks related to chemical agents at work).
Directive 92/85/CE (measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding)
Directive 2012/18/CE (Control of major-accident hazards involving dangerous substances)
Directive 2004/42/CE (Limitation of emissions of Volatile Organic Compounds)

15.1.2. National regulations

National adoption of EU Directives concerning health and safety on the workplace.
National adoption of EU Directives concerning control of major-accident hazards involving dangerous substances (2012/18/CE).
Relevant national laws on prevention of water pollution.
Relevant national laws on protection of the health of pregnant workers (National adoption of Dir. 92/85/EEC).
National adoption of Directives 75/439/CEE - 87/101/CEE concerning disposal of used oils.

Germany

VwVwS Annex reference : Water hazard class (WGK) (D) 1, low hazard to waters (Classification according to VwVwS, Annex 4)
WGK remark : This evaluation is based on the real characteristics of the components and their combination, taking into account the information provided by the suppliers.
VbF class (D) : Not applicable.
Storage class (LGK) (D) : LGK 12 - Non-flammable liquids in non-flammable packages
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

Waterbezwaarlijkheid : 8 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Saneringsinspanningen : C - Lozing minimaliseren
SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling : None of the components are listed

Denmark

Recommendations Danish Regulation : Pregnant/breastfeeding women working with the product must not be in direct contact with it

15.2. Chemical safety assessment

For this mixture a chemical safety assessment has been not carried out

A chemical safety assessment has been carried out for the following components of this mixture:

2,2' -oxybisethanol

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Dicyclohexylamine
Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine

SECTION 16: Other information

Indication of changes:

Formula. Modification according to Regulation (EC) 830/2015.

Abbreviations and acronyms:

	Complete text of the H phrases quoted in this Safety Data Sheet. These phrases are reported here for information only, and MAY NOT correspond to the classification of the product.
	N/A = not applicable
	N/D = not available
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP calculator	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Effective concentration for 50 percent of test population (median effective concentration)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration for 50 percent of test population (median lethal concentration)
LD50	Lethal dose for 50 percent of test population (median lethal dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals, Regulation (EC) No 1907/2006
RID	Regulation concerning the International Carriage of Dangerous Goods by Railways
SDS	Safety Data Sheet
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative

- Data sources : This Safety Data Sheet is based on the real characteristics of the components and their combination, taking into account the information provided by the suppliers.
- Training advice : Provide adequate training to professional operators for the use of PPEs, according to the information contained in this Safety Data Sheet.
- Other information : Do not use the product for any purposes that have not been advised by the manufacturer.

Full text of H- and EUH-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
H301	Toxic if swallowed

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H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
EUH208	Contains . May produce an allergic reaction

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Aquatic Chronic 3	H412	Calculation method
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SDS EU (REACH Annex II) eni 2015

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