## 1. Identification

**Product identifier**
*Detergent-Tab for RATIONAL SelfCookingCenter®, Art.-no. 56.00.206A, 56.00.210A, 56.00.220A*

**Recommended use of the chemical and restrictions on use**
- Use of the substance/mixture
  - Cleaning agent for professional users only

**Details of the supplier of the safety data sheet**
- Company name: RATIONAL AG
- Street: Siegfried-Meister-Strasse 1, 86899 Landsberg am Lech, Germany
- Telephone: +49 8191 327-236
- Telefax: +49 8191 327-72 236
- Responsible Department: Responsible for the safety data sheet: reinigung@rational-online.com
- Emergency phone number:
  - In North America contact Info Trac at 1-800-535-5053
  - outside USA/CA contact +49 89 19240

## 2. Hazard(s) identification

### Classification of the chemical
- Regulation (EC) No. 1272/2008
  - **Hazard categories:**
    - Skin corrosion/irritation: Skin Corr. 1A
    - Serious eye damage/eye irritation: Eye Dam. 1
  - **Hazard Statements:**
    - Causes severe skin burns and eye damage

### Label elements
  - **Signal word:** Danger
  - **Pictograms:**

### Hazard statements
- Causes severe skin burns and eye damage

### Precautionary statements
- Keep out of reach of children.
- If medical advice is needed, have product container or label at hand.
- Wear protective gloves/protective clothing/eye protection/face protection.
- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If swallowed: Rinse mouth. Do NOT induce vomiting.
- Immediately call a poison center/doctor.
- Dispose of contents/container to hazardous or special waste collection point.

### Hazards not otherwise classified
- No data available.

## 3. Composition/information on ingredients

**Mixtures**
Chemical characterization
Mixture containing substances listed in section 3 with additives

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>caustic soda, sodium hydroxide</td>
<td>30 - &lt; 50 %</td>
</tr>
<tr>
<td>6834-92-0</td>
<td>Disodium metasilicate</td>
<td>10 - &lt; 20%</td>
</tr>
<tr>
<td>497-19-8</td>
<td>Sodium carbonate</td>
<td>10 - &lt; 20%</td>
</tr>
<tr>
<td>68154-99-4</td>
<td>Fatty alcohol alcoxylate</td>
<td>1 - &lt; 5%</td>
</tr>
</tbody>
</table>

4. First-aid measures

Description of first aid measures

General information
If you feel unwell, seek medical advice.

After inhalation
Move to fresh air in case of accidental inhalation of dusts.
Wash mouth and nasal passages with water.

After contact with skin
In case of contact with skin wash off immediately with soap and water.
Remove contaminated soaked clothing immediately.
Consult a doctor if skin irritation persists.

After contact with eyes
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Consult (eye) doctor immediately.

After ingestion
Rinse out mouth and give plenty of water to drink.
Summon a doctor immediately.
Do not induce vomiting.

Most important symptoms and effects, both acute and delayed
DANGER!
Causes severe burns.

OSHA Hazard Communication: This material is considered hazardous by the OSHA Hazard Communication Standard 29CFR 1910.1200.

Indication of any immediate medical attention and special treatment needed
No data available.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
Product does not burn, fire-extinguishing activities according to surrounding.

Unsuitable extinguishing media
None

Specific hazards arising from the chemical
Water forms corrosive alkaline solutions.

Special protective equipment and precautions for fire-fighters
Wear self-contained breathing apparatus and protective suit.
Additional information
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Use personal protective clothing.
Keep people away and stay on the upwind side.
Avoid contact with skin, eyes and clothing.

Environmental precautions
Do not discharge into the drains/surface waters/groundwater.

Methods and material for containment and cleaning up
Pick up mechanically, avoiding dust, and provide disposal in suitable recipients.
Flush rests with sufficient amount of water.

Reference to other sections
Information for disposal look up chapter 13.

7. Handling and storage

Precautions for safe handling
Advice on safe handling
No special handling advice required.

Advice on protection against fire and explosion
No special protective measures against fire required.

Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep in closed original container.

