SAFETY DATA SHEET

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

1.1. Product identifier

Trade name

TaxaClean

Product no.

26236, 41835

Unique formula identifier (UFI)

FFN1-K0PY-V008-2T6F

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

Relevant identified uses of the substance or mixture

Alkaline dishwashing liquid with chlorine

Use descriptors (REACH)

Sectors of use	**Description**
LCS "IS"	Industrial uses: Uses of substances as such or in preparations at industrial sites
LCS "PW"	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Product category	**Description**
PC35	Washing and Cleaning Products (including solvent based products)
Process category	**Description**
PROC2	Use in closed, continuous process with occasional controlled exposure
Environmental release category	**Description**
ERC8a	Wide dispersive indoor use of processing aids in open systems

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Novadan ApS
Platinvej 21
DK-6000 Kolding
Denmark

E-mail

sds@novadan.dk

Revision

07/02/2023

SDS Version

2.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).
See section 4 “First aid measures”.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Met. Corr. 1; H290, May be corrosive to metals.
Skin Corr. 1A; H314, Causes severe skin burns and eye damage.
Eye Dam. 1; H318, Causes serious eye damage.
Aquatic Chronic 3; H412, Harmful to aquatic life with long lasting effects.
The informations stated in this MSDS, applies for the concentrated product.
See Sec. 16, for informations regarding recommended user solutions.

2.2. Label elements

Hazard pictogram(s)

Signal word

Danger

Hazard statement(s)

May be corrosive to metals. (H290)
Causes severe skin burns and eye damage. (H314)
Harmful to aquatic life with long lasting effects. (H412)

Safety statement(s)

General

-

Prevention

Wear eye protection/protective gloves/protective clothing. (P280)
Avoid release to the environment. (P273)

Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . (P303+P361+P353)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
Immediately call a POISON CENTER/doctor. (P310)

Storage

-

Disposal

-

Hazardous substances

Potassium Hydroxide
Sodium hydroxide
Sodium hypochlorite

Additional labelling

UFI: FFN1-K0PY-V008-2T6F

2.3. Other hazards

Do not mix with acid or acid containing products: toxic chlorine gas may be formed.

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.
This product does not contain any substances considered to be endocrine disruptors 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. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Potassium Hydroxide	CAS No.: 1310-58-3 EC No.: 215-181-3 UK-REACH: Index No.: 019-002-00-8	5 -15 %	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1B, H314 (SCL: 2.00 %) Skin Corr. 1A, H314 Skin Irrit. 2, H315 (SCL: 0.50 %) Eye Irrit. 2, H319 (SCL: 0.50 %)	
Disodium metasilicate, pentahydrate	CAS No.: 10213-79-3 EC No.: 229-912-9 UK-REACH: Index No.:	5 -15 %	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335	
Sodium hydroxide	CAS No.: 1310-73-2 EC No.: 215-185-5 UK-REACH: Index No.:	1 - 5 %	Met. Corr. 1, H290 Skin Corr. 1B, H314 (SCL: 2.00 %) Skin Corr. 1A, H314 Skin Irrit. 2, H315 (SCL: 0.50 %) Eye Dam. 1, H318 (SCL: 2.00 %) Eye Irrit. 2, H319 (SCL: 0.50 %)	

Sodium hypochlorite	CAS No.: 7681-52-9 EC No.: 231-668-3 UK-REACH: Index No.: 017-011-00-1	1 - 5 %	EUH031 Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

-

Labelling of contents according to Detergents Regulation (EC) No 648/2004

5% - 15%
· Phosphates
< 5%
· Chlorine-based bleaching Agents
· Phosphonates
· Polycarboxylates

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment.
Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.
If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit returning mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable.

