

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

#### 1.1. Product identifier

Trade name : ProteClean Green+  
 UFI : FWD0-309T-4007-2PD7  
 Type of product : Detergent

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
 Use of the substance/mixture : Commercial cleaner  
 Cleaning agent

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

**Manufacturer/Supplier**  
 Fri-Jado B.V.  
 Blauwhekken 2  
 4751 XD Oud Gastel - Netherlands  
 T +31 (76) 50 85 400  
[info@frijado.com](mailto:info@frijado.com)

**Email competent person**  
[sds@kft.de](mailto:sds@kft.de)

#### 1.4. Emergency telephone number

Emergency number : 0049 621 845799732

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Corrosive to metals, Category 1 H290  
 Skin corrosion/irritation, Category 1, Sub-Category 1A H314  
 Serious eye damage/eye irritation, Category 1 H318  
 Full text of H-statements: see section 16

##### Adverse physicochemical, human health and environmental effects

May be corrosive to metals. Causes severe skin burns and eye damage.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

:



GHS05

Signal word (CLP)

: Danger

Contains

: Disodium carbonate, compound with hydrogen peroxide (2:3); sodium hydroxide

# ProteClean Green+

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Hazard statements (CLP)	: H290 - May be corrosive to metals. H314 - Causes severe skin burns and eye damage.
Precautionary statements (CLP)	: P280 - Wear protective gloves, protective clothing, eye protection, face protection. P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER, a doctor. P390 - Absorb spillage to prevent material damage.
EUH-statements	: EUH208 - Contains SUBTILISIN. May produce an allergic reaction.

### 2.3. Other hazards

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

Component	
sodium hydroxide (1310-73-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
sodium carbonate (497-19-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Disodium carbonate, compound with hydrogen peroxide (2:3) (15630-89-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Tetrasodium (1-hydroxyethylidene)bisphosphonate (3794-83-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
1-[2-[2-(3-methoxypropoxy)propoxy]ethoxy]butane (9038-95-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
subtilisin (9014-01-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
titanium dioxide (13463-67-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH)

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sodium hydroxide substance with national workplace exposure limit(s) (IE)	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6 (REACH-no) 01-2119457892-27-xxxx	≥ 50 – < 70	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318
sodium carbonate	(CAS-No.) 497-19-8 (EC-No.) 207-838-8 (EC Index-No.) 011-005-00-2 (REACH-no) 01-2119485498-19-xxxx	≥ 10 – < 20	Eye Irrit. 2, H319
Disodium carbonate, compound with hydrogen peroxide (2:3)	(CAS-No.) 15630-89-4 (EC-No.) 239-707-6 (REACH-no) 01-2119457268-30-xxxx	≥ 5 – < 10	Ox. Sol. 3, H272 Acute Tox. 4 (Oral), H302 (ATE=1034 mg/kg bodyweight) Eye Dam. 1, H318
Tetrasodium (1-hydroxyethylidene)bisphosphonate	(CAS-No.) 3794-83-0 (EC-No.) 223-267-7	≥ 2.5 – < 5	Acute Tox. 4 (Oral), H302 (ATE=940 mg/kg bodyweight) Eye Irrit. 2, H319
1-[2-[2-(3-methoxypropoxy)propoxy]ethoxy]butane	(CAS-No.) 9038-95-3	≥ 1 – < 2.5	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight)
subtilisin substance with national workplace exposure limit(s) (IE)	(CAS-No.) 9014-01-1 (EC-No.) 232-752-2 (EC Index-No.) 647-012-00-8 (REACH-no) 01-2119480434-38-xxxx	≥ 0.1 – < 0.25	Acute Tox. 4 (Oral), H302 (ATE=1800 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 1, H334 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
titanium dioxide substance with national workplace exposure limit(s) (IE)	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5	≥ 0.1 – < 0.25	Not classified