Advice on storage compatibility
Keep away from food, drink and animal feeding stuffs.
Do not store with acids.
Protect from moisture.

8. Exposure controls/personal protection

Control parameters

Exposure limits

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>t/cc</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>TWA (8 h)</td>
<td>PEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>TWA (8 h)</td>
<td>TLV</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Peak</td>
<td></td>
</tr>
</tbody>
</table>

Additional advice on limit values
Does not contain substances above concentration limits fixing an occupational exposure limit.

Exposure controls

Appropriate engineering controls
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

Protective and hygiene measures
Avoid dust formation. Take off immediately all contaminated clothing.
Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.
During work do not eat, drink, smoke or take drugs.

**Eye/face protection**
- Eye wash bottle with pure water.
- Tightly fitting goggles.

**Hand protection**
- Protective gloves
- Suitable material: NR (natural rubber), CR (polychloroprene) or NBR (nitrile rubber), category III according to EN 374
- The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
- Breakthrough time (maximal wear duration):
  - Wear duration with occasional contact, splashes (Level 2: < 30 min): Disposable-gloves, Thickness of the glove material 0,1 mm
  - Wear duration with permanent contact (Level 6: < 480 min): Protective gloves, Thickness of the glove material 0,7 mm.
- Breakthrough times and swelling properties of the material must be taken into consideration.

**Skin protection**
- Light protective clothing

**Respiratory protection**
- No personal respiratory protective equipment normally required.
- Breathing apparatus (particle filter) only if dust is formed.

### 9. Physical and chemical properties

#### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Tablet</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
<td></td>
</tr>
<tr>
<td>pH-Value</td>
<td>approx. 12,7</td>
<td>1% solution</td>
</tr>
</tbody>
</table>

#### Changes in the physical state

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial boiling point and boiling range:</td>
<td>n.a.</td>
</tr>
<tr>
<td>Flash point:</td>
<td>n.a.</td>
</tr>
<tr>
<td>Lower explosion limits:</td>
<td>n.a.</td>
</tr>
<tr>
<td>Upper explosion limits:</td>
<td>n.a.</td>
</tr>
<tr>
<td>Ignition temperature:</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

#### Oxidizing properties
- Non oxidizing.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor pressure:</td>
<td>n.a.</td>
</tr>
<tr>
<td>Density</td>
<td>1100 g/cm³</td>
</tr>
<tr>
<td>Water solubility (at 20 °C)</td>
<td>Soluble</td>
</tr>
<tr>
<td>Partition coefficient:</td>
<td>n.d.</td>
</tr>
<tr>
<td>Viscosity / dynamic:</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

#### Other information
- No data available.

### 10. Stability and reactivity

Revision No: 6,31
USA - EN
Revision date: 17.07.2018
Safety Data Sheet

Detergent-Tab for RATIONAL SelfCookingCenter®

Print date: 17.07.2018  Product code: 00625-0031_US_GHS  Page 5 of 8

Reactivity
No data available.

Chemical stability
Stability: Stable
Stable under normal conditions.

Possibility of hazardous reactions
Hazardous reactions: May occur
Strong exothermic reaction with acids.
Reactions with light metals, with evolution of hydrogen.

Conditions to avoid
Protect from moisture.

Incompatible materials
Exothermic reaction with: Acids.

Hazardous decomposition products
Develops poisonous gases in contact with acids.

11. Toxicological information

Information on toxicological effects

Route(s) of Entry
Skin and eye contact, inhalation and ingestion.

Acute toxicity
Based on available data, the classification criteria are not met.
Classification relevant LD/LC 50 values:
LD50/oral/rat: 600 - 1350 mg/kg (Disodium metasilicate )
LD50/oral/rat: 2000 mg/kg (caustic soda, sodium hydroxide)
LD50/oral/rat: > 2000 mg/kg (Fatty alcohol alcoxylate)
LD50/oral/rat: > 4900 mg/kg (Sodium carbonate)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Exposure routes</th>
<th>Method</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>497-19-8</td>
<td>Sodium carbonate</td>
<td>oral</td>
<td>LD50</td>
<td>4090 mg/kg</td>
<td>rat</td>
<td>IUCLID</td>
</tr>
<tr>
<td>68154-99-4</td>
<td>Fatty alcohol alcoxylate</td>
<td>oral</td>
<td>LD50</td>
<td>&gt; 2000 mg/kg</td>
<td>rat</td>
<td></td>
</tr>
</tbody>
</table>

Irritation and corrosivity
Causes severe skin burns and eye damage
Causes severe burns.
Irritates respiratory tract.
Danger of perforation of the gullet and of the stomach.