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

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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

IF exposed or concerned:
Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Some metal oxides
Oxygen, hypochlorous acid, chlorine.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.
Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 “Disposal considerations” on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.
Avoid direct contact with the product.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Store the product away from direct sunlight in opaque containers
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Store in a container with a resistant inner liner.
Keep separate from food, feedstuffs, fertilisers and other sensitive material

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

-15 - 35 °C

Incompatible materials

Strong acids, alkali metals, metal powders, oxidizing materials and amines. Contact with metals can result in decomposition with the formation of oxygen.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Potassium Hydroxide
Short term exposure limit (15 minutes) (mg/m³): 2

Sodium hydroxide
Short term exposure limit (15 minutes) (mg/m³): 2

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

2-Phosphonobutan-1,2,4-tricarboxylic acid

Duration	Route of exposure	DNEL
Long term – Systemic effects - General population	Dermal	2.1 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	4.2 mg/kg bw/day
Short term – Systemic effects - General population	Dermal	40 mg/kg bw/day
Short term – Systemic effects - Workers	Dermal	80 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	3.7 mg/m³
Long term – Systemic effects - Workers	Inhalation	15 mg/m³
Short term – Systemic effects - General population	Inhalation	79 mg/m³
Short term – Systemic effects - Workers	Inhalation	158 mg/m³
Long term – Systemic effects - General population	Oral	2.1 mg/kg bw/day
Short term – Systemic effects - General population	Oral	65 mg/kg bw/day

Potassium Hydroxide

Duration	Route of exposure	DNEL
Long term – Local effects - General population	Inhalation	1 mg/m³
Long term – Local effects - Workers	Inhalation	1 mg/m³

Potassium tripolyphosphate

Duration	Route of exposure	DNEL
Long term – Systemic effects - General population	Inhalation	1.45 mg/m³
Long term – Systemic effects - Workers	Inhalation	5.88 mg/m³
Long term – Systemic effects - General population	Oral	70 mg/kg bw/day

Sodium hydroxide

Duration	Route of exposure	DNEL
Short term – Local effects - General population	Dermal	2 %
Long term – Local effects - General population	Inhalation	1 mg/m³
Long term – Local effects - Workers	Inhalation	1 mg/m³

Sodium hypochlorite

Duration	Route of exposure	DNEL
Long term – Local effects - General population	Inhalation	1.55 mg/m³
Long term – Local effects - Workers	Inhalation	1.55 mg/m³
Long term – Systemic effects - General population	Inhalation	1.55 mg/m³
Long term – Systemic effects - Workers	Inhalation	1.55 mg/m³
Short term – Local effects - General population	Inhalation	3.1 mg/m³
Short term – Local effects - Workers	Inhalation	3.1 mg/m³
Short term – Systemic effects - General population	Inhalation	3.1 mg/m³
Short term – Systemic effects - Workers	Inhalation	3.1 mg/m³
Long term – Systemic effects - General population	Oral	260 µg/kgbw/day

PNEC

2-Phosphonobutan-1,2,4-tricarboxylic acid

Route of exposure	Duration of Exposure	PNEC
Freshwater		666 µg/L
Freshwater sediment		2.398 mg/kg
Intermittent release (freshwater)		10.42 mg/L
Marine water		66 µg/L
Marine water sediment		239.8 µg/kg
Sewage treatment plant		50.4 mg/L

Soil	88.56 µg/kg

Sodium hypochlorite

Route of exposure	Duration of Exposure	PNEC
Freshwater		210 ng/L
Intermittent release (freshwater)		260 ng/L
Marine water		42 ng/L
Predators		11.1 mg/kg
Sewage treatment plant		4.69 mg/L

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

8.3. Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards	
In case of inadequate ventilation use suitable respirator - B/P2			EN143/EN149	

Skin protection

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Butyl rubber (≥0,4 mm). Neoprene (≥0,5 mm). Nitrile rubber (≥0,7 mm).	≥ 0,4 - 0,7	≥ 480	EN374	

Eye protection

Type	Standards	
Safety glasses	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Liquid
Colour
Yellowish
Odour / Odour threshold
Chlorine
pH
> 13
pH in solution
~ 11,5 (0,2 %)
Density (g/cm³)
~1,25
Kinematic viscosity
< 30 mPas
Particle characteristics
Does not apply to liquids.

Phase changes
Melting point/Freezing point (°C)
Testing not relevant or not possible due to the nature of the product.
Softening point/range (waxes and pastes) (°C)
Does not apply to liquids.
Boiling point (°C)
Testing not relevant or not possible due to the nature of the product.
Vapour pressure
Testing not relevant or not possible due to the nature of the product.
Relative vapour density
Testing not relevant or not possible due to the nature of the product.
Decomposition temperature (°C)
Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards
Flash point (°C)
Testing not relevant or not possible due to the nature of the product.
Auto-Ignition (°C)
Testing not relevant or not possible due to the nature of the product.
Flammability (°C)
Testing not relevant or not possible due to the nature of the product.
Lower and upper explosion limit (% v/v)
Testing not relevant or not possible due to the nature of the product.

