

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ADDINOL Brake Fluid

Revision date: 19.12.2018

Product code: 796014

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

1.1. Product identifier

ADDINOL Brake Fluid

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

Use of the substance/mixture

Brake fluid.

1.3. Details of the supplier of the safety data sheet

Company name:	ADDINOL Lube Oil GmbH	
	Gebäude 4609	
Street:	Am Haupttor	
Place:	D-06237 Leuna	
Telephone:	+49 (0) 3461 845-0	Telefax: +49 (0) 3461 845-555
e-mail:	info@addinol.de	
Contact person:	Application Technology	
Internet:	www.addinol.de	
Responsible Department:	ADDINOL Application Technology	

1.4. Emergency telephone number: +49 (0) 3461 845 222 - Only available during office hours.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements

Regulation (EC) No. 1272/2008

Special labelling of certain mixtures

EUH210 Safety data sheet available on request.

Additional advice on labelling

According to EC directives or the corresponding national regulations the product does not have to be labelled.

2.3. Other hazards

Spilled product must not leak into the ground.
Do not allow uncontrolled leakage of product into the environment.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
161907-77-3	Ethanol, 2-butoxy-, manufacture of, by-products from			< 15 %
	310-287-7			
	Eye Dam. 1; H318			
111-46-6	2,2' -oxybisethanol, diethylene glycol			< 10 %
	203-872-2	603-140-00-6		
	Acute Tox. 4; H302			
110-97-4	1,1'-iminodipropan-2-ol, di-isopropanolamine			< 2 %
	203-820-9	603-083-00-7		
	Eye Irrit. 2; H319			

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

Further Information

Classification system: The classification corresponds to the current EC lists and is completed by information from specialist literature and company information.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Self-protection of the first aider. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

After inhalation

Move victim to fresh air. Put victim at rest and keep warm. In case of breathing difficulties administer oxygen. If victim is at risk of losing consciousness, position and transport on their side.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Do NOT induce vomiting.

Rinse mouth thoroughly with water. Call a physician immediately.

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

No information available.

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

Foam. Extinguishing powder. Atomized water. Extinguishing powder

Unsuitable extinguishing media

High power water jet.

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5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon dioxide (CO₂). Carbon monoxide Nitrogen oxides (NO_x). carbon black.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings. Use water spray/stream to protect personnel and to cool endangered containers. In case of fire and/or explosion do not breathe fumes. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

High slip hazard because of leaking or spilled product. Remove all sources of ignition. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed containers for disposal. Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Refer to the provisions listed in Sections 8, 12 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Work in well-ventilated zones or use proper respiratory protection. Avoid oil mist. If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid contact with skin, eye and clothing.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Use only antistatically equipped (spark-free) tools.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep the packing dry and well sealed to prevent contamination and absorption of humidity. Keep container tightly closed in a cool place.

Advice on storage compatibility

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Recommended storage temperature: 5 - 40°C
Protect against: heat, UV-radiation/sunlight.

7.3. Specific end use(s)

Brake fluid. Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
111-46-6	Diethylene glycol	23	100		TWA (8 h) STEL (15 min)	
		-	-			

Additional advice on limit values

source:

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Protective and hygiene measures

Wash hands before breaks and after work. Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use. Do not eat, drink, smoke or sneeze at the workplace.

Eye/face protection

Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

Hand protection

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): DIN EN 374

Duration of wearing with permanent contact: 480 min

Suitable material: NBR (Nitrile rubber).

Thickness of glove material: 0.7 mm.

Wearing time with occasional contact (splashes): 30 min

Suitable material: NBR (Nitrile rubber).

Thickness of glove material: 0.4 mm

Protect skin by using skin protective cream.

Skin protection

Wear suitable protective clothing. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
 Colour: yellow
 Odour: characteristic

Test method

pH-Value (at 20 °C): 8,5

Changes in the physical state

Melting point: No data available

Initial boiling point and boiling range: > 260 °C

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Flash point: ca. 139 °C ASTM D 7094

Flammability

Solid: No data available

Gas: No data available

Explosive properties

No data available

Lower explosion limits: No data available

Upper explosion limits: No data available

Ignition temperature: > 200 °C DIN 51794

Auto-ignition temperature

Solid: No data available

Gas: No data available

Decomposition temperature: No data available

Oxidizing properties

No data available

Vapour pressure: No data available

(at 20 °C)

Density (at 20 °C): 1,055 - 1,075 g/cm³ DIN 51757

Water solubility: completely miscible

Solubility in other solvents

No data available

Partition coefficient: No data available

Viscosity / kinematic: 15 - 17 mm²/s FMVSS 116
(at 20 °C)

Vapour density: No data available

Evaporation rate: No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

Stable with proper care and handling.

