

SAFETY DATA SHEET

VOXOM

according to Regulation (EC) No 1907/2006 (REACH) as amended

VOXOM BREMSFLÜSSIGKEIT DOT 5.1

Creation date 03rd February 2016
Revision date 30th November 2019 Version 2.0

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

- 1.1. Product identifier**
Substance / mixture VOXOM BREMSFLÜSSIGKEIT DOT 5.1
Other mixture names BRAKE FLUID DOT 5.1
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
Mixture's intended use The product is intended for sale to the consumer and the professional/industrial use.
Mixture uses advised against The product should not be used in ways other than those referred in Section 1.
- 1.3. Details of the supplier of the safety data sheet**
- Distributor**
Name or trade name Sport Import GmbH
Address Industriestr. 39, Edewecht, 26188
Germany
Phone 0049440592800
- Manufacturer**
Name or trade name Nacházel, s.r.o. 
Address Průmyslová 11/1472, Praha 10 - Hostivař, 10219
Czech Republic
Identification number (CRN) 25734458
VAT Reg No CZ25734458
Phone 222 351 140
E-mail maziva@nachazel.cz
Web address www.nachazel.cz
- Competent person responsible for the safety data sheet**
Name Nacházel, s.r.o.
E-mail maziva@nachazel.cz
- 1.4. Emergency telephone number**
National Health Service (NHS) 111
National poisoning information centre Scotland, NHS 24: 111
112

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture**
Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Eye Irrit. 2, H319

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse effects on human health and the environment

Causes serious eye irritation.

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2.2. Label elements

Hazard pictogram



Signal word

Warning

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P102 Keep out of reach of children.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended. In accordance with Article 29 (1) of the CLP Regulation, exemptions from Article 17 of the CLP Regulation may be used in the labeling of packaging with a volume of less than 125 ml.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and non-hazardous additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 603-183-00-0 CAS: 143-22-6 EC: 205-592-6	2-[2-(2-butoxyethoxy)ethoxy]ethanol	<20	Eye Dam. 1, H318 Specific concentration limit: Eye Dam. 1, H318: C ≥ 30 % Eye Irrit. 2, H319: 20 % ≤ C < 30 %	
Index: 603-140-00-6 CAS: 111-46-6 EC: 203-872-2 Registration number: 01-2119457857-21	2,2'-oxybisethanol	<10	Acute Tox. 4, H302 STOT RE 2, H373	
Index: 603-096-00-8 CAS: 112-34-5 EC: 203-961-6 Registration number: 01-2119475104-44-0006	2-(2-butoxyethoxy)ethanol	<3	Eye Irrit. 2, H319	2
Index: 603-107-00-6 CAS: 111-77-3 EC: 203-906-6	2-(2-methoxyethoxy)ethanol	<3	Repr. 2, H361d	1, 2

Notes

1 Substance for which exposure limits of Community for working environment exist.

2 The use of the substance is restricted by Annex XVII of REACH Regulation

Full text of all classifications and hazard statements is given in the section 16.

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SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air.

If on skin

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes. Provide medical treatment, specialized if possible.

If swallowed

DO NOT INDUCE VOMITING! Rinse out the mouth with water and provide 2-5 dL of water. Provide medical treatment if the person has any health problems.

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

If inhaled

Not expected.

If on skin

Not expected.

If in eyes

Causes serious eye irritation.

If swallowed

Irritation, nausea.

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

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of gases and vapours in concentrations exceeding the occupational exposure limits. Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose.

Storage class	12 - Other non-combustible liquids
Content	100ml / 1L
Packaging type	applicator / bottle
Material of package	HDPE (2), High-density (linear) polyethylene (Plastics)



min 0 °C, max 40 °C

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

European Union

Commission Directive 2006/15/EC

Substance name (component)	Type	Value	Note
2-(2-methoxyethoxy)ethanol (CAS: 111-77-3)	OEL 8 hours	50,1 mg/m ³	Skin
	OEL 8 hours	10 ppm	

European Union

EU limits

Substance name (component)	Type	Value	Note
2-(2-butoxyethoxy)ethanol (CAS: 112-34-5)	OEL 8 hours	67,5 mg/m ³	
	OEL 8 hours	10 ppm	
	OEL 15 minutes	101,2 mg/m ³	
	OEL 15 minutes	15 ppm	

United Kingdom of Great Britain and Northern Ireland

EH40/2005 Workplace exposure limits (Second edition, published 2011)

Substance name (component)	Type	Value	Note
2-(2-methoxyethoxy)ethanol (CAS: 111-77-3)	WEL 8h	50,1 mg/m ³	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.
	WEL 8h	10 ppm	

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DNEL

2-(2-butoxyethoxy)ethanol

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Dermal	20 mg/kg bw/day	Systemic chronic effects	
Workers	Inhalation	67.5 mg/m ³	Local chronic effects	
Workers	Dermal	20 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	50.6 mg/m ³	Local acute effects	
Consumers	Oral	1.25 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	34 mg/m ³	Systemic chronic effects	
Workers	Inhalation	101.2 mg/m ³	Local acute effects	