Solubility
Solubility in water
Completely soluble
n-octanol/water coefficient
Testing not relevant or not possible due to the nature of the product.
Solubility in fat (g/L)
Testing not relevant or not possible due to the nature of the product.

9.2. Other information
VOC (g/L)
0
Other physical and chemical parameters
No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity
Contact with acids liberates toxic gas.
Reacts violently with alkali metals, metal powders, oxidizing materials and amines.
10.2. Chemical stability
The product is stable under the conditions, noted in section 7 “Handling and storage”.
10.3. Possibility of hazardous reactions
Contact with acids liberates toxic gas.
10.4. Conditions to avoid
Protect from sunlight. Do no expose to temperatures exceeding 20 °C/68 °F.

10.5. Incompatible materials

Strong acids, alkali metals, metal powders, oxidizing materials and amines. Contact with metals can result in decomposition with the formation of oxygen.

10.6. Hazardous decomposition products

Oxygen, hypochlorous acid, chlorine.

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance	Potassium Hydroxide
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	333 mg/kg
Other information	

Product/substance	Disodium metasilicate, pentahydrate
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	1152 -1349 mg/kg
Other information	

Product/substance	Disodium metasilicate, pentahydrate
Test method	
Species	Rat
Route of exposure	Inhalation
Test	LC50
Result	> 2,06 g/m3
Other information	

Product/substance	Disodium metasilicate, pentahydrate
Test method	
Species	
Route of exposure	Dermal
Test	LD50
Result	> 5000 mg/kg
Other information	

Product/substance	Potassium tripolyphosphate
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	> 2000 mg/kg
Other information	

Product/substance	Sodium hypochlorite
Test method	OECD 401
Species	Rat
Route of exposure	Oral
Test	LD50
Result	1100 mg/kg
Other information	

Product/substance	Sodium hypochlorite
Test method	OECD 403
Species	Rat
Route of exposure	Inhalation
Test	LC50
Result	> 10,5 mg/l
Other information	

Product/substance	Sodium hypochlorite

Test method	OECD 402
Species	Rabbit
Route of exposure	Dermal
Test	LD50
Result	> 20000 mg/kg
Other information	

Product/substance	Polyacrylic acid sodium salt
Test method	OECD 401
Species	Rat
Route of exposure	
Test	LD50
Result	>5000 mg/kg bw/day
Other information	

Product/substance	Polyacrylic acid sodium salt
Test method	
Species	Rabbit
Route of exposure	
Test	LD50
Result	>5000 mg/kg bw/day
Other information	

Product/substance	2-Phosphonobutan-1,2,4-tricarboxylic acid
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	> 6500 mg/kg
Other information	

Product/substance	2-Phosphonobutan-1,2,4-tricarboxylic acid
Test method	
Species	Rat
Route of exposure	Dermal
Test	LD50
Result	> 4000 mg/kg
Other information	

Product/substance	2-Phosphonobutan-1,2,4-tricarboxylic acid
Test method	
Species	Rat
Route of exposure	Inhalation
Test	LC50
Result	> 1979 mg/m3
Other information	

Skin corrosion/irritation

Product/substance	Sodium hydroxide
Test method	
Species	
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	

Product/substance	Sodium hypochlorite
Test method	
Species	
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Product/substance	Sodium hydroxide
Test method	
Species	
Duration	No data available.
Result	Adverse effect observed (Causes serious eye damage)

Other information

Product/substance	Sodium hypochlorite
Test method	
Species	
Duration	No data available.
Result	Adverse effect observed (Causes serious eye damage)
Other information	

Product/substance	2-Phosphonobutan-1,2,4-tricarboxylic acid
Test method	
Species	
Duration	No data available.
Result	Adverse effect observed (Irritating)
Other information	

Causes serious eye damage.

Respiratory sensitisation
Based on available data, the classification criteria are not met.

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.

