

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

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

1.1. Product identifier

Trade name/designation:

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Additional information:

Restricted to professional users.

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

Use of the substance/mixture:

Washing and cleaning products

Relevant identified uses:

Life cycle stage [LCS]

PW: Widespread use by professional workers

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

MEIKO Maschinenbau GmbH&Co.KG

Englerstrasse 3

77652 Offenburg

Germany

Telephone: +49(0)781/203-0

E-mail: meikolon@meiko.de

Website: www.meiko.de

1.4. Emergency telephone number

Vergiftungs-Informations-Zentrale Freiburg, 24h: +49(0)76119240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]-:

Hazard classes and hazard categories	Hazard statements	Classification procedure
Corrosive to metals (<i>Met. Corr. 1</i>)	H290: May be corrosive to metals.	
Skin corrosion/irritation (<i>Skin Corr. 1</i>)	H314: Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation (<i>Eye Dam. 1</i>)	H318: Causes serious eye damage.	

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



GHS05
Corrosion

Signal word: Danger

Hazard components for labelling:

potassium hydroxide

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hazard statements for physical hazards

H290	May be corrosive to metals.
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hazard statements for health hazards

H314	Causes severe skin burns and eye damage.
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Supplemental hazard information: -

Precautionary Statements Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection.
------	--

Precautionary Statements Response

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.
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P310	Immediately call a POISON CENTER/doctor/....
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2.3. Other hazards

No data available

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 1310-58-3 EC No.: 215-181-3 INDEX No.: 019-002-00-8 REACH No.: 01-2119487136-33	potassium hydroxide Acute Tox. 4, Skin Corr. 1A   Danger H302-H314	5 – 25 weight-%

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended. Warning First aider: Pay attention to self-protection!

Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. Get immediate medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention.

After eye contact:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion:

Rinse mouth. Let water be drunken in little sips (dilution effect). Get medical advice/attention if you feel unwell. Rinse mouth immediately and drink plenty of water-. Do NOT induce vomiting. Get immediate medical advice/attention.

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Self-protection of the first aider:

Use personal protection equipment.

4.2. Most important symptoms and effects, both acute and delayed

Skin corrosion/irritation Serious eye damage/eye irritation

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Co-ordinate fire-fighting measures to the fire surroundings.

Water

Carbon dioxide (CO₂)

Extinguishing powder

Unsuitable extinguishing media:

Strong water jet

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

Hazardous combustion products:

Carbon monoxide

Carbon dioxide (CO₂)

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water-.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Remove persons to safety.

Protective equipment:

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

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment:

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up:

Water

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

6.5. Additional information

Use appropriate container to avoid environmental contamination.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8).

Fire prevent measures:

No special measures are necessary.

Advices on general occupational hygiene

When using do not eat, drink or smoke. Avoid contact with eyes and skin.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed.

Storage class: 8B - Non-combustible corrosive substances

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

No data available

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
potassium hydroxide CAS No.: 1310-58-3	1 mg/m ³	① DNEL worker ② inhalative, long-term, local

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No data available

8.2.2. Personal protection equipment



Eye/face protection:

Eye glasses with side protection DIN EN 166

Skin protection:

Tested protective gloves must be worn EN ISO 374 Suitable material: NBR (Nitrile rubber) >0,2mm Breakthrough time (maximum wearing time) 480min In the case of wanting to use the gloves again, clean them before taking off and air them well. Breakthrough times and swelling properties of the material must be taken into consideration.

8.2.3. Environmental exposure controls

No data available

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: colourless

Odour: odourless

Safety relevant basis data

parameter		at °C	Method	Remark
pH	14	20 °C		
Melting point	not determined			
Freezing point	not determined			
Initial boiling point and boiling range	> 90 °C			
Decomposition temperature	not determined			
Flash point	not applicable			
Evaporation rate	not determined			
Auto-ignition temperature	not determined			
Upper/lower flammability or explosive limits	not applicable			
Vapour pressure	not determined			
Vapour density	not determined			
Density	≈ 1.2 g/cm ³	20 °C		
Bulk density	not determined			
Water solubility	completely miscible	20 °C		
Partition coefficient: n-octanol/water	not determined			
Dynamic viscosity	not determined			
Kinematic viscosity	not determined	40 °C		

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

May be corrosive to metals. The product itself does not burn.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Slowly corrodes aluminium and zinc under hydrogen evolution.

