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# Safety data sheet

### according to Regulation (EC) No 1907/2006, Article 31

Printing date 27.03.2025 Version number 17 (replaces version 16) Revision: 27.03.2025

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

· 1.1 Product identifier

· Trade name: Algae\_and\_Mildew\_Remover\_Power

· Article number: 10825, 10832, 10833, 10997, 10998, 10882, 10883

· UFI: PUJ4-A00V-900V-MM4Q

1.2 Relevant identified uses of the substance or mixture and

**uses advised against**No further relevant information available.

· Application of the substance / the

<u>mixture</u> Cleaning agent/ Cleaner

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH

Laboratory

Lechstrasse 28 D 90451 Nürnberg

· Further information obtainable

<u>from:</u>

1.4 Emergency telephone

<u>number:</u> Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH

Tel. +49(0)911-64296-59

Reachable during the following office hours: Monday – Thursday from 07:30 a.m. to 16:30 p.m.

Friday from 07:30 a.m. to 13:30 p.m.

#### **SECTION 2: Hazards identification**

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

Met. Corr.1 H290 May be corrosive to metals. Skin Irrit. 2 H315 Causes skin irritation.

Eye Dam. 1 H318 Causes serious eye damage. Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

· 2.2 Label elements

· Labelling according to Regulation

(EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



011000 0110

· <u>Signal word</u> Danger

· Hazard-determining components of

labelling: sodium hypochlorite, solution
Hazard statements H290 May be corrosive to metals.
H315 Causes skin irritation.

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements P101 If medical advice is needed, have product container or label at

hand

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.
P260 Do not breathe mist/vapours/spray.
P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face

protection/hearing protection.

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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.

P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.
P406 Store in a corrosion resistant container / container with a

resistant inner liner.

P501 Dispose of contents/container in accordance with local/

regional/national/international regulations.

· <u>Additional information:</u> EUH031 Contact with acids liberates toxic gas.

2.3 Other hazards

· Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

· Determination of endocrine-

disrupting properties For information on endocrine disrupting properties see section 11.

### **SECTION 3: Composition/information on ingredients**

· 3.2 Mixtures

· <u>Description:</u> Mixture: consisting of the following components.

· Dangerous components:		
CAS: 7681-52-9	sodium hypochlorite, solution	1-5%
EINECS: 231-668-3	Met. Corr.1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318	
Index number: 017-011-00-1	Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1)	
Reg.nr.: 01-2119488154-34-xxxx	STOT SE 3, H335	
	EUH031	
	Specific concentration limit: EUH031: C ≥ 5 %	

· Regulation (EC) No 648/2004 on detergents / Labelling for contents

chlorine-based bleaching agents

· Additional information: For the wording of the listed hazard phrases refer to section 16.

#### **SECTION 4: First aid measures**

· 4.1 Description of first aid measures

• General information: Immediately remove any clothing soiled by the product. Supply fresh air; consult doctor in case of complaints.

· After skin contact: Immediately rinse with water.

If skin irritation continues, consult a doctor.

· After eye contact: Rinse opened eye for several minutes under running water. Then consult a

doctor.

· After swallowing: Rinse out mouth and then drink plenty of water.

4.2 Most important symptoms and effects, both acute and

<u>delayed</u> No further relevant information available.

• 4.3 Indication of any immediate medical attention and special

treatment needed No further relevant information available.

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<5%



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#### **SECTION 5: Firefighting measures**

5.1 Extinguishing media

· Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol

resistant foam.

5.2 Special hazards arising from

the substance or mixture Formation of toxic gases is possible during heating or in case of fire.

Hydrogen chloride (HCI)

5.3 Advice for firefighters

Wear fully protective suit. · Protective equipment:

Wear self-contained respiratory protective device.

#### **SECTION 6: Accidental release measures**

· 6.1 Personal precautions, protective equipment and

emergency procedures Not required.

· 6.2 Environmental precautions: Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage

system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for

containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal

binders, sawdust).

Ensure adequate ventilation.

· 6.4 Reference to other sections No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### **SECTION 7: Handling and storage**

· 7.1 Precautions for safe

handling Do not seal receptacles gas-tight.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and

No special measures required. explosion protection:

· 7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by

storerooms and receptacles: Store in a cool location.

· Information about storage in one

common storage facility: Do not store together with acids.

Store away from metals.

· Further information about storage

conditions: Protect from heat and direct sunlight.

Store receptacle in a well ventilated area.

Protect from frost.

Keep container tightly sealed.

Storage class:

12 · 7.3 Specific end use(s) No further relevant information available.

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#### **SECTION 8: Exposure controls/personal protection**

· 8.1 Control parameters

· Ingredients with limit values that

require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical

values that have to be monitored at the workplace. The lists valid during the making were used as basis.

· Additional information:

Hand protection

· 8.2 Exposure controls

· Appropriate engineering controls No further data; see section 7.

· Individual protection measures, such as personal protective equipment

· General protective and hygienic

Immediately remove all soiled and contaminated clothing measures:

Do not inhale gases / fumes / aerosols.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of

intensive or longer exposure use self-contained respiratory protective device. Skin protection agent recommendation for preventive skin shelter without use of

protective gloves:

STOKODERM (http://www.stoko.com)

Skin protection agent recommendation for preventive skin shelter in application

and combination of protective gloves: STOKO EMULSION (http://www.stoko.com)

Skin protection recommendation for skin cleaning after product handling:

FRAPANTOL (http://www.stoko.com)

Skin protection agent recommendation for skin aftercare:

STOKO VITAN (http://www.stoko.com)

The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory anylyses of the company KCL

GmbH in compliance with EN374.

This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH,

Germany, 36124 Eichenzell, internet: http://www.kcl.de).

Preventive skin protection by use of skin-protecting agents is recommended. After use of gloves apply skin-cleaning agents and skin cosmetics.



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

 Material of gloves Butyl rubber, BR

Nitrile rubber, NBR

Fluorocarbon rubber (Viton) Chloroprene rubber, CR

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Natural rubber, NR

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The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

Value for the permeation: Level ≤ 6; 480 min

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Camatril (KCL, Art\_No. 730, 731, 732, 733)

Dermatril (Art\_No. 740, 741, 742) Fluorocarbon rubber (Viton) Vitoject (KCL, Art\_No. 890) Chloroprene rubber, CR

Camapren (KCL, Art No. 720, 722, 726)

Natural rubber, NR

Combi-Latex (KCL, Art\_No. 395)

Butyl rubber, BR

Butoject (KCL, Art\_No. 897, 898)

· As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR

Camatril (KCL, 730, 731, 732, 733)

Butyl rubber, BR

Butoject (KCL, Art No. 897, 898)

· Not suitable are gloves made of the following materials:

Leather gloves

Strong material gloves

· Eye/face protection



Tightly sealed goggles

· Body protection:

Protective work clothing

### **SECTION 9: Physical and chemical properties**

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

· General Information

Colour: Yellowish Chlorine-like · Odour: · Odour threshold: Not determined. 0°C

· Melting point/freezing point: · Boiling point or initial boiling point and boiling range

100 °C Not applicable. Flammability

· Lower and upper explosion limit

· Lower: Not determined. · Upper: Not determined. · Flash point: Not applicable.

· Decomposition temperature: Not determined.

12-13 · pH at 20 °C

· Viscosity:

· Kinematic viscosity Not determined. Not determined. · Dynamic:

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Solubility

water: Fully miscible.
 Partition coefficient n-octanol/water (log value)
 Not determined.

· Vapour pressure at 20 °C: 23 hPa

Density and/or relative density

Density at 20 °C:
 Relative density
 Vapour density
 Not determined.
 Not determined.

· 9.2 Other information

· Appearance:

· Form:

· Important information on protection of health and

environment, and on safety.

· <u>Ignition temperature:</u> Product is not selfigniting.

· Explosive properties: Product does not present an explosion hazard.

· Solvent content:

 · Water:
 95.1 %

 · Solids content:
 0.0 %

 · Molecular weight
 18.02 g/mol

· Change in condition

· Evaporation rate Not determined.

· Information with regard to physical hazard classes

Void Explosives Void · Flammable gases Void · Aerosols Void Oxidising gases · Gases under pressure Void · Flammable liquids Void · Flammable solids Void · Self-reactive substances and mixtures Void · Pyrophoric liquids Void · Pyrophoric solids Void Self-heating substances and mixtures Void

Substances and mixtures, which emit flammable gases in contact with water
 Oxidising liquids

Void
Void

· Oxidising solids Void · Organic peroxides Void

· <u>Corrosive to metals</u> May be corrosive to metals.

Desensitised explosives Void

**SECTION 10: Stability and reactivity** 

• **10.1 Reactivity** No further relevant information available.

10.2 Chemical stability

• Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

· 10.3 Possibility of hazardous

**reactions** Reacts with acids releasing chlorine.

Reacts with certain metals.

• 10.4 Conditions to avoid
• 10.5 Incompatible materials:

No further relevant information available.

No further relevant information available.

· 10.6 Hazardous decomposition

products: Hydrogen chloride (HCI)

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Chlorine compounds

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#### **SECTION 11: Toxicological information**

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

· Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

### 7681-52-9 sodium hypochlorite, solution

Oral		>1,100 mg/kg (rat)
Dermal	LD50	>20,000 mg/kg (rabbit)
Inhalative		>10.5 mg/l (rat)

· Primary irritant effect:

Skin corrosion/irritation
 Serious eye damage/irritation
 Causes skin irritation.
 Causes serious eye damage.

