

1 Identification of the substance/mixture and of the company/undertaking**· Product identifier**

- Trade name: **Impregnation Remover**
- Article number: 12003, 12004
- Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- Application of the substance / the preparation 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
- 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 Hazards identification**· Classification of the substance or mixture**

GHS05 Corrosion

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

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

Corrosive

Causes severe burns.

· Information concerning particular hazards for human and environment:

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**· Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

· Code letter and hazard designation of product:

C Corrosive

· Hazard-determining components of labelling:

sodium hydroxide

· Risk phrases:

Causes severe burns.

· Safety phrases:

Keep locked up and out of the reach of children.
Do not breathe vapour/spray.
Avoid contact with skin and eyes.

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In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
Wear suitable protective clothing, gloves and eye/face protection.
In case of accident or if you feel unwell, seek medical advice immediately.

- **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

- **Chemical characterization: Mixtures**
- Description: Mixture: consisting of the following components.

- Dangerous components:

	non-ionic surfactants ☒ Xi R41 ☞ Eye Dam. 1, H318	1-5%
CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00-6	sodium hydroxide ☒ C R35 ☞ Met. Corr.1, H290; Skin Corr. 1A, H314	<12.5%
CAS: 3332-27-2 EINECS: 222-059-3	Tetradecyldimethylaminoxid ☒ Xi R38-41; ☒ N R50 ☞ Eye Dam. 1, H318; ☞ Aquatic Acute 1, H400; ☠ Skin Irrit. 2, H315	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: 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: 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.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

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5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
- **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.
- **Methods and material for containment and cleaning up:** 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.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **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 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.

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Control parameters

Components with limit values that require monitoring at the workplace:

1310-73-2 sodium hydroxide

PEL	2 mg/m ³
REL	Short-term value: C 2 mg/m ³
TLV	Short-term value: C 2 mg/m ³

Additional information:

The lists that were valid during the creation were used as basis.

Exposure controls

- Personal protective equipment:
- General protective and hygienic measures:

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.
Not necessary if room is well-ventilated.

Breathing equipment:

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
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>).

Material of gloves

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

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

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

Butoject (KCL, Art No. 897, 898)
Butyl rubber, BR

Not suitable are gloves made of the following materials:

Nitrile rubber, NBR

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· Eye protection:

Tightly sealed goggles

· Body protection:

Impervious protective clothing

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

· <u>Form:</u>	Fluid
· <u>Color:</u>	Cloudy
· <u>Odor:</u>	Mild
· <u>Odour threshold:</u>	Not determined.

· pH-value at 20 °C (68 °F): 14· Change in condition

· <u>Melting point/Melting range:</u>	Undetermined.
· <u>Boiling point/Boiling range:</u>	Undetermined.

· Flash point: Not applicable.· Flammability (solid, gaseous): Not applicable.· Ignition temperature:· Decomposition temperature: Not determined.· Auto igniting: Product is not selfigniting.· Danger of explosion: Product does not present an explosion hazard.· Explosion limits:

· <u>Lower:</u>	Not determined.
· <u>Upper:</u>	Not determined.

· Vapor pressure at 20 °C (68 °F): 23 hPa (17 mm Hg)· Density at 20 °C (68 °F): 1.12 g/cm³ (9.346 lbs/gal)· Specific gravity at 20 °C (68 °F): 1.12 g/cm³ (9.346 lbs/gal)· Relative density Not determined.· Vapour density Not determined.· Evaporation rate Not determined.· Solubility in / Miscibility with· Water: Fully miscible.· Partition coefficient (n-octanol/water): Not determined.· Viscosity:

· <u>Dynamic:</u>	Not determined.
· <u>Kinematic:</u>	Not determined.

· Solvent content:

· <u>Organic solvents:</u>	0.0 %
· <u>Water:</u>	86.4 %

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

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10 Stability and reactivity

- **Reactivity**
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

 · **Information on toxicological effects**

 · Acute toxicity:

 · LD/LC50 values that are relevant for classification:
1310-73-2 sodium hydroxide

Oral LD50 2000 mg/kg (rat)

 · Primary irritant effect:

 · on the skin: Strong 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:

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:
1310-73-2 sodium hydroxide

EC50/15min 22 mg/l (Photobac. phosphoreum)

EC50/24h 76 mg/l (daphnia magna)

LC50/96h 125 mg/l (Gambusia affinis)

 · **Persistence and degradability** biodegradable

 · **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 1 (Self-assessment): slightly hazardous for water

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

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- product the aqueous waste, emptied into drains, is only low water-dangerous.
- **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, IMDG, IATA: UN1719
- **UN proper shipping name**
- DOT, IMDG, IATA: CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE)
- ADR: 1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE)

· **Transport hazard class(es)**

· DOT



- Class: 8 Corrosive substances.
- Label: 8

· ADR



- Class: 8 (C5) Corrosive substances
- Label: 8

· IMDG, IATA



- Class: 8 Corrosive substances.
- Label: 8

· **Packing group**

- DOT, ADR, IMDG, IATA: II

· **Environmental hazards:**

- Marine pollutant: No

· **Special precautions for user**

- Danger code (Kemler): Warning: Corrosive substances

- Danger code (Kemler): 80

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· EMS Number:	F-A,S-B
· Segregation groups	Alkalis
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	to handle similar to packing group II
· DOT	
· Remarks:	to handle similar to packing group II
· ADR	
· Remarks:	to handle similar to packing group II
· IMDG	
· Remarks:	to handle similar to packing group II
· IATA	
· Remarks:	to handle similar to packing group II
· UN "Model Regulation":	UN1719, CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE), 8, II

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):

All ingredients are listed.

· 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.

· Carcinogenicity 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.

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 · OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

 · Product related hazard informations:

The product has been classified and marked in accordance with directives on hazardous materials.

 · Hazard symbols:


C Corrosive

 · Hazard-determining components of labelling:

sodium hydroxide

 · Risk phrases:

Causes severe burns.

 · Safety phrases:

Keep locked up and out of the reach of children.
 Do not breathe vapour/spray.
 Avoid contact with skin and eyes.
 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
 Wear suitable protective clothing, gloves and eye/face protection.
 In case of accident or if you feel unwell, seek medical advice immediately.

 · National regulations:

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

 · Water hazard class: Water hazard class 1 (Self-assessment): slightly 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

 · **Abbreviations and acronyms:**

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
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent