SAFETY DATA SHEET

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

RUBBER PROTECTION

Creation date	16th April 2020		
Revision date		Version	2.1

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

1.1. Product identifier — RUBBER PROTECTION

Substance / mixture — mixture

Number — R 50110

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

Mixture's intended use — Rubber protection spray.

Mixture uses advised against — For professional use only.

1.3. Details of the supplier of the safety data sheet

Supplier

Name or trade name	RETECH, s.r.o.
Address	Vackova 1541/4, Praha 5 - Stodůlky, 155 00 Czech Republic
Identification number (CRN)	25018205
VAT Reg No	CZ25018205
Phone	+420327596428
E-mail	info@retech.cz
Web address	www.retech.com

Competent person responsible for the safety data sheet

Name	RETECH, s.r.o.
E-mail	info@retech.cz

1.4. Emergency telephone number

RETECH, Suchdol 212, 285 02 Suchdol u Kutné Hory, Czech Republic; Telephone number: +420 327 596 128 (7.30-16.00 hour)
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. Classification of the substance or mixture

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
STOT SE 3, H336
Aquatic Chronic 2, H411

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 cause drowsiness or dizziness. Causes skin irritation. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram

Signal word

Danger

Hazardous substances

Naphtha (petroleum), hydrotreated light
Naphtha (petroleum), hydrotreated light
butanone
ethyl acetate

Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic 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.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe vapours/spray.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container to in accordance with national regulations.

Supplemental information

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. Buildup of explosive mixtures possible without sufficient ventilation.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and 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.
CAS: 115-10-6 EC: 204-065-8	dimethyl ether	25-<50	Flam. Gas 1, H220 Press. Gas, H280	1
CAS: 64742-49-0 EC: 921-024-6 Registration number: 01-2119475514-35	Naphtha (petroleum), hydrotreated light	10-<25	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411	
CAS: 64742-49-0 EC: 927-510-4 Registration number: 01-2119475515-33	Naphtha (petroleum), hydrotreated light	10-<25	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411	
CAS: 78-93-3 EC: 201-159-0	butanone	5-<10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH 066	1
CAS: 141-78-6 EC: 205-500-4 Registration number: 01-2119475103-46	ethyl acetate	1-<5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH 066	1

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
CAS: 64742-49-0 EC: 920-750-0 Registration number: 01-2119473851-33-0001	Naphtha (petroleum), hydrotreated light	1-<5	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411	
CAS: 110-82-7 EC: 203-806-2	cyclohexane	1-<5	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	1
CAS: 64742-95-6 EC: 918-668-5 Registration number: 01-2119455851-35	Solvent naphtha (petroleum), light arom.	1-<5	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335, H336 Aquatic Chronic 2, H411	

Notes

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

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.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Provide medical treatment. If unconscious, place in recovery position and get medical attention immediately.

If on skin

Immediately wash with water and soap and rinse thoroughly. In the event of issues, find medical advice. In the event of issues, find medical advice.

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. In the event of issues, find medical advice.

If swallowed

DO NOT INDUCE VOMITING! Provide medical treatment.

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

If inhaled

May cause drowsiness or dizziness.

If on skin

Causes skin irritation.

If in eyes

not available

If swallowed

not available

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

not available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide, sand, powder.

Unsuitable extinguishing media

Water. Water - full jet.

5.2. Special hazards arising from the substance or mixture

not available

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide sufficient ventilation. Use personal protective equipment for work. Keep unprotected persons away. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water. Do not allow to enter drains. Inform respective authorities in case of seepage into water course or sewage system.

6.3. Methods and material for containment and cleaning up

Provide sufficient ventilation. 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. Do not flush with water or aqueous cleansing agents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Use only outdoors or in a well-ventilated area. Take precautionary measures against static discharge. Do not spray on an open flame or other ignition source. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. No smoking. Take precautionary measures against static discharge. Pressurised container: May burst if heated. Keep away from sources of heating, ignition and direct sunlight. Do not pierce or burn, even after use.

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. Protect from sunlight. Do not expose to temperatures exceeding 50 °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

Substance name (component)	Type	Time of exposure	Value	Note	Source
dimethyl ether (CAS: 115-10-6)	OEL	8 hours	1920 mg/m³		Commission Directive 2000/39/EC

European Union

Substance name (component)	Type	Time of exposure	Value	Note	Source
dimethyl ether (CAS: 115-10-6)	OEL	8 hours	1000 ppm		Commission Directive 2000/39/EC
butanone (CAS: 78-93-3)	OEL	8 hours	600 mg/m³		Commission Directive 2000/39/EC
	OEL	8 hours	200 ppm		
	OEL	15 minutes	900 mg/m³		
	OEL	15 minutes	300 ppm		
ethyl acetate (CAS: 141-78-6)	OEL	8 hours	734 mg/m³		Commission Directive (EU) 2017/164
	OEL	8 hours	200 ppm		
	OEL	15 minutes	1468 mg/m³		
	OEL	15 minutes	400 ppm		
cyclohexane (CAS: 110-82-7)	OEL	8 hours	700 mg/m³		Commission Directive 2006/15/EC

