

SAFETY DATA SHEET

## Afkalder kraftig TZ 15

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

#### 1.1. Product identifier

##### Trade name

Afkalder kraftig TZ 15

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

##### Relevant identified uses of the substance or mixture

Specialized strong decalcifier  
Restricted to professional users.

##### Product code (A.I.S.E.)

AISE-C14 / DESCALERS.

##### Use descriptors (REACH)

Sectors of use	Description
LCS "PW"	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Product category	Description
PC 35	Washing and Cleaning Products (including solvent based products)
Process category	Description
PROC 10	Roller application or brushing
Environmental release category	Description
ERC 2	Formulation of preparations

##### Uses advised against

None known.

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

##### Company and address

**Pureno A/S**  
Rønnevangs Allé 8  
3400 Hillerød  
Denmark  
7026 0267

##### Contact person

Rakhshinda Shafqat

##### E-mail

rh@iduna.dk

##### Revision

30/10/2024

##### SDS Version

1.0

#### 1.4. Emergency telephone number

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24 hour service)

General public:

England - Dial 111 to reach NHS 111 (24 hour service)

Scotland - Dial 112 to reach NHS 24 (24 hour service)

Wales - Dial 111 or 0845 4647 to reach NHS Direct (24 hour service)

See section 4 "First aid measures".

### SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

### 2.1. Classification of the substance or mixture

Skin Corr. 1B; H314, Causes severe skin burns and eye damage.  
Eye Dam. 1; H318, Causes serious eye damage.

### 2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

Causes severe skin burns and eye damage. (H314)

Precautionary statement(s)

General

-

Prevention

Do not breathe vapour/mist. (P260)

Wear eye protection/protective gloves/protective clothing. (P280)

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

Dispose of contents/container in accordance with local regulation (P501)

Hazardous substances

Hydrochloric acid

oxalic acid

ammonium hydrogendifluoride

lactic acid

Additional labelling

Not applicable.

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

< 5%

· Amphoteric surfactants

· Anionic surfactants

· Non-ionic surfactants

### 2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

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) 2023/707.

## 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
Hydrochloric acid	CAS No.: 7647-01-0 EC No.: 231-595-7 UK-REACH: Index No.: 017-002-00-2	3-5%	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335	[1]
Ethanol	CAS No.: 64-17-5 EC No.: 200-578-6	3-5%	Flam. Liq. 2, H225 Eye Irrit. 2, H319	

	UK-REACH: Index No.: 603-002-00-5		
citric acid	CAS No.: 77-92-9 EC No.: 201-069-1 UK-REACH: Index No.: 607-750-00-3	3-5%	Eye Irrit. 2, H319 STOT SE 3, H335
oxalic acid	CAS No.: 6153-56-6 EC No.: 612-167-2 UK-REACH: Index No.:	1-3%	Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Dam. 1, H318
ammonium hydrogendifluoride	CAS No.: 1341-49-7 EC No.: 215-676-4 UK-REACH: Index No.: 009-009-00-4	1-3%	Acute Tox. 3, H301 Skin Corr. 1B, H314 Eye Dam. 1, H318
poly glycol ether	CAS No.: 9038-95-3 EC No.: 618-542-7 UK-REACH: Index No.:	1-3%	Acute Tox. 4, H302
propan-2-ol isopropyl alcohol isopropanol	CAS No.: 67-63-0 EC No.: 200-661-7 UK-REACH: Index No.: 603-117-00-0	1-3%	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
lactic acid	CAS No.: 79-33-4 EC No.: 201-196-2 UK-REACH: Index No.:	1-3%	EUH071 Skin Corr. 1C, H314 Eye Dam. 1, H318

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

#### Other information

[1] European occupational exposure limit.

### 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

If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. 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 from returning to the 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

Not applicable.

#### 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:

Halogenated compounds  
Carbon oxides (CO / CO<sub>2</sub>)

#### 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.

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

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

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

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 in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits.

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

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

**Storage conditions**

> 0°C

**Incompatible materials**

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

**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**

Ethanol

Long term exposure limit (8 hours) (ppm): 1000

Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 1920

propan-2-ol isopropyl alcohol isopropanol

Long term exposure limit (8 hours) (ppm): 400

Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 999

Short term exposure limit (15 minutes) (ppm): 500

Short term exposure limit (15 minutes) (mg/m<sup>3</sup>): 1250

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**

ammonium hydrogendifluoride

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects	Inhalation	2,3 mg/m <sup>3</sup>

Ethanol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	343 mg/kg/bw/day
Long term – Systemic effects - Workers	Inhalation	950 mg/m <sup>3</sup>
Short term – Local effects - Workers	Inhalation	1900 mg/m <sup>3</sup>