Respiratory or skin sensitisation

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

• Germ cell mutagenicity
• Carcinogenicity
• Carcinogenicity
• Based on available data, the classification criteria are not met.
• Based on available data, the classification criteria are not met.

Reproductive toxicity
 STOT-single exposure
 STOT-repeated exposure
 Aspiration hazard
 Based on available data, the classification criteria are not met.
 Based on available data, the classification criteria are not met.
 Based on available data, the classification criteria are not met.

· 11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

#### **SECTION 12: Ecological information**

### · 12.1 Toxicity

· Aquatic toxion	city:			
		-	 	

### 7681-52-9 sodium hypochlorite, solution

EC50 >3 mg/l (BES)

EC50/48h 0.141 mg/l (daphnia magna)

0.026 mg/l (piscis)

NOEC 0.04 mg/l (piscis)

EC50/48h 0.141 mg/l (daphnia magna)

LC50/96h | 0.06 mg/l (salmon)

12.2 Persistence and

degradability
 12.3 Bioaccumulative potential
 12.4 Mobility in soil
 No further relevant information available.
 No further relevant information available.

12.5 Results of PBT and vPvB assessment

· PBT: Not applicable. · vPvB: Not applicable.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

· Additional ecological information:

Rinse off of bigger amounts into drains or the aquatic environment may lead to

increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

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Do not allow product to reach ground water, water course or sewage system. Water hazard class 2 (German Regulation) (Self-assessment): hazardous for

**SECTION 13: Disposal considerations** 

· 13.1 Waste treatment methods

· Recommendation Must be specially treated adhering to official regulations.

Smaller quantities can be disposed of with household waste.

· Uncleaned packaging:

· Recommendation: Empty contaminated packagings thoroughly. They may be recycled after

thorough and proper cleaning.

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

### **SECTION 14: Transport information**

· 14.1 UN number or ID number	
· ADR, IMDG, IATA	UN1791

· 14.2 UN proper shipping name

1791 HYPOCHLORITE SOLUTION, ENVIRONMENTALLY · ADR

**HAZARDOUS** 

· IMDG HYPOCHLORITE SOLUTION, MARINE POLLUTANT

HYPOCHLORITE SOLUTION · IATA

### 14.3 Transport hazard class(es)

· ADR



· Class 8 (C9) Corrosive substances.

· Label

·IMDG





· Class 8 Corrosive substances. · Label

· IATA



· Class 8 Corrosive substances.

· Label

· 14.4 Packing group

· ADR, IMDG, IATA

· 14.5 Environmental hazards: Product contains environmentally hazardous substances:

· Marine pollutant: Symbol (fish and tree)

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	· Special marking (ADR):	Symbol (fish and tree)
--	--------------------------	------------------------

• 14.6 Special precautions for user Warning: Corrosive substances.

Hazard identification number (Kemler code):
 EMS Number:
 F-A,S-B

· Segregation groups (SGG8) Hypochlorites

· Stowage Category

Segregation Code SG20 Stow "away from" SGG1-acids

### · 14.7 Maritime transport in bulk according to IMO

<u>instruments</u> Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ) 5L

· Excepted quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

· Transport category 3
· Tunnel restriction code E

·IMDG

· Limited quantities (LQ) 5L · Excepted quantities (EQ) Coo

Excepted quantities (EQ)

Code: E1

Maximum pet quantity per in

Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

· <u>UN "Model Regulation":</u> UN 1791 HYPOCHLORITE SOLUTION, 8, III,

**ENVIRONMENTALLY HAZARDOUS** 

#### **SECTION 15: Regulatory information**

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

· Directive 2012/18/EU

· Named dangerous substances -

ANNEX I None of the ingredients is listed.

· Seveso category E1 Hazardous to the Aquatic Environment

· Qualifying quantity (tonnes) for the

application of lower-tier

<u>requirements</u> 200 t

· Qualifying quantity (tonnes) for the

application of upper-tier

requirements 500 t

· REGULATION (EC) No 1907/2006

ANNEX XVII Conditions of restriction: 3

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

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· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

National regulations:

· Information about limitation of use: Employment restrictions concerning juveniles must be observed.

· Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

· VOC EU 0.0 g/l

15.2 Chemical safety

**assessment:** A Chemical Safety Assessment has not been carried out.

#### **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This Safety Data Sheets is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

Department issuing SDS:
 Date of previous version:
 Laboratory
 22.11.2023

Version number of previous

version:
Abbreviations and acronyms:

16

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de for (Pagulations Concerning the International Transport of Depagareus Coade by Reil)

fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European

Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Met. Corr.1: Corrosive to metals – Category 1 Skin Corr. 1B: Skin corrosion/irritation – Category 1B Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

ΕU