

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

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

- 1.1. Product identifier**
Substance / mixture PROTECTON DE-ICER mixture
UFI 2AJP-CVMD-U00D-C89J
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
Mixture's intended use
De-frosts frozen windows and prevents re.freezing.
Main intended use
PC-TEC-2 Antifreeze and de-icing products
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**
Supplier
Name or trade name FILSON s.r.o.
Address Slévačská 902, Praha 9, 19800
Czech Republic
Identification number (CRN) 47549947
Phone +420 267710620
E-mail msds@filson.cz
Web address www.filson.cz
Competent person responsible for the safety data sheet
Name FILSON s.r.o.
E-mail msds@filson.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.

Flam. Liq. 3, H226

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

Most serious adverse physico-chemical effects

Flammable liquid and vapour.

- 2.2. Label elements**
Hazard pictogram

**Signal word**

Warning

Hazard statements

H226 Flammable liquid and vapour.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P501 Dispose of contents/container to the collection point for hazardous or special waste.

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

Supplemental information

<5 % anionic surfactants

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

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
Index: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6 Registration number: 01-2119457610-43-0031	ethanol	<45	Flam. Liq. 2, H225 Eye Irrit. 2, H319	
Index: 603-027-00-1 CAS: 107-21-1 EC: 203-473-3 Registration number: 01-2119456816-28-0004	ethanediol	<10	Acute Tox. 4, H302	1
Index: 606-002-00-3 CAS: 78-93-3 EC: 201-159-0 Registration number: 01-2119457290-43-xxxx	butanone	<1	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	1
Index: 603-117-00-0 CAS: 67-63-0 EC: 200-661-7	isopropanol	<1	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	
CAS: 68891-38-3 EC: 500-234-8 Registration number: 01-2119488639-16	alcohols, (C12-14), ethoxylated, monoethers with sulfuric acid, sodium salts	<0,2	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412 Specific concentration limit: Eye Irrit. 2, H319: 5 % ≤ C < 10 % Eye Dam. 1, H318: C ≥ 10 %	

Notes

1 A substance for which exposure limits are set.

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.

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

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

Take off contaminated clothing. 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. Rinse skin with water/shower.

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.

If swallowed

DO NOT INDUCE VOMITING - even the induced vomiting can cause complications as in case of detergents and other foaming substances.

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

Not expected.

If on skin

Not expected.

If in eyes

Not expected.

If swallowed

Not expected.

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. 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. Flammable liquid and vapour. Remove all ignition sources. Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8.

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.

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of gases and vapours in flammable or explosive concentrations and 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. Use non-sparking tools. Use of antistatic clothes and footwear is recommended. No smoking. Use only non-sparking tools. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take action to prevent static discharges.

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 container tightly closed. Keep cool.

Content	Packaging type	Material of package
500 ml	atomizer	

Storage class 3 - Flammable liquids

Storage temperature min 5 °C, max 25 °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.

European Union

Commission Directive 2000/39/EC

Substance name (component)	Type	Value	Note
ethanediol (CAS: 107-21-1)	OEL 8 hours	52 mg/m ³	Skin
	OEL 8 hours	20 ppm	
	OEL 15 minutes	104 mg/m ³	
	OEL 15 minutes	40 ppm	
butanone (CAS: 78-93-3)	OEL 8 hours	600 mg/m ³	
	OEL 8 hours	200 ppm	
	OEL 15 minutes	900 mg/m ³	
	OEL 15 minutes	300 ppm	

DNEL

alcohols, (C12-14), ethoxylated, monoethers with sulfuric acid, sodium salts

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Dermal	2750 mg/kg bw/day	Chronic effects systemic		
Workers	Inhalation	175 mg/m ³	Chronic effects systemic		
Consumers	Oral	15 mg/kg bw/day	Chronic effects systemic		
Consumers	Inhalation	52 mg/m ³	Chronic effects systemic		
Consumers	Dermal	1650 mg/kg bw/day	Chronic effects systemic		

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

ethanediol

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	35 mg/m ³	Chronic effects local		
Workers	Dermal	106 mg/kg bw/day	Chronic effects systemic		
Consumers	Inhalation	7 mg/m ³	Chronic effects local		
Consumers	Dermal	53 mg/kg bw/day	Chronic effects systemic		

ethanol

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	1900 mg/m ³	Acute effects local		
Workers	Dermal	343 mg/kg	Chronic effects systemic		
Workers	Inhalation	950 mg/m ³	Chronic effects systemic		
Consumers	Inhalation	950 mg/m ³	Acute effects local		
Consumers	Dermal	206 mg/kg bw	Chronic effects systemic		
Consumers	Inhalation	114 mg/m ³	Chronic effects systemic		
Consumers	Oral	87 mg/kg bw	Chronic effects systemic		

isopropanol

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	500 mg/m ³	Chronic effects systemic		
Workers	Dermal	888 mg/kg bw	Chronic effects systemic		
Consumers	Inhalation	89 mg/kg	Chronic effects systemic		
Consumers	Dermal	319 mg/kg bw	Chronic effects systemic		
Consumers	Oral	26 mg/kg bw	Chronic effects systemic		

