

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## kapalina brzdová FORCE DOT-4 Brake Fluid / Brake Fluid FORCE DOT-4

Creation date	03rd March 2017	Version	6.2
Revision date	12th July 2024		

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

**1.1. Product identifier** kapalina brzdová FORCE DOT-4 Brake Fluid / Brake Fluid  
FORCE DOT-4

Substance / mixture mixture  
UFI QMD4-20NY-300E-81EM

**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.

**Main intended use**

PC-TEC-8 Hydraulic fluids, including brake and transmission fluids

**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	KCK Cyklosport-Mode s.r.o.
Address	Bartošova 348, Otrokovice - Kvítkovice, 765 02 Czech Republic
Identification number (CRN)	18559751
VAT Reg No	CZ18559751
Phone	+420 577 002 077
E-mail	info@kckcyklosport.cz
Web address	www.kckcyklosport.cz

**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	+420 222 351 140
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**  
European emergency number: 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  
Repr. 2, H361d

**Most serious adverse physico-chemical effects**

Unknown.

**Most serious adverse effects on human health and the environment**

Suspected of damaging the unborn child. Causes serious eye irritation.

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## kapalina brzdvá FORCE DOT-4 Brake Fluid / Brake Fluid FORCE DOT-4

Creation date 03rd March 2017  
Revision date 12th July 2024 Version 6.2

### 2.2. Label elements

#### Hazard pictogram



#### Signal word

Warning

#### Hazardous substances

Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate  
2-(2-methoxyethoxy)ethanol

#### Hazard statements

H319 Causes serious eye irritation.  
H361d Suspected of damaging the unborn child.

#### Precautionary statements

P102 Keep out of reach of children.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
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.  
P501 Dispose of contents/container to be handed over to the person authorized to dispose of waste or by returning to the supplier.

#### Requirements for child-resistant fastenings and tactile warning of danger

Container must carry a tactile warning of danger.

### 2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. 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.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

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
CAS: 30989-05-0 EC: 250-418-4 Registration number: 01-2119462824-33	Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	40-50	Repr. 2, H361d	
EC: 907-996-4 Registration number: 01-2119531322-53	Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol	5-15	Eye Dam. 1, H318 Specific concentration limit: Eye Dam. 1, H318: C > 30 % Eye Irrit. 2, H319: 20 % ≤ C ≤ 30 %	
Index: 603-183-00-0 CAS: 143-22-6 EC: 205-592-6	2-[2-(2-butoxyethoxy)ethoxy]ethanol	1-5	Eye Dam. 1, H318 Specific concentration limit: Eye Dam. 1, H318: C ≥ 30 % Eye Irrit. 2, H319: 20 % ≤ C < 30 %	
Index: 603-107-00-6 CAS: 111-77-3 EC: 203-906-6	2-(2-methoxyethoxy)ethanol	1-5	Repr. 2, H361d	1, 2

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## kapalina brzdoVá FORCE DOT-4 Brake Fluid / Brake Fluid FORCE DOT-4

Creation date	03rd March 2017	Version	6.2
Revision date	12th July 2024		

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 603-140-00-6 CAS: 111-46-6 EC: 203-872-2 Registration number: 01-2119457857-21	2,2'-oxybisethanol	1-3	Acute Tox. 4, H302	
Index: 603-083-00-7 CAS: 110-97-4 EC: 203-820-9 Registration number: 01-2119475444-34	1,1'-iminodipropan-2-ol	1-2,5	Eye Irrit. 2, H319	

### Notes

- 1 A substance for which exposure limits are set.
- 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.

## 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 unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

#### If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

#### 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. Note: If the product sticks to the skin and cannot be removed using water and cleaning products or edible oil, do not use force and leave for specialized treatment.

#### 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. Note: If the product sticks to the skin of the eyelids and cannot be removed using water, do not use force and leave for specialized treatment.