10.2. Chemical stability

The product is chemically stable when handled and stored under normal conditions.

10.3. Possibility of hazardous reactions

No decomposition if used as intended.

10.4. Conditions to avoid

Do not overheat to avoid decomposition by heat.

Refer to chapter 7 No further action is necessary.

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition productsIn case of fire may be liberated: Carbon dioxide (CO₂). Carbon monoxide Nitrogen oxides (NO_x). carbon black.**SECTION 11: Toxicological information**

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11.1. Information on toxicological effects

Acute toxicity

No data available

Mixture not tested.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
111-46-6	2,2' -oxybisethanol, diethylene glycol				
	oral	ATE 500 mg/kg			
	dermal	LD50 11890 mg/kg	Rabbit		
110-97-4	1,1'-iminodipropan-2-ol, di-isopropanolamine				
	oral	LD50 4765 mg/kg	Rat		

Irritation and corrosivity

Irritant effect on the skin: Not an irritant.

Irritant effect on the eye: mild irritant.

Sensitising effects

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

No data available

STOT-repeated exposure

No data available

Specific effects in experiment on an animal

No data available

SECTION 12: Ecological information

12.1. Toxicity

Mixture related information:

Acute fish toxicity LC50: 96 h, Leuciscus idus 250 - 350 mg/l

Bacterial toxicity: EC50: 6,25 mg/l

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
111-46-6	2,2' -oxybisethanol, diethylene glycol					
	Acute fish toxicity	LC50 > 32000 mg/l	96 h	Gambusia affinis		
110-97-4	1,1'-iminodipropan-2-ol, di-isopropanolamine					
	Acute fish toxicity	LC50 > 1000- 2200 mg/l	96 h	Leuciscus idus		

12.2. Persistence and degradability

Individual components are biodegradable.

90 - 100% (28 d - OECD 301A)

70 - 80% (28 d - OECD 301B)

12.3. Bioaccumulative potential

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Bioconcentration factor (BCF) 100
source: literature value

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
111-46-6	2,2'-oxybisethanol, diethylene glycol	-1,98 (25°C)
110-97-4	1,1'-iminodipropan-2-ol, di-isopropanolamine	-0,82

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No data available

Further information

Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Must not be disposed of with domestic refuse. Do not allow to enter into surface water or drains.

Waste disposal number of waste from residues/unused products

160113 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08); brake fluids; hazardous waste

Contaminated packaging

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Dispose of waste according to applicable legislation. Packing which cannot be properly cleaned must be thrown away.

SECTION 14: Transport information

Land transport (ADR/RID)

- 14.1. UN number:** -
14.2. UN proper shipping name: -
14.3. Transport hazard class(es): -
14.4. Packing group: -

Inland waterways transport (ADN)

- 14.1. UN number:** -
14.2. UN proper shipping name: -
14.3. Transport hazard class(es): -
14.4. Packing group: -

Marine transport (IMDG)

- 14.1. UN number:** -
14.2. UN proper shipping name: -
14.3. Transport hazard class(es): -
14.4. Packing group: -

Air transport (ICAO-TI/IATA-DGR)

- 14.1. UN number:** -
14.2. UN proper shipping name: -

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14.3. Transport hazard class(es): -**14.4. Packing group:** -**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

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

not applicable

Other applicable information

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 3,5,7,9,13,14,15.

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
EUH210	Safety data sheet available on request.

Further Information

This mixture is classified as not hazardous according to Regulation (EC) 1272/2008 [GHS].

These given data only refer to the named product. If the product is used together with other materials or in manufacturing processes the data might not be applicable any more. The data are based on today's state of our knowledge and experience. They are, however, no guarantee of any specific product properties and do not established any legally valid contractual relationship.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)