

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/20/2014

Reviewed on 01/20/2014

1 Identification

· 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 mixture

Biocide
Cleaning agent/ Cleaner

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH Tel. +49(0)911-642960
Lechstrasse 28 Fax. +49(0)911-644456
D 90451 Nürnberg e-mail info@akemi.de

· Information department: 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 Hazard(s) identification

· Classification of the substance or mixture



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



Corrosive

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 was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS05

· Signal word

Danger

· Hazard-determining components of labeling:

Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides
H314 Causes severe skin burns and eye damage.

· Hazard statements

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- 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.
 - P405 Store locked up.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
- NFPA ratings (scale 0 - 4)



- HMIS-ratings (scale 0 - 4)



- **Other hazards**
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

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

· Dangerous components:

preservation agents C R34; Xn R21/22; N R50 Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312	12.5-25%
non-ionic surfactants Xn R22; Xi R41 Eye Dam. 1, H318	1-5%

- 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 on side. 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 copious amounts of water and provide fresh air. Immediately call a doctor.

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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 Fire-fighting measures

- **Extinguishing media**
 - Suitable extinguishing agents:
 - **Special hazards arising from the substance or mixture**
 - **Advice for firefighters**
 - Protective equipment:
 - **Additional information**
- Use fire fighting measures that suit the environment.
- Formation of toxic gases is possible during heating or in case of fire. In case of fire, the following can be released:
Nitrogen oxides (NOx)
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 protection against explosions and fires:
- 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 receptacle tightly sealed.
- Storage class: 8 A
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:**

No further data; see item 7.

· **Control parameters**

· Components 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 that were valid during the creation 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.

· Breathing equipment:

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 respiratory protective device that is independent of circulating air.

· 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

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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>).



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 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:

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 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
Color:	Colorless
· Odor:	Characteristic

· pH-value at 20 °C (68 °F): 7

· Change in condition

Melting point/Melting range: Undetermined.

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<u>Boiling point/Boiling range:</u>	100 °C (212 °F)
· <u>Flash point:</u>	200 °C (392 °F)
· <u>Auto igniting:</u>	Product is not selfigniting.
· <u>Danger of explosion:</u>	Product does not present an explosion hazard.
· <u>Vapor pressure at 20 °C (68 °F):</u>	23 hPa (17 mm Hg)
· <u>Density at 20 °C (68 °F):</u>	1 g/cm ³ (8.345 lbs/gal)
· <u>Specific gravity at 20 °C (68 °F):</u>	1 g/cm ³ (8.345 lbs/gal)
· <u>Solubility in / Miscibility with Water:</u>	Fully miscible.
· <u>Viscosity:</u>	
<u>Dynamic:</u>	Not determined.
<u>Kinematic at 20 °C (68 °F):</u>	11 s (DIN 53211/4)
· <u>Solvent content:</u>	
<u>Organic solvents:</u>	0.0 %
<u>Water:</u>	75.0 %
<u>Solids content:</u>	25.0 %
· <u>Other information</u>	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 that are 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 internally approved calculation methods for preparations:

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Corrosive
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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.
- **Behavior 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 (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 of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

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

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

14 Transport information

· **UN-Number**

· **DOT, ADR, ADN, IMDG, IATA** Void

· **UN proper shipping name**

· **DOT, ADR, ADN, IMDG, IATA** Void

· **Transport hazard class(es)**

· **DOT, ADR, ADN, IMDG, IATA**

· **Class** Void

· **Packing group**

· **DOT, ADR, IMDG, IATA** Void

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· Environmental hazards:	
· Marine pollutant:	No
· 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

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

63449-41-2	Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides
7732-18-5	water, distilled, conductivity or of similarpurity

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS05

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- Signal word Danger
- Hazard-determining components of labeling: Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides
- 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.
 - P405 Store locked up.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- National regulations:
- Information about limitation of use: Employment restrictions concerning young persons must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
- Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- VOC USA 0.0 g/l
- 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.

- Department issuing MSDS: Laboratory
- Contact: Dieter Zimmermann
Elke Hake
Fon ++49 (0)911 64296-59
@mail E.Hake@akemi.de
- Date of preparation / last revision 01/20/2014 / -
- 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
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - ACGIH: American Conference of Governmental Industrial Hygienists
 - 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)
 - NFPA: National Fire Protection Association (USA)
 - HMIS: Hazardous Materials Identification System (USA)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent

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