

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

Product identifier

- Trade name: **Algae and Mildew Remover Longlife**
- Article number: 10983, 10984
- Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.
- Application of the substance / the preparation: Biocide
Cleaning agent/ Cleaner

Details of the supplier of the safety data sheet

- Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
Lechstrasse 28
D 90451 Nürnberg
Tel. +49(0)911-642960
Fax. +49(0)911-644456
e-mail info@akemi.de
- Further information obtainable from: Laboratory
Dieter Zimmermann
@mail_D.Zimmermann@akemi.de
- Emergency telephone number: 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.

2 Hazards identification

Classification of the substance or mixture

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



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC



C; Corrosive

R34: Causes burns.

- Information concerning particular hazards for human and environment:

Acid burns have to be treated immediately, as it may otherwise cause badly curing wounds.

Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided.

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Label elements

- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS05

- Signal word

Danger

- Hazard-determining components of labelling:

Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides

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- Hazard statements H314 Causes severe skin burns and eye damage.
- Precautionary statements
 - P101 If medical advice is needed, have product container or label at hand.
 - P102 Keep out of reach of children.
 - P103 Read label before use.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection.
 - P260 Do not breathe mist/vapours/spray.
 - P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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+P313 IF exposed or concerned: Get medical advice/attention.
 - P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 - P405 Store locked up.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazards**
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients· **Chemical characterization: Mixtures**

- Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

preservation agents  C R34;  Xn R21/22;  N R50  Skin Corr. 1B, H314;  Aquatic Acute 1, H400;  Acute Tox. 4, H302; Acute Tox. 4, H312	12.5-25 %
non-ionic surfactants  Xn R22;  Xi R41  Eye Dam. 1, H318;  Acute Tox. 4, H302	1-5 %
· <u>Regulation (EC) No 648/2004 on detergents / Labelling for contents</u>	
BENZALKONIUM CHLORIDE	15 - 30%
non-ionic surfactants	< 5%

- Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures· **Description of first aid measures**

- General information: Take affected persons out into the fresh air.
Position and transport stably in side position.
Immediately remove any clothing soiled by the product.
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

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- Information for doctor:
 - Most important symptoms and effects, both acute and delayed
 - Indication of any immediate medical attention and special treatment needed
- No further relevant information available.
- If swallowed, gastric irrigation with added, activated carbon.

5 Firefighting measures

- **Extinguishing media**
 - Suitable extinguishing agents:
 - **Special hazards arising from the substance or mixture**
 - **Advice for firefighters**
 - Protective equipment:
 - **Additional information**
- Use fire extinguishing methods suitable to surrounding conditions.
- Formation of toxic gases is possible during heating or in case of fire. In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Hydrogen cyanide (HCN)
Carbon monoxide (CO)
- Do not inhale explosion gases or combustion gases.
Wear self-contained respiratory protective device.
Wear fully protective suit.
- Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - **Environmental precautions:**
 - **Methods and material for containment and cleaning up:**
 - **Reference to other sections**
- Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
- 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.
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
 - Precautions for safe handling
 - Information about fire - and explosion protection:
- Keep receptacles tightly sealed.
Avoid splashes or spray in enclosed areas.
Ensure good ventilation/exhaustion at the workplace.
- No special measures required.

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· Conditions for safe storage, including any incompatibilities

- Storage:
- Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.
- Information about storage in one common storage facility: Store away from oxidizing agents.
Store away from foodstuffs.
- Further information about storage conditions: Keep container tightly sealed.
- **· Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **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.
- Additional information: The lists valid during the making were used as basis.
- **Exposure controls**
- Personal protective equipment:
- General protective and hygienic measures: Do not eat, drink, smoke or sniff while working.
Use skin protection cream for skin protection.
Clean skin thoroughly immediately after handling the product.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
- Respiratory protection: Use suitable respiratory protective device only when aerosol or mist is formed.
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.
- Protection of hands: Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.
Akemi skin protection agent recommendation for preventive skin shelter without use of protective gloves:
STOKODERM (<http://www.stoko.com>)
Akemi skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
STOKO EMULSION (<http://www.stoko.com>)
Akemi skin protection recommendation for skin cleaning after product handling:
FRAPANTOL (<http://www.stoko.com>)
Akemi 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 analyses 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

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protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).