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits
sodium hydroxide	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6 (REACH-no) 01-2119457892-27-xxxx	( 0.5 ≤C < 2) Eye Irrit. 2, H319 ( 0.5 ≤C < 2) Skin Irrit. 2, H315 ( 2 ≤C < 5) Skin Corr. 1B, H314 ( 5 ≤C < 100) Skin Corr. 1A, H314
Disodium carbonate, compound with hydrogen peroxide (2:3)	(CAS-No.) 15630-89-4 (EC-No.) 239-707-6 (REACH-no) 01-2119457268-30-xxxx	( 7.5 ≤C < 25) Eye Irrit. 2, H319 ( 25 ≤C < 100) Eye Dam. 1, H318

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact	: Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Strong water jet.

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

Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon monoxide. Carbon dioxide. Nitrogen oxides. Sulphur oxides. Phosphorus oxides. Metal oxides. Silicon oxide.
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### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Protective equipment	: Wear personal protective equipment.
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust.

#### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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### 6.2. Environmental precautions

Avoid sub-soil penetration. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
Other information	: Disposal must be done according to official regulations.

### 6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe dust.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Store in original container or corrosive resistant and/or lined container. Keep cool. Keep container tightly closed. Protect from moisture. Store locked up.
Incompatible materials	: Metals.

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Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.  
Storage area : Base-resistant floor.  
Special rules on packaging : Store in original container or corrosive resistant and/or lined container.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

sodium hydroxide (1310-73-2)	
Ireland - Occupational Exposure Limits	
Local name	Sodium hydroxide
OEL STEL	2 mg/m <sup>3</sup>
Regulatory reference	Chemical Agents Code of Practice 2020

subtilisin (9014-01-1)	
Ireland - Occupational Exposure Limits	
Local name	Subtilisins (proteolytic enzymes as 100% pure crystalline enzyme)
OEL TWA [1]	0.00006 mg/m <sup>3</sup>
OEL STEL	0.00006 mg/m <sup>3</sup>
Notes (IE)	Sens. (In the workplace respiratory or dermal exposures to sensitising agents may occur. Sensitizers may evoke respiratory or dermal reactions, e.g. asthma, rhinitis and allergic contact dermatitis. The notation does not distinguish between respiratory or dermal sensitisation. Chemical agents that are sensitizers present special problems in the workplace. Should an employee become sensitised, subsequent exposure may cause intense responses, even at low exposure concentrations well below the OELV. Exposure should be eliminated or significantly reduced through control measures such as engineering and process controls and use of personal protective equipment (PPE))
Regulatory reference	Chemical Agents Code of Practice 2020

titanium dioxide (13463-67-7)	
Ireland - Occupational Exposure Limits	
Local name	Titanium dioxide
OEL TWA [1]	4 mg/m <sup>3</sup> respirable dust 10 mg/m <sup>3</sup> total inhalable dust
Regulatory reference	Chemical Agents Code of Practice 2020

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

sodium hydroxide (1310-73-2)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	1 mg/m <sup>3</sup>

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DNEL/DMEL (General population)	
Long-term - local effects, inhalation	1 mg/m <sup>3</sup>

sodium carbonate (497-19-8)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	10 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Acute - local effects, inhalation	10 mg/m <sup>3</sup>
Long-term - local effects, inhalation	10 mg/m <sup>3</sup>

Disodium carbonate, compound with hydrogen peroxide (2:3) (15630-89-4)	
DNEL/DMEL (Workers)	
Acute - local effects, dermal	12.8 mg/cm <sup>2</sup>
Long-term - local effects, dermal	12.8 mg/cm <sup>2</sup>
Long-term - local effects, inhalation	5 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Acute - local effects, dermal	6.4 mg/cm <sup>2</sup>
Long-term - local effects, dermal	6.4 mg/cm <sup>2</sup>
PNEC (Water)	
PNEC aqua (freshwater)	0.035 mg/l
PNEC aqua (marine water)	0.035 mg/l
PNEC aqua (intermittent, freshwater)	0.035 mg/l
PNEC (STP)	
PNEC sewage treatment plant	16.24 mg/l

