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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.

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

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 pro- cedure | | |
|--|--|-------------------------------|--|--|
| Corrosive to metals (Met. Corr. 1) | H290: May be corrosive to metals. | | | |
| Skin corrosion/irritation (Skin Corr. 1A) | H314: Causes severe skin burns and eye damage. | | | |
| Serious eye damage/eye irritation (Eye Dam. 1) | H318: Causes serious eye damage. | | | |

2.2. Label elements

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



Signal word: Danger

Hazard components for labelling: potassium hydroxide

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. Supplemental Hazard information (EU): -

| Precautionary sta | 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. | | |
| P310 | Immediately call a POISON CENTER/doctor/ | | |

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] | Concen- tration |
|---|---|--------------------|
| 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 ♦ ① Danger H302-H314 | 5 - 25 Wt % |

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.

After eve 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.

Self-protection of the first aider:

Use personal protection equipment.

4.2. Most important symptoms and effects, both acute and delayed Skin corrosion/irritation



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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

Extinguishing powder

Carbon dioxide (CO2)

Unsuitable extinguishing media:

Strong water jet

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Fire fighting water forms corrosive alkaline solutions - slip hazard!

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 (e.g. 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 $\ensuremath{\mathsf{13}}$

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).

Environmental precautions:

Shafts and sewers must be protected from entry of the product.

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.

Requirements for storage rooms and vessels:

Keep/Store only in original container.

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

| Limit value type (country of origin) | Substance name | long-term occupational exposure limit value short-term occupational exposure limit value Instantaneous value Monitoring and observation processes Remark |
|--|---|--|
| WEL (GB) | potassium hydroxide CAS No.: 1310-58-3 | ② 2 mg/m ³ |

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

| Substance name | DNEL type Exposure route |
|---|---|
| potassium hydroxide CAS No.: 1310-58-3 | DNEL worker 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

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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.

8.2.3. Environmental exposure controls

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid **Odour:** odourless

Colour: colourless

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 determined | | | |
| Vapour pressure | not determined | | | |
| Vapour density | not determined | | | |
| Density | $\approx 1.3 \text{ g/cm}^3$ | 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 substance 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 zink under hydrogen evolution.

* 10.5. Incompatible materials

Exothermic reaction with: Acid

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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) |

Acute oral toxicity:

The classification criteria for this hazard class are not met by definition. Acute dermal toxicity: The classification criteria for this hazard class are not met by definition. Acute inhalation toxicity: The classification criteria for this hazard class are not met by definition. Skin corrosion/irritation: Causes severe burns. Serious eve damage/irritation: Causes serious eye damage. **Respiratory or skin sensitisation:** The classification criteria for this hazard class are not met by definition. Germ cell mutagenicity: The classification criteria for this hazard class are not met by definition. **Carcinogenicity:** The classification criteria for this hazard class are not met by definition. **Reproductive toxicity:** The classification criteria for this hazard class are not met by definition. **STOT-single exposure:** The classification criteria for this hazard class are not met by definition. **STOT-repeated exposure:** The classification criteria for this hazard class are not met by definition. **Aspiration hazard:** The classification criteria for this hazard class are not met by definition. **Additional information:**

No data available

SECTION 12: Ecological information

12.1. Toxicity

| CAS No. | Substance name | Toxicological information |
|-----------|---------------------|--|
| 1310-58-3 | potassium hydroxide | LC ₅₀ : =80 mg/l 4 d (fish-, Gambusia affinis (Mo squito fish-)) NOEC: =56 mg/l 4 d (fish-, Gambusia affinis (Mosquito fish-)) |

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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

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

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

*: 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 shi | pping name | | |
| POTASSIUM HYDRO- XIDE SOLUTION | POTASSIUM HYDRO- XIDE SOLUTION | POTASSIUM HYDRO- XIDE SOLUTION | POTASSIUM HYDRO- XIDE SOLUTION |
| 14.3. Transport haz | ard class(es) | | |
| a a construction of the second | a de la companya de l | a e | A CONTRACTOR OF |
| 8 | 8 | 8 | 8 |
| | | | |



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| Land transport (ADR/RID) | Inland waterway craft (ADN) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA- DGR) | | | |
|---|---|--|---|--|--|--|
| 14.4. Packing group |) | | | | | |
| II | II | II | II | | | |
| 14.5. Environmenta | l hazards | | | | | |
| No | No | No | No | | | |
| 14.6. Special preca | 14.6. Special precautions for user | | | | | |
| Special provisions: Limited quantity (LQ): 1 L Excepted Quantities (EQ): E2 | Special provisions: Excepted Quantitie s (EQ): Classification code-: | Special provisions: Excepted Quantitie s (EQ): EmS-No.: F-A, S-B Remark: | Special provisions: Excepted Quantitie s (EQ): Remark: | | | |
| Hazard identifi- cation number (Kemler No.): 80 Classification code-: | Remark: | | | | | |
| - tunnel restriction code-: (E) Remark: | | | | | | |

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. Regulation (EC) No. 648/2004 (Detergents regulation) 15-30% phosphates

15.1.2. National regulations

No data available

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

| | 7.1. | Precautions for safe handling |
|--|-------|--|
| | 8.1. | Control parameters |
| | 10.4. | Conditions to avoid |
| | 10.5. | Incompatible materials |
| | 14.6. | Special precautions for user |
| | 15.1. | Safety, health and environmental regulations/legislation specific for the substance or mixture |

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16.2. Abbreviations and acronyms

No data available

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 pro- cedure |
|---|--|-------------------------------|
| Corrosive to metals (Met. Corr. 1) | H290: May be corrosive to metals. | |
| Skin corrosion/irritation (Skin Corr. 1A) | H314: Causes severe skin burns and eye damage. | |
| Serious eye damage/eye irritation (Eye Dam. 1) | H318: Causes serious eye damage. | |

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

Hazard statements

| mazara 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

en / GB