Hydrochloric acid

Duration:	Route of exposure:	DNEL:
Long term – Local effects - Workers	Inhalation	8 mg/m <sup>3</sup>
Short term – Local effects - Workers	Inhalation	15 mg/m <sup>3</sup>

oxalic acid

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	2,29 mg/kg uge/dag
Short term – Local effects - Workers	Dermal	0,69 mg/cm <sup>2</sup>
Long term – Systemic effects - Workers	Inhalation	4,03 mg/m <sup>3</sup>

propan-2-ol isopropyl alcohol isopropanol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Inhalation	500 mg/m <sup>3</sup>

**PNEC**

ammonium hydrogendifluoride

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		1,3 mg/l
Sewage treatment plant		76 mg/l
Soil		22 mg/kg

citric acid		
<b>Route of exposure:</b>	<b>Duration of Exposure:</b>	<b>PNEC:</b>
Freshwater		0,44
Marine water		0,044
Sewage treatment plant		>1000
Ethanol		
<b>Route of exposure:</b>	<b>Duration of Exposure:</b>	<b>PNEC:</b>
Freshwater		0,96mg/l
Freshwater sediment		3,6 mg/kg dw
Intermittent release		2,75 mg/l
Marine water		0,79 mg/l
Marine water sediment		2,9 mg/kg dw
Sewage treatment plant		580 mg/l
Soil		0,63 mg/kg
Hydrochloric acid		
<b>Route of exposure:</b>	<b>Duration of Exposure:</b>	<b>PNEC:</b>
Freshwater		0,036 mg/l
Marine water		0,036 mg/l
Sewage treatment plant		0,036 mg/l
oxalic acid		
<b>Route of exposure:</b>	<b>Duration of Exposure:</b>	<b>PNEC:</b>
Freshwater		0,1622 mg/l
Intermittent release		1,622 mg/l
Marine water		0,01622 mg/l
propan-2-ol isopropyl alcohol isopropanol		
<b>Route of exposure:</b>	<b>Duration of Exposure:</b>	<b>PNEC:</b>
Freshwater		140,9 mg/l
Freshwater sediment		522 mg/kg
Marine water		140,9 mg/l
Marine water sediment		552 mg/kg
Sewage treatment plant		2251 mg/l
Soil		28 mg/kg

## 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.

Ensure that eyewash stations and safety showers are located within easy reach.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

### 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. Pay special attention to hands, forearms and face.

**Measures to avoid environmental exposure**


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

**Individual protection measures, such as personal protective equipment**

**Generally**

Use only UKCA marked protective equipment.


**Respiratory Equipment**

Type	Class	Colour	Standards	
S/SL	P2	White	EN149	


**Skin protection**

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

**Hand protection**

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0.4	> 480	EN374-2, EN374-3, EN388	

**Eye protection**

Type	Standards	
Safety glasses with side shields.	EN166	

**SECTION 9: Physical and chemical properties**

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

**Physical state**

Liquid

**Colour**

Colourless

**Odour / Odour threshold**

Sour

**pH**

1,8 +/-1

**pH in solution**

1,9 (2%)

**Density (g/cm<sup>3</sup>)**

1.05 (20 °C)

**Kinematic viscosity**

No relevant or available data due to the nature of the product.

**Particle characteristics**

Does not apply to liquids.

**Phase changes**

**Melting point/Freezing point (°C)**

No relevant or available data due to the nature of the product.

**Softening point/range (°C)**

Does not apply to liquids.

**Boiling point (°C)**

No relevant or available data due to the nature of the product.

#### Vapour pressure

No relevant or available data due to the nature of the product.

#### Relative vapour density

No relevant or available data due to the nature of the product.

#### Decomposition temperature (°C)

No relevant or available data due to the nature of the product.

#### Data on fire and explosion hazards

##### Flash point (°C)

No relevant or available data due to the nature of the product.

##### Flammability (°C)

No relevant or available data due to the nature of the product.

##### Auto-ignition temperature (°C)

No relevant or available data due to the nature of the product.

##### Lower and upper explosion limit (% v/v)

No relevant or available data due to the nature of the product.

#### Solubility

##### Solubility in water

Completely soluble

##### n-octanol/water coefficient (LogKow)

No relevant or available data due to the nature of the product.

##### Solubility in fat (g/L)

No relevant or available data due to the nature of the product.

#### 9.2. Other information

##### Other physical and chemical parameters

No data available.

##### Oxidizing properties

No relevant or available data due to the nature of the product.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available.

#### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

#### 10.3. Possibility of hazardous reactions

None known.

#### 10.4. Conditions to avoid

None known.

#### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

#### 10.6. Hazardous decomposition products

Thermal decomposition may produce corrosive vapours.

