

**PENESAL SPRAY**

Creation date	18. October 2016	Version	2.0
Revision date	08. January 2018		

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

- 1.1. Product identifier**  
Substance / mixture  
PENESAL SPRAY  
mixture
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**  
mixture's intended use  
Disapproved uses of mixture  
Penetration spray.  
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**  
**Manufacturer**  
Name or trade name  
Address  
Identification number (ID)  
Phone  
E-mail  
AEROTEC GROUP a.s.  
U Kříže 632/24, Praha 5 Jinonice, 158 00  
Czech Republic  
05121311  
+420 605 050 050  
info@aerotec.cz
- Competent person responsible for the safety data sheet**  
Name  
E-mail  
AEROTEC GROUP a.s.  
info@aerotec.cz
- 1.4. Emergency telephone number**  
Poisoning information centre, Na Bojišti 1, Praha, Czech Republic, Tel.: non-stop +420 224 919 293 or +420 224 915 402, Information on health risks only - acute poisoning of humans and animals

**SECTION 2: Hazards identification**

- 2.1. Substance or mixture classification**  
**Classification of the mixture in accordance with Regulation (EC) No 1272/2008**  
The mixture is classified as dangerous.

Aerosol 1, H222, H229  
Asp. Tox. 1, H304  
Skin Irrit. 2, H315  
Skin Sens. 1, H317  
Eye Irrit. 2, H319  
Aquatic Chronic 3, H412

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

**Most serious adverse physico-chemical effects**

Extremely flammable aerosol. Pressurised container: May burst if heated.

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

May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

- 2.2. Label elements**

**Hazard pictogram****Signal word**

Danger

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**Hazardous substances**

Distillates (petroleum), heavy hydrocracked  
 Naphtha (petroleum), hydrotreated light  
 benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts  
 polysulfides, di-tert-Bu  
 benzene, mono-C10-14-alkyl derivs., fractionation bottoms, intermediate cut, sulfonated, sodium salts  
 reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 branched

**Hazard statements**

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P301+P310	IF SWALLOWED: Immediately call a.
P331	Do NOT induce vomiting.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding.
P501	Dispose of contents/container to by handing over to the person authorized to dispose of waste or by returning to the supplier.

**2.3. Other hazards**

Substance does not 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**
**Chemical characterization**

Mixture of substances specified below and additives.

**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: 649-453-00-1 CAS: 64741-76-0 EC: 265-077-7 Registration number: 01-2119486951-26	Distillates (petroleum), heavy hydrocracked	15-30	Asp. Tox. 1, H304	1, 3, 4
CAS: 68037-01-4 EC: 500-183-1	dec-1-ene, homopolymer, hydrogenated	10-20		
Index: 649-328-00-1 CAS: 64742-49-0 EC: 265-151-9	Naphtha (petroleum), hydrotreated light	1-10	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411	2, 5
EC: 939-603-7 Registration number: 01-2119978241-36	benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts	<1,5	Skin Sens. 1, H317	3
CAS: 12001-85-3 EC: 234-409-2	naphthenic acids, zinc salts	<1		
CAS: 90480-91-4 EC: 291-829-9	phenol, 2,2'-polythiobis[4-C8-30-alkyl derivs., calcium salts, overbased	<1	Aquatic Chronic 4, H413	

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Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
CAS: 68937-96-2 EC: 273-103-3	polysulfides, di-tert-Bu	<1	Skin Sens. 1, H317 Aquatic Chronic 3, H412	
CAS: 4259-15-8 EC: 224-235-5	zinc bis[O,O-bis(2-ethylhexyl)] bis (dithiophosphate)	<1	Eye Dam. 1, H318 Aquatic Chronic 2, H411	
CAS: 68649-42-3 EC: 272-028-3	phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	<1	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411	
CAS: 69011-36-5 EC: 500-241-6 Registration number: 01-2119976362-32	isotridecanol, ethoxylated	<1	Acute Tox. 4, H302 Eye Dam. 1, H318	
CAS: 85117-47-1 EC: 285-597-8 Registration number: 01-2119985162-35	benzene, mono-C10-14-alkyl derivs., fractionation bottoms, intermediate cut, sulfonated, sodium salts	<1	Skin Sens. 1, H317	3
EC: 931-384-6 Registration number: 01-2119493620-38	reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 branched	<1	Acute Tox. 4, H302 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 2, H411	3
CAS: 112-90-3 EC: 204-015-5	(z)-octadec-9-enylamine	<1	Acute Tox. 4, H302 Asp. Tox. 1, H304 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 1, H400, M=10 Aquatic Chronic 1, H410, M=10	

### Notes

- 1 Note L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.
- 2 Note P: The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7). When the substance is not classified as a carcinogen at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 (Table 3.1) or the S-phrases (2-)23-24-62 (Table 3.2) shall apply. This note applies only to certain complex oil-derived substances in Part 3.
- 3 Substance of unknown or variable composition, complex reaction products or biological materials - UVCB.
- 4 Fulfilled Note L
- 5 Fulfilled Note P

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

If any health problems are manifested or if in doubt, inform a doctor and show him information from this Safety Data Sheet.

