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

- Creation date / First edition: 15.02.2012

1.1 Product identifier

- Trade name Two in One

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

- Application of the substance / the preparation 2-component cleaning agents for industrial use.

1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier:
  MKN Maschinenfabrik Kurt Neubauer GmbH & Co.
  Halberstädter Str. 2a
  38300 Wolfenbüttel
  Germany

  Tel.: +49 (0) 5331 89 – 0
  Fax: + 49 (0) 5331 89 280
  www.mkn.eu

  - Informing department:
    Department of Occupational:
    Tel.: +49 (0) 5331 89 - 0
    email qualified Person MSDS: info@csb-online.de

1.4 Emergency telephone number:

(Contd. on page 2)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.2 Label elements

- Classification according to Regulation (EC) No 1272/2008

GHS05 corrosion

Met. Corr. 1  H290 May be corrosive to metals.
Skin Corr. 1A  H314 Causes severe skin burns and eye damage.

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

- Hazard description: C Corrosive

- Information concerning particular hazards for human and environment: 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.

2.2.2 Labelling according to Regulation (EC) No 1272/2008

- Hazard pictograms

GHS05

- Signal word Danger

- Hazard-determining components of labelling:
  sodium hydroxide

- Hazard statements
  H290 May be corrosive to metals.
  H314 Causes severe skin burns and eye damage.

- Precautionary statements
  P280  Wear protective gloves and eye protection.
  P334  Keep only in original container.
  P301+P310  IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Trade name Two in One

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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.
P301+P330+P331 IF SWALLOWED: rinse mouth. DO NOT induce vomiting.

- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- 3.1 Substances
- Identification number(s) 7.127
- 3.2 Mixtures
- Description: 2 phases detergent (cartridge) with an alkaline and an acidic component.

<table>
<thead>
<tr>
<th>CAS: 1310-73-2</th>
<th>sodium hydroxide</th>
<th>50-100%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>CAS: 77-92-9</th>
<th>citric acid</th>
<th>25-50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 201-069-1</td>
<td>Xi R36</td>
<td>Eye Irrit. 2, H319</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 497-19-8</th>
<th>sodium carbonate</th>
<th>2.5-10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 207-838-8</td>
<td>Xi R36</td>
<td>Eye Irrit. 2, H319</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Polymer</th>
<th>Alcohols, C12-18, ethoxylated propoxylated, Methylether</th>
<th>&lt; 2.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Xi R36; N R50</td>
<td>Aquatic Acute 1, H400; Eye Irrit. 2, H319</td>
</tr>
</tbody>
</table>

- Additional information For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- General information Remove any soiled clothing immediately.
- After inhaling
  Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
- After skin contact
  Wash immediately with plenty of water and continue to rinse thoroughly. (Any remains of the caustic soda will only be washed out slowly).
  A check-up at the doctor's is recommended.
- After eye contact
  Rinse opened eye for several minutes under running water.
- After swallowing
  DO NOT induce vomiting! Danger of perforation.
  Administer medicinal carbon
  Call a doctor immediately.

- 4.2 Most important symptoms and effects, both acute and delayed
  No further relevant information available.
- Danger Danger of gastric perforation.
- 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 Use extinguishing measures that are suitable for the surroundings.
- 5.2 Special hazards arising from the substance or mixture
  No further relevant information available.
- 5.3 Advice for firefighters
  No special measures required.
- **Protective equipment**: Wear self-contained breathing apparatus.

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### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
  Wear protective clothing. Keep unprotected people away.
  Product forms slippery surface when combined with water.

- **6.2 Environmental precautions**: Prevent material from reaching sewage system, holes and cellars.

- **6.3 Methods and material for containment and cleaning up:**
  Please use the dust-binding materials
  Dispose of 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 information on disposal.

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### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
  Keep containers tightly sealed.
  Ensure adequate dust removal and prevent formation of dust.

- **7.2 Conditions for safe storage, including any incompatibilities**

  **Storage**
  - **Requirements to be met by storerooms and containers:**
    Store the product in a cool, dry place.
    Protect the product from moisture - keep dry and cool.
    Laws and regulations regarding water hazard class apply.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

- **7.3 Specific end use(s)**
  No further relevant information available.

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### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**

  **Components with critical values that require monitoring at the workplace:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Short-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2 sodium hydroxide</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

- **8.2 Exposure controls**
  **Personal protective equipment**
  Not required for the assembled product.
  Data refer to the bulk.

