

Material Safety Data Sheet  
According to 91/155 EC

Printing date 20.11.2002

Reviewed on 20.11.2002

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**1 Identification of substance**

- Product details:
- Trade name: ALTO Combi Active
- Manufacturer/Supplier:  
ALTO Deutschland GmbH  
Guido-Oberdorfer-Straße 2-8                      Telefon: +49 7306/72-0  
D - 89287 Bellenberg                              Telefax: +49 7306/72-316
- Informing department: Department cleaning and care agents
- Emergency information:  
National Poisons  
Information Service (L)  
Medical Toxicology Unit  
Avonley Road  
Tel:0171/635 91 91  
Fax:0171/771 53 09

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**2 Composition/Data on components**

- Chemical characterization
- Description:  
Mixture of the substances listed below with harmless additions.  
  
Dangerous components:  
1310-58-3 potassium hydroxide                      5-15 %  
C; R 22-35  
EINECS: 215-181-3  
  
10213-79-3 Disodium metasilicate, Pentahydrate                      1-5 %  
C; R 34
- Additional information  
For the wording of the listed risk phrases refer to section 16.

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**3 Hazards identification**

- Hazard designation: C Corrosive
- Information pertaining to particular dangers for man 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.  
R 35 Causes severe burns.
- Classification system  
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

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**4 First aid measures**

- General information  
Instantly remove any clothing soiled by the product.
- After inhalation  
In case of unconsciousness bring patient into stable side position for transport.

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- After skin contact  
Instantly wash with water and soap and rinse thoroughly.  
Instantly rinse with water.
- After eye contact  
Rinse opened eye for several minutes under running water. Then consult doctor.
- After swallowing  
Drink copious amounts of water and provide fresh air. Instantly call for doctor.

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**5 Fire fighting measures**

- Suitable extinguishing agents  
CO<sub>2</sub>, extinguishing powder or water spray jet with softener additives or with alcohol-resistant foam.
- Protective equipment: No special measures required.

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**6 Accidental release measures**

- Person-related safety precautions: see point 8.  
Wear protective equipment. Keep unprotected persons away.
- Measures for environmental protection: Dilute with much water.
- Measures for cleaning/collecting:  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.

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**7 Handling and storage**

- Handling
- Information for safe handling: No special measures required.
- Information about protection against explosions and fires:  
No special measures required.
- Storage
- Requirements to be met by storerooms and containers:  
No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions:  
Keep container tightly sealed.
- Storage class
- Class according to regulation on inflammable liquids: Void

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**8 Exposure controls and personal protection**

Components with limit values that require monitoring at the workplace:  
1310-58-3 potassium hydroxide (5-15%)  
OES: Short-term value: 2 mg/m<sup>3</sup>

- Personal protective equipment
  - General protective and hygienic measures  
Keep away from foodstuffs, beverages and food.  
Take off immediately all contaminated clothing  
Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.
  - Breathing equipment: Not required.
  - Protection of hands:  
Protective gloves.  
The glove material has to be impermeable and resistant to the product/
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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

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.

- Eye protection: Tightly sealed safety glasses.

### 9 Physical and chemical properties

- General Information

- Form: Fluid

- Colour: transparent

- Odour: Product specific

	Value/Range	Unit	Method
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- Change in condition

- Melting point/Melting range: Not determined

- Boiling point/Boiling range: Not determined

- Flash point: Not applicable

- Self-inflammability: Product is not selfigniting.

- Danger of explosion: Product is not explosive.

- Vapour pressure:	at 20 ° C	23.0	hPa
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- Density	at 20 ° C	1.080	g/cm <sup>3</sup>
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- Solubility in / Miscibility with

- Water: Fully miscible

- pH-value:	(10 g/l) at 20 ° C	13.0	
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### 10 Stability and reactivity

- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- Dangerous reactions No dangerous reactions known

- Dangerous products of decomposition:

No dangerous decomposition products known

### 11 Toxicological information

- Acute toxicity:

LD/LC50 values that are relevant for classification:

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1310-58-3 potassium hydroxide

Oral: LD50: 365 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 effect known.
- Additional toxicological information:  
The product shows the following dangers according to the calculation method of the General EC 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.

**12 Ecological information**

- General notes:  
The tensides are biologically degradable according to the German Detergents Legislation( Organisation for Economic Cooperation and Development)  
The produkt is free from halogenorganic compounds(AOX), trisodiumhydrogennitrilotriacetate, edetic acid and phosphates  
Automatic separation from oil in waste water in conjunction with highly volatile separator tested in accordance with the Austria Standarts Institute ( 5105 )  
Must not reach sewage water or drainage ditch undiluted or unneutralized.  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

**13 Disposal considerations**

- Product:
- 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 cleaning agent: Water, if necessary with cleaning agent.

**14 Transport information**

- Land transport ADR/RID (cross-border)
- ADR/RID Class: 8 (C5) Corrosive substances.
- Kemler Number: 80
- UN-Number: 3266
- Packaging group: II
- Label: 8
- Designation of goods: 3266 CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE)
- Maritime transport IMDG:
- IMDG Class: 8
- UN Number: 3266
- Label: 8
- Packaging group: II
- EMS Number: 8-15
- Marine pollutant: n.a.  
No

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- Correct technical name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
(POTASSIUM HYDROXIDE)
- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: 8
- UN/ID Number: 3266
- Label: 8
- Packaging group: II
- Correct technical name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.  
(POTASSIUM HYDROXIDE)

**15 Regulatory information**

- Designation according to EC guidelines:  
The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)
- Code letter and hazard designation of product: C Corrosive
- Hazard-determining components of labelling: potassium hydroxide
- Risk phrases: 35 Causes severe burns.
- Safety phrases:
  - 1/2 Keep locked up and out of the reach of children.
  - 20 When using do not eat or drink.
  - 25 Avoid contact with eyes.
  - 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  - 27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
  - 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- National regulations
- Classification according to VbF: Void
- Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

**16 Other information**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant R-phrases
  - 22 Harmful if swallowed.
  - 34 Causes burns.
  - 35 Causes severe burns.
  - 36 Irritating to eyes.
  - 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Department issuing data specification sheet:  
Department cleaning and care agents