PNEC

alcohols, (C12-14), ethoxylated, monoethers with sulfuric acid, sodium salts

Route of exposure	Value	Value determination	Source
Freshwater environment	0.24 mg/l		
Marine water	0.024 mg/l		
Soil (agricultural)	7.5 mg/kg		
Microorganisms in sewage treatment	10000 mg/l		
Freshwater sediment	0.917 mg/kg of food		
Sea sediments	0.092 mg/kg of food		

ethanediol

Route of exposure	Value	Value determination	Source
Freshwater environment	10 mg/l		
Marine water	1 mg/l		
Water (intermittent release)	10 mg/l		
Freshwater sediment	37 mg/kg		
Soil (agricultural)	1.53 mg/kg of dry substance of soil		

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

ethanediol

Route of exposure	Value	Value determination	Source
Microorganisms in sewage treatment	199.5 mg/l		

ethanol

Route of exposure	Value	Value determination	Source
Freshwater environment	0.96 mg/l		
Marine water	0.79 mg/l		
Water (intermittent release)	2.75 mg/l		
Freshwater sediment	3.6 mg/l		
Sea sediments	2.9 mg/l		
Soil (agricultural)	0.63 mg/kg of dry substance of soil		
Microorganisms in sewage treatment	580 mg/l		
Food chain	720 mg/kg		

isopropanol

Route of exposure	Value	Value determination	Source
Microorganisms in sewage treatment	2251 mg/l		
Freshwater sediment	552 mg/kg		
Sea sediments	552 mg/kg		
Soil (agricultural)	28 mg/kg		
Oral	160 mg/kg		
Freshwater environment	140.9 mg/l		
Marine water	140.9 mg/l		
Water (intermittent release)	140.9 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

It is not needed.

Skin protection

Hand protection: Protective gloves resistant to the product. 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	blue
Odour	according to fragrance
Melting point/freezing point	-30 °C
Boiling point or initial boiling point and boiling range	>78 °C
Flammability	data not available
Lower and upper explosion limit	data not available
Flash point	>28 °C

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	6-9 (undiluted at 20 °C)
Kinematic viscosity	data not available
Solubility in water	soluble
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	data not available
Density and/or relative density	
Density	0,945 - 0,955 g/cm ³ at 20 °C
Relative vapour density	data not available
Particle characteristics	data not available

9.2. Other information

Appearance	liquid
------------	--------

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.

10.5. Incompatible materials

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 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

No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

alcohols, (C12-14), ethoxylated, monoethers with sulfuric acid, sodium salts

Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD50	>2000 mg/kg		Rat	
Dermal	LD50	>2000 mg/kg		Rat	

butanone

Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral		3460 mg/kg bw		Rat (<i>Rattus norvegicus</i>)	
Dermal	LD50	>10 ml/kg bw		Rabbit	

ethanediol

Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD50	4700 mg/kg		Rat (<i>Rattus norvegicus</i>)	
Oral	LD50	5500 mg/kg		Mouse	
Dermal	LD50	9530 mg/kg		Rat (<i>Rattus norvegicus</i>)	
Oral	LDL0	100 ml		Human	

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

ethanediol

Route of exposure	Parameter	Value	Exposure time	Species	Sex
Inhalation	LC50	10876 mg/m ³		Rat (Rattus norvegicus)	

ethanol

Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD50	10470 mg/kg bw			
Dermal	LD50	15800 mg/kg bw			
Inhalation	LC50	30000 mg/m ³			

isopropanol

Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD50	>2000 mg/kg		Rat	
Dermal	LD50	>2000 mg/kg		Rabbit	
Inhalation (vapor)	LC50	>5 mg/kg	4 hours	Rat	
Oral	LD50	>2000 mg/kg		Rat	
Inhalation (vapor)	LC50	>10000 ppm	6 hours	Rat	

Skin corrosion/irritation

Based on available data the classification criteria are not met.

alcohols, (C12-14), ethoxylated, monoethers with sulfuric acid, sodium salts

Route of exposure	Result	Exposure time	Species
	Irritating		Human

Serious eye damage/irritation

Based on available data the classification criteria are not met.

alcohols, (C12-14), ethoxylated, monoethers with sulfuric acid, sodium salts

Route of exposure	Result	Exposure time	Species
	Highly irritating		Human

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.

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.

11.2. Information on other hazards

not available

SECTION 12: Ecological information

12.1. Toxicity

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

Acute toxicity

alcohols, (C12-14), ethoxylated, monoethers with sulfuric acid, sodium salts

Parameter	Value	Exposure time	Species	Environment
CL50	7.1 mg/l	96 hours	Fish	
CE50	7.2 mg/l	48 hours	Crustaceans (Daphnia magna)	
NOEC	0.27 mg/l	48 hours	Crustaceans (Daphnia magna)	
CE50	27 mg/l	72 hours	Algae	

butanone

Parameter	Value	Exposure time	Species	Environment
LC50	2993 mg/kg	96 hours	Fish (Pimephales promelas)	
EC50	308 mg/l	48 hours	Invertebrates (Daphnia magna)	
EC50	1972 mg/l	72 hours	Algae (Pseudokirchneriella subcapitata)	