10.5. Incompatible materials

Exothermic reaction with: Acid

10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
1310-58-3	potassium hydroxide	LD₅₀ oral: =273 mg/kg (Rat)

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Acute oral toxicity:

Based on available data, the classification criteria are not met.

Acute dermal toxicity:

Based on available data, the classification criteria are not met.

Acute inhalation toxicity:

Based on available data, the classification criteria are not met.

Skin corrosion/irritation:

Causes severe burns.

Serious eye damage/irritation:

Causes serious eye damage.

Respiratory or skin sensitisation:

Based on available data, the classification criteria are not met.

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.

Additional information:

No data available

SECTION 12: Ecological information

12.1. Toxicity

CAS No.	Substance name	Toxicological information
1310-58-3	potassium hydroxide	LC₅₀ : =80 mg/l 4 d (fish-, Gambusia affinis (Mosquito fish-)) NOEC : =56 mg/l 4 d (fish-, Gambusia affinis (Mosquito fish-))

12.2. Persistence and degradability

CAS No.	Substance name	Biodegradation	Remark
1310-58-3	potassium hydroxide	not applicable	

12.3. Bioaccumulative potential

CAS No.	Substance name	Log K _{OW}	Bioconcentration factor (BCF)
1310-58-3	potassium hydroxide	-3.88	

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
1310-58-3	potassium hydroxide	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

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12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

20 01 29 *	Detergents containing hazardous substances
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*: Evidence for disposal must be provided.

Waste code packaging:

15 01 10 *	packaging containing residues of or contaminated by dangerous substances
------------	--

*: Evidence for disposal must be provided.

Waste treatment options





Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA- DGR)
14.1. UN-No.			
UN 1814	UN 1814	UN 1814	UN 1814
14.2. UN proper shipping name			
POTASSIUM HYDRO- XIDE SOLUTION	POTASSIUM HYDRO- XIDE SOLUTION	POTASSIUM HYDRO- XIDE SOLUTION	POTASSIUM HYDRO- XIDE SOLUTION
14.3. Transport hazard class(es)			
 8	 8	 8	 8
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
No	No	No	No

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Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA- DGR)
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14.6. Special precautions for user

Special provisions: Limited quantity (LQ): 1 L Excepted Quantities (EQ): E2 Hazard identification number (Keimler No.): 80 Classification code-: C5 tunnel restriction code-: (E) Remark:	Special provisions: Limited quantity (LQ): 1 L Excepted Quantities (EQ): E2 Classification code-: C5 Remark:	Special provisions: Limited quantity (LQ): 1 L Excepted Quantities (EQ): E2 EmS-No.: F-A, S-B Remark:	Special provisions: Excepted Quantities (EQ): Remark:
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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU legislation

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: This product is not assigned to a hazard category.

Volatile organic compounds (VOC) content in percent by weight: 0%

Regulation (EC) No. 648/2004 (Detergents regulation):

5-15% phosphates

<5% phosphonates

15.1.2. National regulations

[DE] National regulations

Störfallverordnung

for substances contained in the product:

This product is not assigned to a hazard category.

Water hazard class (WGK)

WGK:

1 - schwach wassergefährdend

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

16.1. Indication of changes

1.2.	Relevant identified uses of the substance or mixture and uses advised against
14.6.	Special precautions for user

16.2. Abbreviations and acronyms

No data available

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16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]-:

Hazard classes and hazard categories	Hazard statements	Classification procedure
Corrosive to metals (<i>Met. Corr. 1</i>)	H290: May be corrosive to metals.	
Skin corrosion/irritation (<i>Skin Corr. 1</i>)	H314: Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation (<i>Eye Dam. 1</i>)	H318: Causes serious eye damage.	

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

16.6. Training advice

No data available

16.7. Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

* Data changed compared with the previous version