2,2' -oxybisethanol

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Dermal	106 mg/kg bw/day	Systemic chronic effects	
Workers	Inhalation	60 mg/m ³	Systemic chronic effects	
Consumers	Dermal	53 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	12 mg/m ³	Systemic chronic effects	

PNEC

2-(2-butoxyethoxy)ethanol

Route of exposure	Value	Determining method
Drinking water	1 mg/l	
Seawater	0.1 mg/l	
Freshwater sediment	4 mg/kg	
Sea sediments	0.4 mg/kg	
Microorganisms in wastewater treatment plants	200 mg/l	

2,2' -oxybisethanol

Route of exposure	Value	Determining method
Drinking water	10 mg/l	
Seawater	1 mg/l	
Freshwater sediment	20.9 mg/kg	
Sea sediments	2.09 mg/kg	
Soil (agricultural)	1.53 mg/kg	
Microorganisms in wastewater treatment plants	199.5 mg/l	

8.2. Exposure controls

Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles.

Skin protection

Hand protection: Protective gloves resistant to the product. Contaminated skin should be washed thoroughly.

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Respiratory protection

Halfmask with a filter against organic vapours or a self-contained breathing apparatus as appropriate if exposure limit values of substances are exceeded or in a poorly ventilated environment.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
physical state	liquid at 20 °C
color	yellow transparent
Odour	characteristic
Odour threshold	data not available
pH	7-10.5 (10% solution at 20 °C)
Melting point/freezing point	<-50 °C
Initial boiling point and boiling range	>260 °C
Flash point	>200 °C
Evaporation rate	data not available
Flammability (solid, gas)	data not available
Upper/lower flammability or explosive limits	
flammability limits	data not available
explosive limits	data not available
Vapour pressure	data not available
Vapour density	data not available
Relative density	1.01-1.07
Solubility(ies)	
solubility in water	data not available
solubility in fats	data not available
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	>300 °C
Decomposition temperature	>300 °C
Viscosity	data not available
Kinematic viscosity	5-10 mm ² /s at 40 °C
Explosive properties	data not available
Oxidising properties	data not available
data not available	

9.2. Other information

Density	data not available
ignition temperature	data not available

SECTION 10: Stability and reactivity

10.1. Reactivity

not available

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

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10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents. Thereby a dangerous exothermic reaction will be prevented.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

2-(2-butoxyethoxy)ethanol

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD ₅₀	3384 mg/kg		Rat (Rattus norvegicus)	
Dermal	LD ₅₀	2700 mg/kg		Rabbit	

2,2' -oxybisethanol

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD ₅₀	12565 mg/kg		Rat	
Dermal	LD ₅₀	11890 mg/kg		Rat	
Inhalation (dust/mist)	LC ₅₀	0.13 mg/l	4 hour	Rat (Rattus norvegicus)	
Oral	LD ₅₀	19600 mg/kg bw			

Skin corrosion/irritation

Based on available data the classification criteria are not met.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

Toxicity for specific target organ - single exposure

Based on available data the classification criteria are not met.

Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

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Aspiration hazard

Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. Based on available data the classification criteria are not met.

More information

data not available

SECTION 12: Ecological information**12.1. Toxicity****Acute toxicity**

Data not available.

2,2'-oxybisethanol

Parameter	Value	Time of exposure	Species	Environment
LC ₅₀	75200 mg/l		Fishes (Oncorhynchus mykiss)	
EC ₅₀	>10000 mg/l	72 hour	Other aquatic organisms	

More information

Data not available.

12.2. Persistence and degradability

The mixture is not biodegradable. The substance is not biodegradable.

12.3. Bioaccumulative potential

Insignificant.

12.4. Mobility in soil

The product is soluble and mobile in water and soil.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Other adverse effects

Not available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

16 01 13 brake fluids *

Packaging waste type code

15 01 02 plastic packaging

(*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

SECTION 14: Transport information**14.1. UN number**

Not subject to ADR

14.2. UN proper shipping name

not available

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14.3. Transport hazard class(es)

not available

14.4. Packing group

not available

14.5. Environmental hazards

not available

14.6. Special precautions for user

Reference in the Sections 4 to 8.

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

not available

SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th 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, as amended.

Restrictions pursuant to Annex XVII of Regulation (EC) No. 1907/2006 (REACH), as amended

2-(2-methoxyethoxy)ethanol

Restriction	Conditions of restriction
54	Shall not be placed on the market after 27 June 2010, for supply to the general public, as a constituent of paints, paint strippers, cleaning agents, self-shining emulsions or floor sealants in concentrations equal to or greater than 0,1 % by weight.

15.2. Chemical safety assessment

not available

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H302 Harmful if swallowed.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

Guidelines for safe handling used in the safety data sheet

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P102 Keep out of reach of children.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR European agreement concerning the international carriage of dangerous goods by road
BCF Bioconcentration Factor
CAS Chemical Abstracts Service
CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL Derived no-effect level
EC Identification code for each substance listed in EINECS
EC₅₀ Concentration of a substance when it is affected 50% of the population

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EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC ₅₀	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC ₅₀	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD ₅₀	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log K _{ow}	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative
Acute Tox.	Acute toxicity
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
Repr.	Reproductive toxicity
STOT RE	Specific target organ toxicity - repeated exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.
REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

More information

Classification procedure - calculation method.

Statement

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The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.