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

Specific target organ toxicity (STOT) - single exposure
Based on available data, the classification criteria are not met.

Severe effects after repeated or prolonged exposure
Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction
Based on available data, the classification criteria are not met.
### 12. Ecological information

**Ecotoxicity**
- Disodium metasilicate
  - LC50/Brachydanio rerio/96 h = 3185 mg/l
  - EC50/Daphnia magna/48 h = 4857 mg/l
- Sodium carbonate
  - LC50/Lepomis macrochirus/96 h = 300 mg/l
- Fatty alcohol alcoxylate
  - LC50/Leuciscus idus/96 h = 0.1 - 1 mg/l
  - EC50/Waterplants/72 h = 0.1 - 1 mg/l

**Persistence and degradability**
- No data available.

**Bioaccumulative potential**
- No data available.

**Mobility in soil**
- No data available.

**Other adverse effects**
- No data available.

### 13. Disposal considerations

**Waste treatment methods**

**Advice on disposal**
Remove in accordance with local official regulations.

**Contaminated packaging**
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

### 14. Transport information

**US DOT 49 CFR 172.101**

<table>
<thead>
<tr>
<th>UN/ID number</th>
<th>UN3262</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (caustic soda, sodium hydroxide, Disodium metasilicate)</td>
</tr>
<tr>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td>Packing group:</td>
<td>II</td>
</tr>
<tr>
<td>Hazard label:</td>
<td>8</td>
</tr>
</tbody>
</table>

**Marine transport (IMDG)**

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN3262</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, disodium metasilicate)</td>
</tr>
<tr>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
</tbody>
</table>
Detergent-Tab for RATIONAL SelfCookingCenter®

Packing group: II
Hazard label: 8

Limited quantity: 1 kg
EmS: F-A, S-B

Air transport (ICAO)
UN number: UN3262
UN proper shipping name: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, disodium metasilicate)
Transport hazard class(es): 8
Packing group: II
Hazard label: 8

Limited quantity Passenger: 5 kg
IATA-packing instructions - Passenger: 814
IATA-max. quantity - Passenger: 15 kg
IATA-packing instructions - Cargo: 816
IATA-max. quantity - Cargo: 50 kg

Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user
Take the usual precautions when handling chemicals.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
The transport takes place only in approved and appropriate packaging.

Other applicable information
US DOT 49 CFR 172.101 LQ: 1 kg / 1L

15. Regulatory information

U.S. Regulations
National Inventory TSCA
All of the components are listed on the TSCA inventory.

National regulatory information
SARA Section 304 CERCLA:
Sodium hydroxide (1310-73-2): Reportable quantity = 1,000 (454) lbs. (kg)
SARA Section 311/312 Hazards:
Sodium hydroxide (1310-73-2): Immediate (acute) health hazard
Disodium metasilicate (6834-92-0): Immediate (acute) health hazard
Sodium carbonate (497-19-8): Immediate (acute) health hazard
Fatty alcohol alcoxylate (111190-40-0): Immediate (acute) health hazard

SARA
To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.
State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)
This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Hazardous Materials Information Label (HMIS)

Health: 3
Flammability: 0
Physical Hazard: 1

NFPA Hazard Ratings

Health: 3
Flammability: 0
Reactivity: 1
Unique Hazard: 1

Changes

Revision date: 17.07.2018
Revision No: 6,31
Changes in chapter: 1, 8

Other data

The information in this document is based on the present state of knowledge and is applicable to the product with regard to appropriate safety precautions.
The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.
The delivery specifications are contained in the corresponding product sheet.
This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.
(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)