STOT-single exposure
Based on available data, the classification criteria are not met.

STOT-repeated exposure
Based on available data, the classification criteria are not met.

Aspiration hazard
Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Long term effects
Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

Endocrine disrupting properties
No evidence for endocrine disrupting properties.

Other information
None known.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	Potassium Hydroxide
Test method	LC50
Species	Fish, Gambusia affinis
Compartment	
Duration	No data available.
Test	
Result	80 mg/l
Other information	

Product/substance	Disodium metasilicate, pentahydrate
Test method	
Species	Fish, Brachydanio rerio
Compartment	
Duration	No data available.
Test	
Result	210 mg/l
Other information	

Product/substance	Disodium metasilicate, pentahydrate
Test method	EC50

Species	Crustacean, Daphnia magna
Compartment	
Duration	No data available.
Test	
Result	1700 mg/l
Other information	

Product/substance	Potassium tripolyphosphate
Test method	LC0
Species	Fish, Golden Orfey
Compartment	
Duration	No data available.
Test	
Result	~ 800 mg/l
Other information	

Product/substance	Sodium hydroxide
Test method	LC50
Species	Fish
Compartment	
Duration	96 hours
Test	
Result	35 - 189 mg/l
Other information	

Product/substance	Sodium hydroxide
Test method	EC50
Species	Crustacean, Ceriodaphnia dubia
Compartment	
Duration	No data available.
Test	
Result	40,4 mg/l
Other information	

Product/substance	Sodium hypochlorite
Test method	
Species	Bacteria
Compartment	
Duration	3 hours
Test	
Result	> 3 mg/l
Other information	

Product/substance	Sodium hypochlorite
Test method	LC50
Species	Fish, Oncorhynchus mykiss
Compartment	
Duration	96 hours
Test	
Result	0,06 mg/l
Other information	

Product/substance	Sodium hypochlorite
Test method	LC50
Species	Fish, Oncorhynchus mykiss
Compartment	
Duration	96 hours
Test	
Result	0,032 mg/l
Other information	

Product/substance	Sodium hypochlorite
Test method	NOEC
Species	Fish, Menidia peninsulae
Compartment	
Duration	28 days
Test	
Result	0,04 mg/l
Other information	

Product/substance	Sodium hypochlorite
Test method	
Species	Algae, Pseudokirchneriella subcapitata
Compartment	
Duration	No data available.
Test	
Result	0,04 mg/l
Other information	

Product/substance	Sodium hypochlorite
Test method	
Species	Algae, Myriophyllum spicatum
Compartment	
Duration	96 hours
Test	
Result	0,1 mg/l
Other information	

Product/substance	Sodium hypochlorite
Test method	OECD 202
Species	Crustacean, Daphnia magna
Compartment	
Duration	48 hours
Test	
Result	0,141 mg/l
Other information	

Product/substance	Sodium hypochlorite
Test method	OECD 202
Species	Crustacean, Ceriodaphnia dubia
Compartment	
Duration	48 hours
Test	
Result	0,035 mg/l
Other information	

Product/substance	Sodium hypochlorite
Test method	EC50
Species	Crustacean, Crassostrea virginica
Compartment	
Duration	48 hours
Test	
Result	0,026 mg/l
Other information	

Product/substance	Sodium hypochlorite
Test method	NOEC
Species	Crustacean, Crassostrea virginica
Compartment	
Duration	14 days
Test	
Result	0,007 mg/l
Other information	

Product/substance	Polyacrylic acid sodium salt
Test method	DIN 38412
Species	Leuciscus idus
Compartment	
Duration	
Test	LC50
Result	>100 mg/L
Other information	

Product/substance	Polyacrylic acid sodium salt
Test method	
Species	Algae, Selenastrum capricornutum
Compartment	
Duration	
Test	LC50

Result	>100 mg/L
Other information	

Product/substance	2-Phosphonobutan-1,2,4-tricarboxylic acid
Test method	OECD 204
Species	Fish, Danio rerio
Compartment	
Duration	No data available.
Test	
Result	> 500 mg/l
Other information	

Product/substance	2-Phosphonobutan-1,2,4-tricarboxylic acid
Test method	OECD 204
Species	Fish, Danio rerio
Compartment	
Duration	14 days
Test	
Result	> 500 mg/l
Other information	