Tetrasodium (1-hydroxyethylidene)bisphosphonate (3794-83-0)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	48 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	16.9 mg/m <sup>3</sup>
Long-term - local effects, inhalation	10 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	2.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	4.2 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	24 mg/kg bodyweight/day
Long-term - local effects, inhalation	10 mg/m <sup>3</sup>
PNEC (Water)	
PNEC aqua (freshwater)	0.096 mg/l
PNEC aqua (marine water)	0.01 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	193 mg/kg dwt
PNEC sediment (marine water)	19.3 mg/kg dwt
PNEC (Soil)	
PNEC soil	14 mg/kg dwt

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<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	5.3 mg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	58 mg/l

<b>subtilisin (9014-01-1)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - local effects, inhalation	60 ng/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Acute - systemic effects, oral	3.6 mg/kg bodyweight/day
Long-term - systemic effects, oral	1.8 mg/kg bodyweight/day
Long-term - local effects, inhalation	15 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	1.7 µg/L
PNEC aqua (marine water)	0.17 µg/L
PNEC aqua (intermittent, freshwater)	0.9 µg/L
<b>PNEC (Soil)</b>	
PNEC soil	0.568 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	65 mg/l

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

### 8.2.2. Personal protection equipment

#### 8.2.2.1. Eye and face protection

<b>Eye protection:</b>
Wear closed safety glasses. EN 166. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure

#### 8.2.2.2. Skin protection

<b>Skin and body protection:</b>
Wear suitable protective clothing. EN ISO 13688

<b>Hand protection:</b>
Chemically resistant protective gloves. For undissolved solid substances following materials may be suitable: Butyl rubber, Chloroprene rubber, Fluoroelastomer (FKM), Nitrile rubber. EN 374. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

#### 8.2.2.3. Respiratory protection

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### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Dust production: dust mask with filter type P2. EN 143. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

#### Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: white. Green.
Appearance	: cartridge. Powder.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Not available
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not applicable
Lower explosive limit (LEL)	: Not applicable
Upper explosive limit (UEL)	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: > 80 °C
pH	: Not available
pH solution	: 10.5 – 13 (Aqueous solution 1 %)
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Solubility	: Water: Material highly soluble in water
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not applicable
Vapour pressure at 50 °C	: Not available
Density	: 1080 – 1143 kg/m <sup>3</sup>
Relative density	: Not available
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1) : Not applicable



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VOC content : 0 %

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat. Protect from moisture.

#### 10.5. Incompatible materials

metals.

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

ProteClean Green+	
ATE CLP (oral)	> 5000 mg/kg bodyweight

Disodium carbonate, compound with hydrogen peroxide (2:3) (15630-89-4)	
LD50 oral rat	1034 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight

Tetrasodium (1-hydroxyethylidene)bisphosphonate (3794-83-0)	
LD50 oral rat	940 mg/kg bodyweight (OECD 401 method)
LD50 dermal rabbit	> 1650 mg/kg bodyweight (OECD 402 method)

1-[2-[2-(3-methoxypropoxy)propoxy]ethoxy]butane (9038-95-3)	
LD50 oral rat	300 – 2000 mg/kg bodyweight

subtilisin (9014-01-1)	
LD50 oral rat	1800 mg/kg bodyweight (OECD 201 method)

Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: May cause sensitisation of susceptible persons
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)

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Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Not relevant)

<b>ProteClean Green+</b>	
Viscosity, kinematic	Not applicable

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: Before neutralisation, the product may represent a danger to aquatic organisms.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

<b>subtilisin (9014-01-1)</b>	
LC50 - Fish [1]	8.2 mg/l (96h; Oncorhynchus mykiss (Rainbow trout); (OECD 203 method))
EC50 - Crustacea [1]	0.868 mg/l (48 h; Daphnia magna (Water flea); (OECD 202 method))
ErC50 algae	0.29 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))
NOEC chronic fish	0.042 mg/l (32 d; Pimephales promelas; (OECD 210 method))
NOEC chronic crustacea	0.019 mg/l (14 d; Daphnia magna (Water flea); (OECD 211 method))
NOEC chronic algae	0.041 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))

### 12.2. Persistence and degradability

<b>ProteClean Green+</b>	
Persistence and degradability	The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

<b>sodium hydroxide (1310-73-2)</b>	
Persistence and degradability	Not applicable for inorganic substances.