European Union

Substance name (component)	Type	Time of exposure	Value	Note	Source
cyclohexane (CAS: 110-82-7)	OEL	8 hours	200 ppm		Commission Directive 2006/15/EC

United Kingdom of Great Britain and Northern Ireland

Substance name (component)	Type	Time of exposure	Value	Note	Source
dimethyl ether (CAS: 115-10-6)	WEL	8 hours	766 mg/m³		GBR
	WEL	1 hour	958 mg/m³		
	WEL	8 hours	400 ppm		
	WEL	1 hour	500 ppm		
butanone (CAS: 78-93-3)	WEL	8 hours	600 mg/m³	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	GBR
	WEL	1 hour	899 mg/m³	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	8 hours	200 ppm	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	1 hour	300 ppm	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	
ethyl acetate (CAS: 141-78-6)	WEL	8 hours	200 ppm		GBR
	WEL	1 hour	400 ppm		
cyclohexane (CAS: 110-82-7)	WEL	8 hours	350 mg/m³		GBR
	WEL	1 hour	1050 mg/m³		
	WEL	8 hours	100 ppm		
	WEL	1 hour	300 ppm		

DNEL

Naphtha (petroleum), hydrotreated light

Workers / consumers	Route of exposure	Value	Effect	Determining method
Consumers	Oral	699 mg/kg bw/day	Systemic chronic effects	
Consumers	Dermal	699 mg/kg bw/day	Systemic chronic effects	
Workers	Dermal	773 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	608 mg/m³	Systemic chronic effects	
Workers	Inhalation	2035 mg/m³	Systemic chronic effects	
Consumers	Oral	149 mg/kg bw/day	Systemic chronic effects	
Consumers	Dermal	149 mg/kg bw/day	Systemic chronic effects	
Workers	Dermal	300 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	477 mg/m³	Systemic chronic effects	
Workers	Inhalation	2085 mg/m³	Systemic chronic effects	
Consumers	Oral	699 mg/kg bw/day	Systemic chronic effects	
Consumers	Dermal	699 mg/kg bw/day	Systemic chronic effects	
Workers	Dermal	773 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	608 mg/m³	Systemic chronic effects	
Workers	Inhalation	2035 mg/m³	Systemic chronic effects	

Solvent naphtha (petroleum), light arom.

Workers / consumers	Route of exposure	Value	Effect	Determining method
Consumers	Oral	11 mg/kg bw/day	Systemic chronic effects	
Workers	Dermal	25 mg/kg bw/day	Systemic chronic effects	
Consumers	Dermal	11 mg/kg bw/day	Systemic chronic effects	
Workers	Inhalation	150 mg/m³	Systemic chronic effects	
Consumers	Inhalation	32 mg/m³	Systemic chronic effects	

8.2. Exposure controls

Do not store together with food, drink and animal feed. Remove contaminated clothes. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest. Do not inhale gases and vapours. Do not inhale aerosols. Prevent contact with skin and eyes.

Eye/face protection

Tightly sealed goggles.

Skin protection

Hand protection: Protective gloves resistant to the product. Material of gloves: Nitrile rubber, NBR. Recommended thickness of the material: ≥ 0.12 mm. Penetration time of glove material: > 480 min. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear.

Respiratory protection
Filter AX.

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	aerosol
Physical state	liquid at 20°C
color	black
Odour	characteristic
Odour threshold	data not available
pH	data not available
Melting point/freezing point	data not available
Initial boiling point and boiling range	-25 °C
Flash point	<-20 °C (DIN 53213)
Evaporation rate	data not available
Flammability (solid, gas)	Extremely flammable aerosol.
Upper/lower flammability or explosive limits	
flammability limits	data not available
explosive limits	
bottom	0.6 %
upper	7.0 %
Vapour pressure	60 hPa at 20 °C
Vapour density	data not available
Relative density	data not available
Solubility(ies)	
solubility in water	almost 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	The product does not have explosive properties but can be explosive when blended with air.
Oxidising properties	data not available

data not available

9.2. Other information

Density	0.838 g/cm^3 at 20 °C (DIN 51757)
ignition temperature	>200 °C
content of organic solvents (VOC)	75.8 %
solid content (dry matter)	24.1 % volume
Max. VOC content in the product in its ready to use condition	691.1 g/l

Product is not selfigniting.

