

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.06.2018

Version number 3

Revision: 28.06.2018

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

1.1 Product identifier

Trade name: **Urine Scale and Limescale Remover**

Article number: 11980, 11982

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

No further relevant information available.

Application of the substance / the mixture

Cleaning agent/ Cleaner

1.3 Details of the supplier of the safety data sheet

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

Further information obtainable from:

Laboratory

1.4 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.
+44 (171) 635 91 91
National Poison Inform. Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER

SECTION 2: Hazards identification

2.1 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.

Eye Dam. 1 H318 Causes serious eye damage.

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



GHS05

Signal word

Danger

Hazard-determining components of labelling:

phosphoric acid

Alcohols, C13-C15 branched and linear, ethoxylated

H314 Causes severe skin burns and eye damage.

Hazard statements

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.

P260

Do not breathe mist/vapours/spray.

P280

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

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.06.2018

Version number 3

Revision: 28.06.2018

Trade name: Urine Scale and Limescale Remover

(Contd. of page 1)

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].
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.





2.3 Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Chemical characterisation: Mixtures**

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

· Dangerous components:

	non-ionic surfactants  Eye Dam. 1, H318  Acute Tox. 4, H302 Aquatic Chronic 3, H412	1-5%
CAS: 7664-38-2 EINECS: 231-633-2 Index number: 015-011-00-6 Reg.nr.: 01-2119485924-24	phosphoric acid  Met. Corr. 1, H290; Skin Corr. 1B, H314  Acute Tox. 4, H302	25-50%

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

non-ionic surfactants, perfumes

<5%

- 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.
- After inhalation: Supply fresh air.
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- 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.

4.2 Most important symptoms and effects, both acute and delayed

- Information for doctor:

Gastric or intestinal disorders

Acidosis

Symptoms in intoxication with acids:

In case of oral intake symptoms depend on concentration and acidity of incorporated acid, and are corrosive eschar in mouth and throat, vomiting, severe dysphagia, shock and coma. Therapy measures: drink plenty of water. Administer 20 g Magnesia usta in milk oral; no hydrogen carbonate oral; pain relief measures; in indication of acidosis infusion of sodium hydrogencarbonate solution(5%).

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.06.2018

Version number 3

Revision: 28.06.2018

Trade name: Urine Scale and Limescale Remover

(Contd. of page 2)

- **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

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** No further relevant information available.
- **5.3 Advice for firefighters**
- Protective equipment: No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Particular danger of slipping on leaked/spilled product. Wear protective equipment. Keep unprotected persons away.
- **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. 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). Use neutralising agent. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.
- **6.4 Reference to other sections** 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** Keep receptacles tightly sealed. Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
- Information about fire - and explosion protection: No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Protect from frost. Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.06.2018

Version number 3

Revision: 28.06.2018

Trade name: Urine Scale and Limescale Remover

(Contd. of page 3)

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

7664-38-2 phosphoric acid

WEL	Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³
-----	---

· DNELs

7664-38-2 phosphoric acid

Inhalative	DNEL (Langzeit-wiederholt)	2.92 mg/m ³ Air (ARB) 0.73 mg/m ³ Air (BEV)
------------	----------------------------	--

· Additional information: The lists valid during the making were used as basis.

8.2 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:

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

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.06.2018

Version number 3

Revision: 28.06.2018

Trade name: Urine Scale and Limescale Remover

(Contd. of page 4)

**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

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 \leq 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)
Fluorocarbon rubber (Viton)
Vitoject (KCL, Art_No. 890)
Chloroprene rubber, CR
Camapren (KCL, Art_No. 720, 722, 726)

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

Nitrile rubber, NBR
Camatril (KCL, 730, 731, 732, 733)
Chloroprene rubber, CR
Camapren (KCL, Art_No. 720, 722, 726)

- Not suitable are gloves made of the following materials:

Leather gloves
Strong material gloves

- Eye 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

- Appearance:

Form:

Fluid

Colour:

Yellow-brown

- Odour:

Characteristic

- pH-value at 20 °C:

<1

(Contd. on page 6)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.06.2018

Version number 3

Revision: 28.06.2018

Trade name: Urine Scale and Limescale Remover

(Contd. of page 5)

· <u>Change in condition</u> Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	100 °C
· <u>Flash point:</u>	Not applicable.
· <u>Auto-ignition temperature:</u>	Product is not selfigniting.
· <u>Explosive properties:</u>	Product does not present an explosion hazard.
· <u>Vapour pressure at 20 °C:</u>	23 hPa
· <u>Density at 20 °C:</u>	1.24 g/cm ³
· <u>Solubility in / Miscibility with water:</u>	Not miscible or difficult to mix.
· <u>Viscosity:</u> Dynamic:	Not determined.
Kinematic at 20 °C:	11 s (DIN 53211/4)
· <u>Solvent content:</u> Organic solvents:	0.0 %
Water:	60.3 %
· Solids content:	39.6 %
· 9.2 Other information	No further relevant information available.

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 alkali and metals.
 - Reacts with strong oxidising agents.
 - Reacts with metals forming hydrogen.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
 - Phosphorus oxides (e.g. P₂O₅)
 - Irritant gases/vapours

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:**ATE (Acute Toxicity Estimates)**

Oral	LD50	2,934-3,218 mg/kg (rat)
------	------	-------------------------

7664-38-2 phosphoric acid

Oral	LD50	1,250 mg/kg (rat)
	NOAEL	≥410 mg/kg (rat)
Dermal	LD50	2,740 mg/kg (rabbit)
Inhalative	LC50/1h	1.69 mg/l (rat)

- Primary irritant effect:
- Skin corrosion/irritation Causes severe skin burns and eye damage.
- Serious eye damage/irritation Causes serious eye damage.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.06.2018

Version number 3

Revision: 28.06.2018

Trade name: Urine Scale and Limescale Remover

(Contd. of page 6)

- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- 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.

SECTION 12: Ecological information**12.1 Toxicity**

- Aquatic toxicity:

7664-38-2 phosphoric acid

EC50	270 mg/l (BES) 270 mg/l (bacteria)
EC50/48h	>100 mg/l (daphnia magna)
EC50/72h	>100 mg/l (Desmodesmus subspicatus)
LC50/96h	138 mg/l (Gambusia affinis) 98-106 mg/l (Iem) 3-3.25 mg/l (Iepomis macrochirus)

- **12.2 Persistence and degradability**

No further relevant information available.

- **12.3 Bioaccumulative potential**

No further relevant information available.

- **12.4 Mobility in soil**

No further relevant information available.

- Additional ecological information:

- General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

- **12.5 Results of PBT and vPvB assessment**

- PBT: Not applicable.

- vPvB: Not applicable.

- **12.6 Other adverse effects**

No further relevant information available.

SECTION 13: Disposal considerations**13.1 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 hazardous substances

(Contd. on page 8)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.06.2018

Version number 3

Revision: 28.06.2018

Trade name: Urine Scale and Limescale Remover

(Contd. of page 7)

- Uncleaned packaging:
- Recommendation: Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

SECTION 14: Transport information

- **14.1 UN-Number**
- ADR, IMDG, IATA

UN1805

- **14.2 UN proper shipping name**

- ADR
- IMDG, IATA

1805 PHOSPHORIC ACID, SOLUTION
PHOSPHORIC ACID, SOLUTION

- **14.3 Transport hazard class(es)**

- ADR



- Class
- Label

8 (C1) Corrosive substances.
8

- IMDG, IATA



- Class
- Label

8 Corrosive substances.
8

- **14.4 Packing group**

- ADR, IMDG, IATA

III

- **14.5 Environmental hazards:**

- Marine pollutant:

No

- **14.6 Special precautions for user**

- Danger code (Kemler):
- EMS Number:
- Segregation groups
- Stowage Category

Warning: Corrosive substances.
80
F-A,S-B
Acids
A

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

- Transport/Additional information:

- ADR
- Limited quantities (LQ)
- Excepted quantities (EQ)

5L
Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

- Transport category
- Tunnel restriction code

3
E

- IMDG
- Limited quantities (LQ)

5L

(Contd. on page 9)