#### Inhalation

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.

#### Skin contact

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.

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**Eye contact**

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

**Ingestion**

DO NOT INDUCE VOMITING. Provide medical treatment.

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

May be fatal if swallowed and enters airways.

**Skin contact**

Irritates the skin. May cause an allergic skin reaction.

**Eye contact**

Causes serious eye irritation.

**Ingestion**

May be fatal if swallowed and enters airways.

**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**

foam, carbon dioxide, multi-purpose dry powder, water mist

**Unsuitable extinguishing media**

water - full jet

**5.2. Special hazards arising from the substance or mixture**

Fire produces heavy, black smoke, with potential development of carbon monoxide and dioxide and other toxic gases (e.g. hydrocarbons). Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

**5.3. Advice for firefighters**

Use a self-contained breathing apparatus and full-body protective clothing. Closed containers with the product near the fire should be cooled with water. 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**

Provide sufficient ventilation. Wear personal protective equipment. Follow the instructions in Sections 7 and 8.

**6.2. Environmental precautions**

Prevent contamination of the soil and entering surface or ground water. Do not allow to enter drains.

**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 Section 13. Collected material should be disposed of in accordance with locally valid regulations. Upon an escape of large quantities of the product, inform the Fire Department and the Environmental Department of the Municipal Authority with extended scope of competencies. After removal of the product, wash the contaminated site with plenty of water or another suitable cleaning material.

**6.4. Reference to other sections**

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 flammable or explosive concentrations. The product should be used only in areas where it is not in contact with open fire and other ignition sources. Don't smoke. 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. Keep away from sources of ignition and heat. Store along with food, beverages and animal feed.

Packaging type iron, steel

Storage temperature <40 °C

#### 7.3. Specific end use(s)

not available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

none

#### DNEL

reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 branched

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Dermal	12.5 mg/kg	Local chronic effects	
Consumers	Dermal	6.25 mg/kg	Local chronic effects	
Workers	Inhalation	8.56 mg/m <sup>3</sup>	Local chronic effects	
Consumers	Inhalation	2.2 mg/m <sup>3</sup>	Local chronic effects	
Consumers	Oral	0.25 mg/kg/24hour	Local chronic effects	

#### PNEC

reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14 branched

Route of exposure	Value	Determining method
Freshwater environment	0.0012 mg/l	
Seawater	0.00012 mg/l	
Freshwater sediment	3.13 mg/kg	
Sea sediments	0.313 mg/kg	
Soil (agricultural)	2.54 mg/kg	

#### 8.2. Exposure controls

Follow usual measures 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.

##### Eye/face protection

Protective goggles or face shield.

##### Skin protection

Hand protection: Protective gloves resistant against the product, suitable material: nitrile rubber, neoprene. Observe recommendations of the particular manufacturer of the gloves in the choice of their appropriate thickness, material and permeability. Other protection: Protective clothing. Contaminated skin should be washed thoroughly.

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**Respiratory protection**

Mask with a filter type A against organic vapours or a self-contained breathing apparatus as appropriate if exposure limit values of toxic 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	
Physical state	liquid at 20°C
color	light brown
Odour	characteristic, after petrol
Odour threshold	data not available
pH	data not available
Melting point/freezing point	<-12 °C
Initial boiling point and boiling range	data not available
Flash point	<0 °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	
bottom	1.5 %
upper	9 %
Vapour pressure	data not available
Vapour density	data not available
Relative density	data not available
Solubility(ies)	
solubility in water	insoluble
solubility in fats	data not available
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
Viscosity	data not available
Explosive properties	data not available
Oxidising properties	data not available

**9.2. Other information**

Density	0.7-0.8 g/cm <sup>3</sup>
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**

The product is stable under normal conditions. When exposed to high temperatures there is a risk of explosion. Fumes can combine with air to form an explosive mixture.

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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**

Keep away from strong acids, strong oxidants, combustible materials.

**10.6. Hazardous decomposition products**

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

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

No toxicological data is available for the mixture.