Product/substance	2-Phosphonobutan-1,2,4-tricarboxylic acid
Test method	EC50
Species	Algae, Desmodesmus subspicatus
Compartment	
Duration	No data available.
Test	
Result	> 500 mg/l
Other information	

Product/substance	2-Phosphonobutan-1,2,4-tricarboxylic acid
Test method	EC10
Species	Algae, Desmodesmus subspicatus
Compartment	
Duration	No data available.
Test	
Result	> 16,65 < 32,75 mg/l
Other information	

Product/substance	2-Phosphonobutan-1,2,4-tricarboxylic acid
Test method	OECD 202
Species	Crustacean, Daphnia magna
Compartment	
Duration	No data available.
Test	
Result	> 535,5 mg/l
Other information	

Product/substance	2-Phosphonobutan-1,2,4-tricarboxylic acid
Test method	OECD 211
Species	Crustacean, Daphnia magna
Compartment	
Duration	21 days
Test	
Result	52 mg/l
Other information	

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

The product is easily biodegradable.

Product/substance	Sodium hypochlorite
Biodegradable	Yes
Test method	
Result	

Product/substance	2-Phosphonobutan-1,2,4-tricarboxylic acid
Biodegradable	Yes
Test method	OECD 301 A
Result	30 - 40 %

12.3. Bioaccumulative potential
The product is not bioaccumulating

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties
No evidence for endocrine disrupting properties.

12.7. Other adverse effects
This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.
This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

Waste treatment methods
Product is covered by the regulations on hazardous waste.
HP 8 – Corrosive
HP 14 – Ecotoxic
Dispose of contents/container to an approved waste disposal plant.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code
07 06 01* Aqueous washing liquids and mother liquors

Specific labelling
Not applicable.

Contaminated packing
Packaging containing residues of the product must be disposed of similarly to the product.
Dispose unused product and the packaging in accordance with local requirements.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information
ADR	UN1719	CAUSTIC ALKALI LIQUID, N.O.S. (Potassium Hydroxide, Sodium hypochlorite)	Class: 8 Labels: 8 Classification code: C5 	II	No	Limited quantities: 1 L Tunnel restriction code: (E) See below for additional information.
IMDG	UN1719	CAUSTIC ALKALI LIQUID, N.O.S. (Potassium Hydroxide, Sodium hypochlorite)	Class: 8 Labels: 8 Classification code: C5 	II	No	Limited quantities: 1 L EmS: F-A S-B See below for additional information.
IATA	UN1719	CAUSTIC ALKALI LIQUID, N.O.S. (Potassium Hydroxide, Sodium hypochlorite)	Class: 8 Labels: 8 Classification code: C5 	II	No	See below for additional information.

* Packing group
** Environmental hazards

Additional information
ADR / See Table A, Section 3.2.1 for any information on special provisions, requirements, or warnings in connection

with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.
IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.
IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.
This product is within scope of the regulations of transport of dangerous goods.

14.6. Special precautions for user
Not applicable.

14.7. Maritime transport in bulk according to IMO instruments
No data available.

SECTION 15: Regulatory information

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

Restrictions for application
Restricted to professional users.
People under the age of 18 shall not be exposed to this product.

Demands for specific education
No specific requirements.

SEVESO - Categories / dangerous substances
Not applicable.

Additional information
Not applicable.

Sources
The Management of Health and Safety at Work Regulations 1999.
Regulation (EC) No 648/2004 on detergents as retained and amended in UK law.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.
Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment
No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3
EUH031, Contact with acids liberates toxic gas.
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.
H335, May cause respiratory irritation.
H400, Very toxic to aquatic life.
H410, Very toxic to aquatic life with long lasting effects.

The full text of identified uses as mentioned in section 1
LCS "IS" = Industrial uses: Uses of substances as such or in preparations at industrial sites
LCS "PW" = Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
PROC2 = Use in closed, continuous process with occasional controlled exposure
PC35 = Washing and Cleaning Products (including solvent based products)
ERC8a = Wide dispersive indoor use of processing aids in open systems

Abbreviations and acronyms
ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.
The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.
Durability: 12 months

The safety data sheet is validated by

JUBO

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: GB-en