#### If swallowed

DO NOT INDUCE VOMITING - even the inducing of vomiting by itself may cause complications (i.e. inhalation of the substance in airways and lungs, for example, in case of detergents and other substances that produce foam or mechanical damage to the mucous membrane of the pharynx may be caused). If possible, provide a small amount of activated carbon (1-2 crushed tablets). For persons with no symptoms, call the Toxicological Information Centre to decide about the need of medical treatment; provide information about the substances or composition of the product from the original packaging or the Safety Data Sheet of the product. Provide medical treatment if the person has any health problems.

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

#### If inhaled

Possible irritation of airways, cough, headache.

#### If on skin

Not expected.

#### If in eyes

Not expected.

#### If swallowed

Irritation, nausea.

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

Symptomatic treatment.

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## kapalina brzová FORCE DOT-4 Brake Fluid / Brake Fluid FORCE DOT-4

Creation date 03rd March 2017  
Revision date 12th July 2024 Version 6.2

### 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. Closed containers with the product near the fire should be cooled with water.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Provide sufficient ventilation. 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. Dispose of the collected material according to the instructions in 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.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Prevent formation of gases and vapours in concentrations exceeding the occupational exposure limits. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. No smoking. Protect against direct sunlight. Electrostatic charge may be formed during use; use only earthed piping (tubing) when repumping. Use of antistatic clothes and footwear is recommended. Use non-sparking tools. Do not inhale gases and vapours. Prevent contact with skin and eyes. 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. Do not expose to sunlight.

Content	Packaging type	Material of package
100 ml	dropper	HDPE
1 l	bottle	HDPE

Storage class

12 - Other non-combustible liquids

Storage temperature

min 0 °C, max 40 °C

#### The specific requirements or rules relating to the substance/mixture

Solvent vapours are heavier than air and accumulate especially near the floor where they may form an explosive mixture with the air.

#### 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.

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## kapalina brzdvá FORCE DOT-4 Brake Fluid / Brake Fluid FORCE DOT-4

Creation date 03rd March 2017  
Revision date 12th July 2024 Version 6.2

### 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 <sup>3</sup>	Skin
	OEL 8 hours	10 ppm	

### DNEL

2,2'-oxybisethanol					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Dermal	106 mg/kg bw/day	Chronic effects systemic		
Workers	Inhalation	60 mg/m <sup>3</sup>	Chronic effects systemic		
Consumers	Dermal	53 mg/kg bw/day	Chronic effects systemic		
Consumers	Inhalation	12 mg/m <sup>3</sup>	Chronic effects systemic		

### PNEC

2,2'-oxybisethanol			
Route of exposure	Value	Value determination	Source
Drinking water	10 mg/l		
Marine water	1 mg/l		
Freshwater sediment	20.9 mg/kg		
Sea sediments	2.09 mg/kg		
Soil (agricultural)	1.53 mg/kg		
Microorganisms in sewage treatment	199.5 mg/l		

### 8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. 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. If exposure limits cannot be observed in this mode, suitable protection of airways must be used.

#### Eye/face protection

Protective goggles or face shield (based on the nature of the work performed).

#### Skin protection

Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Use barrier creams for skin protection, they should, however, not be applied once exposure has occurred. Observe other recommendations of the manufacturer. Other protection: Protective antistatic clothing made of natural fibres (cotton) or synthetic fibres resistant to elevated temperatures. Contaminated skin should be washed thoroughly.

#### 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

Physical state liquid  
Colour colourless, yellow

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## kapalina brzdvá FORCE DOT-4 Brake Fluid / Brake Fluid FORCE DOT-4

Creation date	03rd March 2017	Version	6.2
Revision date	12th July 2024		

Odour	characteristic
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	>230 °C
Flammability	data not available
Lower and upper explosion limit	data not available
Flash point	>100 °C
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	7-10.5 (10% solution at 20 °C)
Kinematic viscosity	5-10 mm <sup>2</sup> /s at 40 °C
Solubility in water	data not available
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	data not available
Density and/or relative density	
Density	1.01-1.07 g/cm <sup>3</sup>
Relative vapour density	data not available
Particle characteristics	data not available
Form	liquid
<b>9.2. Other information</b>	
Ignition temperature	>300 °C

### 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.

#### 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

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

#### 10.6. Hazardous decomposition products

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

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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. No toxicological data is available for the mixture.