**Acute toxicity**

May be fatal if swallowed and enters airways.

dec-1-ene, homopolymer, hydrogenated

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex
Oral	LD <sub>50</sub>	OECD 423	>5000 mg/kg		Rat	F/M
Inhalation	LC <sub>50</sub>	OECD 403	>5.2 mg/l	4 hour	Rat	F/M

naphthenic acids, zinc salts

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex
Oral	LD <sub>50</sub>		4920 mg/kg		Rat	

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye irritation.

**Respiratory or skin sensitisation**

May cause an allergic skin reaction.

**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.

**Aspiration hazard**

May be fatal if swallowed and enters airways.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

##### Acute toxicity

Harmful to aquatic life with long lasting effects.

phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts

Parameter	Method	Value	Time of exposure	Species	Environment	Determining method
LC <sub>50</sub>		1-5 mg/l	96 hour	Fishes (Pimephales promelas)		Static system
LC <sub>50</sub>		10-35 mg/l	96 hour	Fishes (Pimephales promelas)		Static system

polysulfides, di-tert-Bu

Parameter	Method	Value	Time of exposure	Species	Environment	Determining method
LC <sub>50</sub>	OECD 203	0.088 mg/l	96 hour	Fishes		
EC <sub>50</sub>	OECD 202	0.24 mg/l	48 hour	Daphnia (Daphnia magna)		
EC <sub>50</sub>	OECD 201	2.45 mg/l	72 hour	Other aquatic organisms		

#### 12.2. Persistence and degradability

##### Biodegradability

polysulfides, di-tert-Bu

Parameter	Value	Time of exposure	Environment	Result
	13 %			

not available

#### 12.3. Bioaccumulative potential

not available

#### 12.4. Mobility in soil

polysulfides, di-tert-Bu

Parameter	Method	Value	Environment	Surrounding temperature
Log Koc	OECD 121	8.5		

not available

#### 12.5. Results of PBT and vPvB assessment

The product is not classified as PBT or vPvB.

#### 12.6. Other adverse effects

not available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

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 an authorised person for waste removal (specialized company) authorised 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. Hazard of environmental contamination; remove waste in accordance with local and/or national regulations.



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**Legislation of waste**

Council Directive 75/442/EEC on waste, as amended. Decree No. 383/2001 Coll., on details regarding waste handling as amended. Decree No. 93/2016 Coll., (waste catalogue) as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

**Waste type code**

13 02 05 mineral-based non-chlorinated engine, gear and lubricating oils  
14 06 03 other solvents and solvent mixtures

**Packaging waste type code**

15 01 10 packaging containing residues of or contaminated by dangerous substances  
15 01 11 metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

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

UN 1950

**14.2. UN proper shipping name**

AEROSOLS

**14.3. Transport hazard class(es)**

2 Gases

**14.4. Packing group**

not available

**14.5. Environmental hazards**

not available

**14.6. Special precautions for user**

Reference in Sections 4 to 8.

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

not available

**Additional information**

Hazard identification No.	 (Kemler Code)
UN number	
Classification code	5F
Safety signs	2.1

**Marine transport - IMDG**

EmS (emergency plan)	F-D, S-U
MFAG	620

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**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. The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended (the Chemical Act). Decree No. 80/2014 Coll., amending the Decree No. 194/2001 Coll., laying down technical requirements for aerosol sprays as amended. Decree No. 432/2003 Coll., laying down conditions for assigning categories to individual jobs, limit values of indices from biological exposure tests, conditions for the sampling of biological materials for biological exposure and the particulars of the reports on work with asbestos and biological agents as amended.

**15.2. Chemical safety assessment**

not available

**SECTION 16: Other information****A list of standard risk phrases used in the safety data sheet**

H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
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.
H413	May cause long lasting harmful effects to aquatic life.

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

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P301+P310	IF SWALLOWED: Immediately call a.
P331	Do NOT induce vomiting.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding.
P501	Dispose of contents/container to by 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 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

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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
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC <sub>50</sub>	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 <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
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log K <sub>ow</sub>	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
Aerosol	Flammable aerosol
Aquatic Acute	Hazardous to the aquatic environment
Aquatic Chronic	Hazardous to the aquatic environment
Asp. Tox.	Aspiration hazard
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid
Skin Corr.	Skin corrosion
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single 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

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**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. The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended. First aid principles after the exposure to the chemicals (Zásady pro poskytování první pomoci při expozici chemickým látkám, doc. MUDr. Daniela Pelclová, CSc., MUDr. Alexandr Fuchs, CSc., MUDr. Miroslava Hornychová, CSc., MUDr. Zdeňka Trávníčková, CSc., Jiřina Fridrichovská, prom. chem.). Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

**The changes (which information has been added, deleted or modified)**

The version 2.0 replaces the SDS version from 18.10.2016. Changes were made in sections 2, 13, 15 and 16.

**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.