<b>sodium carbonate (497-19-8)</b>	
Persistence and degradability	Not applicable for inorganic substances.

<b>Disodium carbonate, compound with hydrogen peroxide (2:3) (15630-89-4)</b>	
Persistence and degradability	Not applicable for inorganic substances.

<b>Tetrasodium (1-hydroxyethylidene)bisphosphonate (3794-83-0)</b>	
Persistence and degradability	Not readily biodegradable.

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1-[2-[2-(3-methoxypropoxy)propoxy]ethoxy]butane (9038-95-3)	
Persistence and degradability	Readily biodegradable.
Biochemical oxygen demand (BOD)	> 60 % (28 d; (OECD 301F method))

subtilisin (9014-01-1)	
Persistence and degradability	Readily biodegradable.
Biodegradation	≈ 100 % (29 d; (OECD 301B method))

titanium dioxide (13463-67-7)	
Persistence and degradability	Not applicable for inorganic substances.

### 12.3. Bioaccumulative potential

ProteClean Green+	
Bioaccumulative potential	The product has not been tested.

sodium hydroxide (1310-73-2)	
Bioaccumulative potential	Not applicable for inorganic substances.

sodium carbonate (497-19-8)	
Bioaccumulative potential	Not applicable for inorganic substances.

Disodium carbonate, compound with hydrogen peroxide (2:3) (15630-89-4)	
Bioaccumulative potential	Not applicable for inorganic substances.

Tetrasodium (1-hydroxyethylidene)bisphosphonate (3794-83-0)	
Partition coefficient n-octanol/water (Log Pow)	-3 (23 °C; (OECD 107 method))
Bioaccumulative potential	Bioaccumulation unlikely.

1-[2-[2-(3-methoxypropoxy)propoxy]ethoxy]butane (9038-95-3)	
Bioaccumulative potential	Bioaccumulation unlikely.

subtilisin (9014-01-1)	
Partition coefficient n-octanol/water (Log Pow)	-3.1 (25 °C; (OECD 107 method))
Bioaccumulative potential	Bioaccumulation unlikely.

titanium dioxide (13463-67-7)	
Bioaccumulative potential	Not applicable for inorganic substances.

### 12.4. Mobility in soil

ProteClean Green+	
Ecology - soil	The product has not been tested.

sodium hydroxide (1310-73-2)	
Ecology - soil	Expected to be highly mobile in soil.

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<b>sodium carbonate (497-19-8)</b>	
Ecology - soil	Expected to be highly mobile in soil.

### 12.5. Results of PBT and vPvB assessment

<b>ProteClean Green+</b>
PBT: not relevant – no registration required
vPvB: not relevant – no registration required

Component	
sodium hydroxide (1310-73-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
sodium carbonate (497-19-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Disodium carbonate, compound with hydrogen peroxide (2:3) (15630-89-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Tetrasodium (1-hydroxyethylidene)bisphosphonate (3794-83-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
1-[2-[2-(3-methoxypropoxy)propoxy]ethoxy]butane (9038-95-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
subtilisin (9014-01-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
titanium dioxide (13463-67-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having 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

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Disposal must be done according to official regulations. European waste catalogue. Do not discharge into drains or the environment. Do not dispose of with domestic waste.
Product/Packaging disposal recommendations	: Recycle or dispose of in compliance with current legislation.
European List of Waste (LoW) code	: 20 01 29* - detergents containing dangerous substances
HP Code	: HP8 - "Corrosive:" waste which on application can cause skin corrosion.