### SECTION 11: Toxicological information

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

##### Acute toxicity

Product/substance	Hydrochloric acid
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	273 mg/kg ·

Product/substance	Hydrochloric acid
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	5010 mg/kg ·

Product/substance	Hydrochloric acid
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Species: Rat  
Route of exposure: Inhalation  
Test: LC50  
Result: 8,3 mg/l ·

Product/substance Ethanol  
Species: Rat  
Route of exposure: Oral  
Test: LD50  
Result: 7060 mg/kg ·

Product/substance Ethanol  
Species: Rabbit  
Route of exposure: Dermal  
Test: LD lo  
Result: 20 gram/kg ·

Product/substance Ethanol  
Species: Rat  
Route of exposure: Inhalation  
Test: LC50  
Result: 2000 ppm 10H ·

Product/substance citric acid  
Species: Rat  
Route of exposure: Oral  
Test: LD50  
Result: 6730 mg/kg ·

Product/substance citric acid  
Species: Rat  
Route of exposure: Dermal  
Test: LD50  
Result: >2000 mg/kg ·

Product/substance oxalic acid  
Species: Rat  
Route of exposure: Oral  
Test: LD50  
Result: 375 mg/kg ·

Product/substance oxalic acid  
Species: Rabbit  
Route of exposure: Dermal  
Test: LD50  
Result: 20000 mg/kg ·

Product/substance ammonium hydrogendifluoride  
Species: Rat  
Route of exposure: Oral  
Test: LD50  
Result: 130 mg/kg ·

Product/substance ammonium hydrogendifluoride  
Species: Rat  
Route of exposure: Inhalation  
Test: LC50  
Result: 1276 mg/l 1h ·

Product/substance poly glycol ether  
Species: Rat  
Route of exposure: Oral  
Test: LD50  
Result: 200-2000 mg/kg ·

Product/substance: propan-2-ol isopropyl alcohol isopropanol  
Species: Rat  
Route of exposure: Oral  
Test: LD50  
Result: 5045 mg/kg ·

Product/substance: propan-2-ol isopropyl alcohol isopropanol  
Species: Rabbit  
Route of exposure: Dermal  
Test: LD50  
Result: 12800 mg/kg ·

Product/substance: propan-2-ol isopropyl alcohol isopropanol  
Species: Rat  
Route of exposure: Inhalation  
Test: LC50  
Result: 16000 mg/l ·

Product/substance: lactic acid  
Species: Rat  
Route of exposure: Oral  
Test: LD50  
Result: 3730 mg/kg

Product/substance: lactic acid  
Species: Rabbit  
Route of exposure: Dermal  
Test: LD50  
Result: >2000 mg/kg ·

Product/substance: lactic acid  
Species: Mouse  
Route of exposure: Oral  
Test: LD50  
Result: 4875 mg/kg

#### Skin corrosion/irritation

Product/substance: Hydrochloric acid  
Test method: OECD 404  
Species: Rabbit  
Duration: 4 hours  
Result: Adverse effect observed (Corrosive)

Causes severe skin burns and eye damage.

#### Serious eye damage/irritation

Product/substance: Hydrochloric acid  
Test method: OECD 405  
Species: Rabbit  
Duration: No data available.  
Result: Adverse effect observed (Highly corrosive)

Product/substance: oxalic acid  
Test method: OECD 405  
Species: Rabbit  
Duration: No data available.  
Result: Adverse effect observed (Causes serious eye damage)

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

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

#### Other information

Hydrochloric acid has been classified by IARC as a group 3 carcinogen.

Ethanol has been classified by IARC as a group 1 carcinogen.

propan-2-ol isopropyl alcohol isopropanol has been classified by IARC as a group 3 carcinogen.

## SECTION 12: Ecological information

### 12.1. Toxicity

Product/substance	Hydrochloric acid
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	20,5 mg/l ·

Product/substance	Hydrochloric acid
Species:	Algae
Duration:	72 hours
Test:	EC50
Result:	0,73 mg/l ·

Product/substance	Hydrochloric acid
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	0,45 mg/l ·

Product/substance	citric acid
Species:	Daphnia
Duration:	72 hours
Test:	EC50
Result:	120 mg/l ·

Product/substance	oxalic acid
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	160 mg/l ·

Product/substance	oxalic acid
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	162.2 mg/l ·

Product/substance	ammonium hydrogendifluoride
Species:	Fish

Duration: 96 hours  
Test: LC50  
Result: 237 mg/l ·

Product/substance ammonium hydrogendifluoride  
Duration: 96 hours  
Test: LC100  
Result: 562 mg/L ·

Product/substance ammonium hydrogendifluoride  
Duration: No data available.  
Test: EC10  
Result: 1317 mg/l ·

Product/substance ammonium hydrogendifluoride  
Species: Daphnia  
Duration: 48 hours  
Test: EC50  
Result: 97 mg/l ·

Product/substance ammonium hydrogendifluoride  
Species: Algae  
Duration: 96 hours  
Test: EC50  
Result: 43 mg/l ·