  **General protective and hygienic measures**
  Keep away from foodstuffs, beverages and fodder.
  Remove any soiled and impregnated clothing immediately.
  Wash hands during breaks and at the end of the work.

  **Breathing equipment**: Not required.

  **Protection of hands**: Protective gloves.

  **Material of gloves**
  Natural rubber, NR
  Recommended thickness of the material: ≥ 0.5 mm

  **Penetration time of glove material**
  The exact penetration time which should be observed can be given by the glove manufacturer.
  The exact penetration time which should be observed can be given by the glove manufacturer.

  **Eye protection**: Tightly sealed protective goggles.
**SECTION 9: Physical and chemical properties**

- **Appearance:**
  - **Form:** Granulate
  - **Colour:** White

- **Smell:** Odorless

- **Odour threshold:** Not determined.

- **Melting point/Melting range:** Not determined

- **Boiling point/Boiling range:** Not determined

- **Flash point:** Not applicable

- **Inflammability (solid, gaseous):** Not determined.

- **Decomposition temperature:** Not determined.

- **Ignition temperature:**

- **Self-inflammability:** Product is not self-igniting.

- **Danger of explosion:** Product is not explosive.

- **Critical values for explosion:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.

- **Steam pressure:** Not applicable.

- **Density:** Not determined

- **Relative density:** Not determined.

- **Vapour density:** Not applicable.

- **Evaporation rate:** Not applicable.

- **Solubility in / Miscibility with Water:** Fully soluble.

- **Segregation coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - **dynamic:** Not applicable.
  - **kinematic:** Not applicable.

- **Other information:** No further relevant information available.

**SECTION 10: Stability and reactivity**

- **Reactivity**
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Conditions to avoid**
  - No further relevant information available.

- **Incompatible materials:**
  - No further relevant information available.

- **Hazardous decomposition products:**
  - No dangerous decomposition products known if used according to the specifications.
SECTION 11: Toxicological information
- 11.1 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: Causes severe burns on skin, eyes, respiratory organs and mucous membranes.
- Sensitization: No sensitizing effect known.
- Additional toxicological information:
  Corrosive
  Swallowing will have a strong caustic effect on mouth and throat and could lead to danger of perforation of oesophagus and stomach.

SECTION 12: Ecological information
- 12.1 Toxicity
  - Aquatic toxicity: No further relevant information available.
  - 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:
    Water hazard class 1 (Self-assessment): slightly hazardous for water.
    Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
  - 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 waste. Do not allow product to reach sewage system.
    According to the local official regulations.
  - Waste disposal key number: 070608
    The waste disposal key numbers are organized according to branch and process classification in the European waste catalogue.
  - European waste catalogue
    The waste disposal key numbers are organized according to branch and process classification in the European waste catalogue.
  - Uncleaned packagings:
    - Recommendation: Disposal must be made according to official regulations.
    - Recommended cleaning agent:
      Collect small amounts of the product mechanically. Rinse away any residue with water.

SECTION 14: Transport information
- 14.1 UN-Number
  - ADR, IMDG, IATA
    UN1823
- 14.2 UN proper shipping name
  - ADR
    1823 SODIUM HYDROXIDE, SOLID, mixture
  - IMDG, IATA
    SODIUM HYDROXIDE, SOLID
Safety data sheet  
according to 1907/2006/EC, Article 31

Printing date 18.09.2013  
Version number 5  
Revision: 18.09.2013

Trade name Two in One

- **14.3 Transport hazard class(es)**
  - ADR  
    - Class 8 (C6) Corrosive substances.  
    - Label 8

- **14.4 Packing group**
  - ADR  
    - Label II

- **14.5 Environmental hazards:**
  - Marine pollutant: No

- **14.6 Special precautions for user**
  - Kemler Number: Warning: Corrosive substances.  
    - 80
  - Segregation groups: Alkalis

- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
  - Not applicable.

- **Transport/Additional information:**
  - ADR  
    - Tunnel restriction code E
  - UN "Model Regulation": UN1823, SODIUM HYDROXIDE, SOLID, mixture, 8, II

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - National regulations
    - Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
  - **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 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 phrases**

This R-phrase is valid to some extent only for ingredients and does not indicate the classification of the preparation / material.

- H290 May be corrosive to metals.
- H314 Causes severe skin burns and eye damage.
- H319 Causes serious eye irritation.
- H400 Very toxic to aquatic life.
- R35 Causes severe burns.
- R36 Irritating to eyes.
- R50 Very toxic to aquatic organisms.

**Department issuing data specification sheet:** Quality protection department.

**Contact:** see Point 1.