ethanediol

Parameter	Value	Exposure time	Species	Environment
	18500 mg/l	96 hours	Fish (Salmo gairdneri)	
LD50	41000 mg/l	96 hours	Fish (Oncorhynchus mykiss)	
LD50	18500 mg/l	96 hours	Fish (Lepomis macrochirus)	
EC50	46300 mg/l	48 hours	Invertebrates (Daphnia magna)	
EC50	>100 mg/l	72 hours	Algae	

ethanol

Parameter	Value	Exposure time	Species	Environment
LC50	11200 mg/l of air	24 hours	Fish (Oncorhynchus mykiss)	
EC50	5012 mg/l	48 hours	Invertebrates (Ceriodaphnia dubia)	
EC50	857 mg/l	48 hours	Invertebrates (Artemia salina)	
EC50	275 mg/l	72 hours	Algae (Chlorella vulgaris)	

isopropanol

Parameter	Value	Exposure time	Species	Environment
LC50	>100 mg/l	96 hours	Fish	
EC50	>100 mg/l	48 hours	Daphnia	
IC50	>100 mg/l	72 hours	Algae	
LD50	>100 mg/l	48 hours	Fish (Leuciscus idus melanotus)	
LD50	>100 mg/l	48 hours	Fish (Pimephales promelas)	
EC50	>100 mg/l	48 hours	Invertebrates (Daphnia magna)	
EC50	>100 mg/l	72 hours	Algae (Scenedesmus subspicatus)	

12.2. Persistence and degradability

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

Biodegradability

alcohols, (C12-14), ethoxylated, monoethers with sulfuric acid, sodium salts

Parameter	Method	Value	Exposure time	Environment	Result
		60 %	28 days		

ethanediol

Parameter	Method	Value	Exposure time	Environment	Result
	OECD 301A	>70 %	5 days		Easily biodegradable

isopropanol

Parameter	Method	Value	Exposure time	Environment	Result
		53 %	5 days		

The mixture is biodegradable.

12.3. Bioaccumulative potential

alcohols, (C12-14), ethoxylated, monoethers with sulfuric acid, sodium salts

Parameter	Value	Exposure time	Species	Environment	Temperature [°C]
Log Pow	-1.38				

isopropanol

Parameter	Value	Exposure time	Species	Environment	Temperature [°C]
Log Pow	<1.25				

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. 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 14 antifreeze fluids containing hazardous substances *

Packaging waste type code

15 01 02 plastic packaging

15 01 10 packaging containing residues of or contaminated by hazardous substances *

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

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

SECTION 14: Transport information

- 14.1. UN number or ID number**
UN 1170
- 14.2. UN proper shipping name**
ETHANOL SOLUTION
- 14.3. Transport hazard class(es)**
3 Flammable liquids
- 14.4. Packing group**
III - substances presenting low danger
- 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

Additional information

Hazard identification No.	30
UN number	1170
Classification code	F1
Safety signs	3



Road transport - ADR

Special provisions	144, 601
Limited quantities	5 L
Excepted quantities	E1
Packaging	
Packing instructions	P001, IBC03, LP01, R001
Mixed packing provisions	MP19
Portable tanks and bulk containers	
Guidelines	T2
Special provisions	TP1
ADR tank	
Tank code	LGBF
Vehicles for tank carriage	FL
Transport category	3
Tunnel restriction code	(D/E)
Special provision for packages	
operation	V12 S2

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

Railway transport - RID

Special provisions	144, 601
Excepted quantities	E1

Packaging

Packing instructions	P001, IBC03, LP01, R001
Mixed packing provisions	MP19

Portable tanks and bulk containers

Guidelines	T2
Special provisions	TP1

RID Tanks

Tank code	LGBF
Transport category	0

Special provision for

packages	W 12
----------	------

Air transport - ICAO/IATA

Packaging instructions for limited amount	Y344
Packaging instructions passenger	355
Cargo packaging instructions	366

Marine transport - IMDG

EmS (emergency plan)	F-E, S-D
MFAG	305

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 as amended. REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents, as amended.

National regulations (Germany)

WGK Water hazard class: WGK 1 - slightly hazardous to water

15.2. Chemical safety assessment

not available

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

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Guidelines for safe handling used in the safety data sheet

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P501	Dispose of contents/container to the collection point for hazardous or special waste.

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

EUH066	Repeated exposure may cause skin dryness or cracking.
--------	---

Other important information about human health protection

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

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
EC	Identification code for each substance listed in EINECS
EC50	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
IC50	Concentration causing 50% blockade
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
LC50	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD50	Lethal dose of a substance in which it can be expected death of 50% of the population
log Kow	Octanol-water partition coefficient
NOEC	No observed effect concentration
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
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Eye Dam.	Serious eye damage
Flam. Liq.	Flammable liquid
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



SAFETY DATA SHEET

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

PROTECTON DE-ICER

Creation date	14th August 2019	Version	2.0
Revision date	04th May 2023		

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 2.0 replaces the SDS version from 14 August 2019. Changes were made in sections 2, 12, 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.