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
not available

10.5. Incompatible materials
not available

10.6. Hazardous decomposition products
In the event of fire, carbon monoxide, carbon dioxide may arise.

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.

butanone

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	3300 mg/kg		Rat	
Dermal	LD_{50}	5000 mg/kg		Rabbit	

cyclohexane

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	12705 mg/kg		Rat	
Inhalation	LC_{50}	89600 mg/l		Rabbit	

dimethyl ether

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Inhalation	LC_{50}	164 mg/l	4 hour	Rat	

ethyl acetate

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	4935 mg/kg		Rabbit	
Inhalation	LC_{50}	1600 mg/m³	4 hour	Rat	

Naphtha (petroleum), hydrotreated light

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	>5840 mg/kg		Rat	
Dermal	LD_{50}	>2920 mg/kg		Rabbit	
Inhalation	LC_{50}	>25.2 mg/l	4 hour	Rat	
Oral	LD_{50}	>5840 mg/kg		Rat	
Dermal	LD_{50}	>2920 mg/kg		Rabbit	
Inhalation	LC_{50}	>23.3 mg/l	4 hour	Rat	
Oral	LD_{50}	>5000 mg/kg		Rat	
Dermal	LD_{50}	>2800 mg/kg		Rabbit	
Inhalation	LC_{50}	>23.3 mg/l	4 hour	Rat	

Solvent naphtha (petroleum), light arom.

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	3592 mg/kg		Rat	
Dermal	LD_{50}	>3160 mg/kg		Rabbit	
Inhalation	LC_{50}	>6193 mg/l	4 hour	Rat	

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/irritation
Based on available data the classification criteria are not met.

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
May cause drowsiness or dizziness.

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.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity
Toxic to aquatic life with long lasting effects.

Naphtha (petroleum), hydrotreated light

Parameter	Value	Time of exposure	Species	Environment
EL 50	30-100 mg/l	72 hour	Algae (Selenastrum capricornutum)	
EL 50	3 mg/l	48 hour	Invertebrates (Daphnia magna)	
LL 50	11.4 mg/l	96 hour	Fishes (Oncorhynchus mykiss)	
EC_{50}	10 mg/l	48 hour	Algae (Phaeophyta)	
EL 50	10-30 mg/l	72 hour	Algae (Selenastrum capricornutum)	

Naphtha (petroleum), hydrotreated light

Parameter	Value	Time of exposure	Species	Environment
EL 50	3 mg/l	48 hour	Invertebrates (Daphnia magna)	
LL 50	>13.4 mg/l	96 hour	Fishes (Oncorhynchus mykiss)	
EL 50	10-30 mg/l	72 hour	Algae (Selenastrum capricornutum)	
EL 50	3 mg/l	48 hour	Invertebrates (Daphnia magna)	
LL 50	>13.4 mg/l	96 hour	Fishes (Oncorhynchus mykiss)	

Solvent naphtha (petroleum), light arom.

Parameter	Value	Time of exposure	Species	Environment
LL 50	9.2 mg/l	96 hour	Fishes (Oncorhynchus mykiss)	
EC_{50}	7.4 mg/l	48 hour	Daphnia (Daphnia magna)	
EL	3.2 mg/l	48 hour	Invertebrates (Daphnia magna)	
EL	2.9 mg/l	72 hour	Algae (Selenastrum capricornutum)	

12.2. Persistence and degradability

Data not available.

12.3. Bioaccumulative potential

Not available.

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. Other adverse effects

Additional ecological information:
General notes: Water hazard class 1 (german Regulation, self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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 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.

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

08 01 11 waste paint and varnish containing organic solvents or other hazardous substances *

Packaging waste type code

15 01 11 metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers *

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

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

Product contains environmentally hazardous substances: cyclohexane

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

Additional information

Hazard identification No.	(Kemler Code)
UN number	1950
Classification code	5F
Safety signs	2.1+hazardous for the environment

Road transport - ADR

Limited quantities	1 L
Excepted quantities	E0
Transport category	2
Tunnel restriction code	(D)

Marine transport - IMDG

Hazard initiator	Naphtha (petroleum), hydrotreated light, heptanes
EmS (emergency plan)	F-D, S-U
Marine Pollutant	Yes

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.

15.2. Chemical safety assessment

not available

SECTION 16: Other information

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

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
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.

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.
P211	Do not spray on an open flame or other ignition source.
P260	Do not breathe vapours/spray.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container to in accordance with national regulations.

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

EUH 066	Repeated exposure may cause skin dryness or cracking.

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
EC_{50}	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_{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 Kow	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

Aerosol	Aerosol
Aquatic Acute	Hazardous to the aquatic environment
Aquatic Chronic	Hazardous to the aquatic environment
Asp. Tox.	Aspiration hazard
Eye Irrit.	Eye irritation
Flam. Gas	Flammable gas
Flam. Liq.	Flammable liquid
Press. Gas	Gases under pressure
Skin Irrit.	Skin irritation
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

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.

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

The version 2.1 replaces the SDS version from 17.02.2017. 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.