Product/substance poly glycol ether  
Species: Daphnia  
Duration: 48 hours  
Test: EC50  
Result: >100 mg/l ·

Product/substance poly glycol ether  
Species: Fish  
Duration: 96 hours  
Test: LC50  
Result: >100 mg/l ·

Product/substance propan-2-ol isopropyl alcohol isopropanol  
Species: Algae  
Duration: 24 hours  
Test: EC50  
Result: 1000000 ug/l ·

Product/substance propan-2-ol isopropyl alcohol isopropanol  
Species: Fish  
Duration: 48 hours  
Test: LC50  
Result: 1400000 ug/l ·

Product/substance lactic acid  
Species: Fish  
Duration: 96 hours  
Test: LC50  
Result: 320 mg/l ·

Product/substance lactic acid  
Species: Daphnia  
Duration: 48 hours  
Test: EC50  
Result: 240 mg/l ·

Product/substance lactic acid  
Species: Algae

Duration: 72 hours  
 Test: IC50  
 Result: 3500 mg/l

#### 12.2. Persistence and degradability

Product/substance poly glycol ether  
 Result: >60%  
 Conclusion: Readily biodegradable  
 Test: OECD 301 F

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents as retained and amended in UK law. 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.

#### 12.3. Bioaccumulative potential

Product/substance citric acid  
 LogKow: -1.7200  
 Conclusion: -

Product/substance oxalic acid  
 LogKow: -1.7000  
 Conclusion: No potential for bioaccumulation

Product/substance ammonium hydrogendifluoride  
 LogKow: -4.3700  
 Conclusion: No potential for bioaccumulation

Product/substance propan-2-ol isopropyl alcohol isopropanol  
 LogKow: 0.0500  
 Conclusion: No potential for bioaccumulation

Product/substance lactic acid  
 LogKow: -0.6200  
 Conclusion: No potential for bioaccumulation

#### 12.4. Mobility in soil

propan-2-ol isopropyl alcohol isopropanol  
 LogKoc = 0.117995, High mobility potential.

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

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

#### 12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

#### 12.7. Other adverse effects

None known.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste. (\*)  
 HP 8 – Corrosive  
 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

20 01 14\* Acids

#### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

### SECTION 14: Transport information

	<b>14.1 UN / ID</b>	<b>14.2 UN proper shipping name</b>	<b>14.3 Hazard class(es)</b>	<b>14.4 PG*</b>	<b>14.5 Env**</b>	<b>Other informatio n:</b>
ADR	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (lactic acid)	Transport hazard class: 8 Label: 8 Classification code: C1 	III	No	Limited quantities: 5 L Tunnel restriction code: (E) See below for additional information .
IMDG	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (lactic acid)	Transport hazard class: 8 Label: 8 Classification code: C1 	III	No	Limited quantities: 5 L EmS: F-A S-B See below for additional information .
IATA	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (lactic acid)	Transport hazard class: 8 Label: 8 Classification code: C1 	III	No	See below for additional information .

\* Packing group

\*\* Environmental hazards

#### Additional information

This product is within scope of the regulations of transport of dangerous goods.

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.

#### 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

Hydrochloric acid

#### Regulation on drug precursors

Hydrochloric acid is included (Category 3)

#### REACH, Annex XVII

Ethanol is subject to UK-REACH restrictions (entry 40).

propan-2-ol isopropyl alcohol isopropanol is subject to UK-REACH restrictions (entry 40).

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

< 5%

- Amphoteric surfactants
- Anionic surfactants
- Non-ionic surfactants

#### Additional information

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents as retained and amended in UK law. 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.

#### Sources

The Management of Health and Safety at Work Regulations 1999.

The Health and Safety at Work etc. Act 1974 Regulations 2013.

Regulation (EC) No 648/2004 on detergents as retained and amended in UK law.

Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

The Controlled Drugs (Drug Precursors) Regulations 2008.

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

H314, Corrosive to the respiratory tract.

H225, Highly flammable liquid and vapour.

H290, May be corrosive to metals.

H301, Toxic if swallowed.

H302, Harmful if swallowed.

H312, Harmful in contact with skin.

H314, Causes severe skin burns and eye damage.

H318, Causes serious eye damage.

H319, Causes serious eye irritation.

H335, May cause respiratory irritation.

H336, May cause drowsiness or dizziness.

#### The full text of identified uses as mentioned in section 1

LCS "PW" = Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

PROC 10 = Roller application or brushing

PC 35 = Washing and Cleaning Products (including solvent based products)

ERC 2 = Formulation of preparations

#### 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 (European conformity)

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  
EuPCS = European Product Categorisation System  
EWC = European Waste Catalogue  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
GWP = Global warming potential  
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 safety data sheet is validated by

MS

#### Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a 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.

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