## SECTION 14: Transport information






In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
UN 1823	UN 1823	UN 1823	UN 1823	UN 1823
<b>14.2. UN proper shipping name</b>				
SODIUM HYDROXIDE, SOLID	SODIUM HYDROXIDE, SOLID	Sodium hydroxide, solid	SODIUM HYDROXIDE, SOLID	SODIUM HYDROXIDE, SOLID

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## Safety Data Sheet

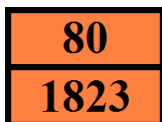
according to Regulation (EC) No. 1907/2006 (REACH)

Transport document description				
UN 1823 SODIUM HYDROXIDE, SOLID, 8, II, (E)	UN 1823 SODIUM HYDROXIDE, SOLID, 8, II	UN 1823 Sodium hydroxide, solid, 8, II	UN 1823 SODIUM HYDROXIDE, SOLID, 8, II	UN 1823 SODIUM HYDROXIDE, SOLID, 8, II
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR) : C6  
Limited quantities (ADR) : 1kg  
Excepted quantities (ADR) : E2  
Transport category (ADR) : 2  
Hazard identification number (Kemler No.) : 80  
Orange plates :



Tunnel restriction code (ADR) : E

#### Transport by sea

Limited quantities (IMDG) : 1 kg  
Excepted quantities (IMDG) : E2  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-B  
Segregation (IMDG) : SGG18, SG35

#### Air transport

PCA Excepted quantities (IATA) : E2  
PCA Limited quantities (IATA) : Y844  
PCA limited quantity max net quantity (IATA) : 5kg  
PCA packing instructions (IATA) : 859  
PCA max net quantity (IATA) : 15kg  
CAO max net quantity (IATA) : 50kg

#### Inland waterway transport

Classification code (ADN) : C6  
Limited quantities (ADN) : 1 kg  
Excepted quantities (ADN) : E2

#### Rail transport

Classification code (RID) : C6  
Limited quantities (RID) : 1kg  
Excepted quantities (RID) : E2  
Transport category (RID) : 2  
Hazard identification number (RID) : 80

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according to Regulation (EC) No. 1907/2006 (REACH)

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on
3(b)	1-[2-[2-(3-methoxypropoxy)propoxy]ethoxy]butane

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 0 %

Other information, restriction and prohibition regulations : Regulation (EC) No. 648/2004 of 31 March 2004 on detergents. Take note of Directive 94/33/EC on the protection of young people at work.

Detergent Regulation (648/2004/EC): Labelling of contents:

Component	%
oxygen-based bleaching agents	5-<15%
phosphonates, polycarboxylates, non-ionic surfactants	<5%
enzymes	

#### 15.1.2. National regulations

##### Ireland

National regulations : Refer to S.I. No. 299/2007 (Safety, Health and Welfare at Work (General Application) Regulations 2007) on the protection of young people at work (Art. 143-146).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Indication of changes:

Section	Changed item	Change	Comments
	General revision		
1.4	Emergency number	Modified	

### Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

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DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative

Data sources : Information provided by the manufacturer. MSDSs of the suppliers. European Chemicals Agency, <http://echa.europa.eu/>.

Department issuing data : KFT Chemieservice GmbH  
specification sheet: Im Leuschnerpark 3  
D-64347 Griesheim

Phone: +49 6155-8981-400  
Fax: +49 6155 8981-500  
SDS Service: +49 6155 8981-522

Contact person : Julia Wack

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Ox. Sol. 3	Oxidising Solids, Category 3
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2

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STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains SUBTILISIN. May produce an allergic reaction.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Met. Corr. 1	H290	Calculation method
Skin Corr. 1A	H314	Calculation method
Eye Dam. 1	H318	Calculation method

KFT SDS EU 00

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.