#### Acute toxicity

Harmful if swallowed.

1,1'-iminodipropan-2-ol					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>	4765 mg/kg		Rat (Rattus norvegicus)	
Dermal	LD <sub>50</sub>	8000 mg/kg		Rabbit	

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## kapalina brzdvá FORCE DOT-4 Brake Fluid / Brake Fluid FORCE DOT-4

Creation date 03rd March 2017  
Revision date 12th July 2024 Version 6.2

2,2'-oxybisethanol					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>	12565 mg/kg		Rat	
Dermal	LD <sub>50</sub>	11890 mg/kg		Rat	
Inhalation (dust/mist)	LC <sub>50</sub>	0.13 mg/l	4 hours	Rat (Rattus norvegicus)	
Oral	LD <sub>50</sub>	19600 mg/kg bw			

Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>	>5000 mg/kg		Rat (Rattus norvegicus)	
Dermal	LD <sub>50</sub>	3540 mg/kg		Rabbit	

### 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

Suspected of damaging the unborn child.

### 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.

### Aspiration hazard

Based on available data the classification criteria are not met.

## 11.2. Information on other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 12: Ecological information

### 12.1. Toxicity

not available

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## kapalina brzdvá FORCE DOT-4 Brake Fluid / Brake Fluid FORCE DOT-4

Creation date 03rd March 2017  
Revision date 12th July 2024 Version 6.2

### Acute toxicity

1,1'-iminodipropan-2-ol				
Parameter	Value	Exposure time	Species	Environment
LC <sub>50</sub>	>1000-2200 mg/l of air	96 hours	Fish (Leuciscus idus)	

  

2,2'-oxybisethanol				
Parameter	Value	Exposure time	Species	Environment
LC <sub>50</sub>	75200 mg/l		Fish (Oncorhynchus mykiss)	
EC <sub>50</sub>	>10000 mg/l	72 hours	Other aquatic organisms	

### 12.2. Persistence and degradability

not available

### 12.3. Bioaccumulative potential

Not available.

1,1'-iminodipropan-2-ol					
Parameter	Value	Exposure time	Species	Environment	Temperature [°C]
Log Pow	-0.82 mg/kg				

### 12.4. Mobility in soil

Not available.

### 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. Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

### 12.7. 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 10\* packaging containing residues of or contaminated by hazardous substances

15 01 02 plastic packaging

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

## SECTION 14: Transport information

### 14.1. UN number or ID number

not subject to transport regulations



# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## kapalina brzdoVá FORCE DOT-4 Brake Fluid / Brake Fluid FORCE DOT-4

Creation date 03rd March 2017  
Revision date 12th July 2024 Version 6.2

- 14.2. UN proper shipping name**  
not relevant
- 14.3. Transport hazard class(es)**  
not relevant
- 14.4. Packing group**  
not relevant
- 14.5. Environmental hazards**  
not relevant
- 14.6. Special precautions for user**  
Reference in the Sections 4 to 8.
- 14.7. Maritime transport in bulk according to IMO instruments**  
not relevant

### 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.

#### Guidelines for safe handling used in the safety data sheet

P102 Keep out of reach of children.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
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.  
P501 Dispose of contents/container to be handing over to the person authorized to dispose of waste or by returning to the supplier.

#### 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

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## kapalina brzová FORCE DOT-4 Brake Fluid / Brake Fluid FORCE DOT-4

Creation date	03rd March 2017	Version	6.2
Revision date	12th July 2024		

CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EC <sub>50</sub>	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC <sub>50</sub>	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD <sub>50</sub>	Lethal dose of a substance in which it can be expected death of 50% of the population
log Kow	Octanol-water partition coefficient
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
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
Repr.	Reproductive toxicity

### 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

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.