**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

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 materialValue for the permeation: Level \geq 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:

Butyl rubber, BR

Butoject (KCL, Art No. 897, 898)

Nitrile rubber, NBR

Camatril (KCL, Art No. 730, 731, 732, 733)

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

Butyl rubber, BR

Butoject (KCL, Art No. 897, 898)

Nitrile rubber, NBR

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

· Not suitable are gloves made of the following materials:

Leather gloves

Strong material gloves

· Eye protection:**Tightly sealed goggles**· Body protection:

Protective work clothing

9 Physical and chemical properties· **Information on basic physical and chemical properties**· General Information· Appearance:

Form:

Fluid

Colour:

Colourless

· Odour:

Characteristic

· pH-value at 20 °C:

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· Change in conditionMelting point/Melting range:

Undetermined.

Boiling point/Boiling range:

100 °C

· Flash point:

200 °C

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· <u>Self-igniting:</u>	Product is not selfigniting.
· <u>Danger of explosion:</u>	Product does not present an explosion hazard.
· <u>Vapour pressure at 20 °C:</u>	23 hPa
· <u>Density at 20 °C:</u>	1 g/cm ³
· <u>Solubility in / Miscibility with water:</u>	Fully miscible.
· <u>Viscosity:</u>	
<u>Dynamic:</u>	Not determined.
<u>Kinematic at 20 °C:</u>	11 s (DIN 53211/4)
· <u>Solvent content:</u>	
<u>Organic solvents:</u>	0.0 %
<u>Water:</u>	75.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** Reacts with strong oxidizing agents.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide
Ammonia
Nitrogen oxides (NOx)
Possible in traces.

11 Toxicological information· **Information on toxicological effects**

· Acute toxicity:

· LD/LC50 values relevant for classification:

63449-41-2 Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides

Oral	LD50	600 mg/kg (rat)
Dermal	LD50	1560 mg/kg (rat)

- Primary irritant effect:
- on the skin: Caustic effect on skin and mucous membranes.
- on the eye: Strong caustic effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information: The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Corrosive
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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12 Ecological information

· Toxicity

· Aquatic toxicity:

63449-41-2 Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides

EC10	1-10 mg/l (BES)
EC50/48h	< 1 mg/l (daphnia magna)
EC50/72h	<1 mg/l (Selenastrum capricornutum)
LC50/96h	<1 mg/l (Oncorhynchus mykiss)

· **Persistence and degradability** No further relevant information available.

· Behaviour in environmental systems:

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· Additional ecological information:

· **General notes:** Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· **Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

20 00 00	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01 00	separately collected fractions (except 15 01)
20 01 29*	detergents containing dangerous substances

· Uncleaned packaging:

· **Recommendation:** Disposal must be made according to official regulations.

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

14 Transport information

· UN-Number

· ADR, ADN, IMDG, IATA Void

· UN proper shipping name

· ADR, ADN, IMDG, IATA Void

· Transport hazard class(es)

· ADR, ADN, IMDG, IATA

· **Class** Void

· Packing group

· ADR, IMDG, IATA Void

· Environmental hazards:

· **Marine pollutant:** No

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- | | |
|--|--|
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Information about limitation of use:** Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

- **Relevant phrases**
 - H302 Harmful if swallowed.
 - H312 Harmful in contact with skin.
 - H314 Causes severe skin burns and eye damage.
 - H318 Causes serious eye damage.
 - H400 Very toxic to aquatic life.
 - R21/22 Harmful in contact with skin and if swallowed.
 - R22 Harmful if swallowed.
 - R34 Causes burns.
 - R41 Risk of serious damage to eyes.
 - R50 Very toxic to aquatic organisms.
- **Recommended restriction of use** refer to Technical Data Sheet (TDS)
- **Department issuing MSDS:** Laboratory
- **Contact:** Dieter Zimmermann
Elke Hake
Fon ++49 (0)911 64296-59
@mail E.Hake@akemi.de
- **Abbreviations and acronyms:** RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
ADR: Accord européen sur le transport 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 Harmonized System of Classification and Labelling of Chemicals
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
- *** Data compared to the previous version altered.** Adaptation in accordance with REACH directive 1907/2006/EC