Material Safety Data Sheet
according to ANSI Z400.1-2004

Cleaning-Tab for RATIONAL SelfCooking Center®

Print date: 02.09.2013
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier
Cleaning-Tab for RATIONAL SelfCooking Center®, Art.-no. 56.00.206A, 56.00.210A, 56.00.220A

Chemical characterization (Mixture)

Details of the supplier of the safety data sheet
Company name: Rational AG
Street: Iglinger Strasse 62
Place: D-86899 Landsberg
Telephone: +49 (0)8191-3270
Telefax: +49 (0)8191-21735
Responsible Department: Responsible for the safety data sheet: reinigung@rational-online.com
Emergency telephone: In North America contact Info Trac at 1-800-535-5053
outside USA/CA contact +49 89 19240

SECTION 2: Hazards identification

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

Signs and Symptoms of Exposure
WARNING!
Corrosive

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

Carcinogenicity (NTP): Not listed
Carcinogenicity (IARC): Not listed
Carcinogenicity (OSHA): Not listed

Other hazards
Not known.

SECTION 3: Composition/information on ingredients

Mixtures

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>Sodium hydroxide</td>
<td>&gt; 20 %</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 - 20 %</td>
</tr>
<tr>
<td>68154-99-4</td>
<td>Fatty alcohol ethoxylate</td>
<td>1 - 5 %</td>
</tr>
</tbody>
</table>

Further Information
EC Regulation 648/2004 (regulation on detergents)
< 5% non-ionic surfactants, polycarboxylates.

SECTION 4: First aid measures

Description of first aid measures

General information
Remove contaminated soaked clothing immediately.
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If you feel unwell, seek medical assistance.

After inhalation
Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.

After contact with skin
In case of contact with skin wash off immediately with plenty of water.
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. Seek medical assistance immediately.

After ingestion
Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.
Never give anything by mouth to an unconscious person. Seek medical assistance immediately.

Indication of any immediate medical attention and special treatment needed
Treat symptoms.
Causes severe skin burns and eye damage.
Ingestion causes burns of the upper digestive and respiratory tracts. Danger of perforation of the esophagus and of the stomach.

SECTION 5: Firefighting measures

Extinguishing media

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

Unsuitable extinguishing media
Full water stream.

Special hazards arising from the substance or mixture
Fire may produce:
Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

Advice for firefighters
Wear self-contained breathing apparatus and protective suit.

Additional information
Cool containers at risk with water spray stream.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Avoid dust formation. Use personal protective 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 away residues with water.

Reference to other sections
Observe protective instructions (see Sections 7 and 8).
Information for disposal look up chapter 13.

SECTION 7: Handling and storage
Precautions for safe handling

Advice on safe handling
Avoid the formation of dust. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Do not breathe dust. Avoid contact with eyes, skin or mucous membrane.

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.
Keep containers tightly closed in a dry, well-ventilated place.
Do not use zinc containers.
Do not use aluminium containers.
Do not use light metal drums.

Advice on storage compatibility
Do not store with acids.

Further information on storage conditions
Keep away from food, drink and animal feeding stuffs.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure limits

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fib/cc</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>2</td>
<td></td>
<td></td>
<td>TWA (8 h)</td>
<td>PEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td>1</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>TLV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td>C 2</td>
<td></td>
<td>Ceiling</td>
<td>REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td>C 2</td>
<td></td>
<td>Ceiling</td>
<td>TLV</td>
</tr>
</tbody>
</table>

Exposure controls

Occupational exposure controls
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

Protective and hygiene measures
Avoid the formation of dust. Do not inhale dust.
Avoid contact with eyes and skin.
Wash hands before breaks and immediately after handling the product.
When using, do not eat, drink or smoke.
Remove and wash contaminated clothing before re-use.

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

Hand protection
Protective gloves resistant to chemicals made of natural-rubber latex, Minimum coat thickness 0.6 mm, Permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Lapren 706> made by www.kcl.de.
This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.
Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.
Eye protection
Tightly fitting goggles
Eye wash bottle with pure water.

Skin protection
Light protective clothing

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

- **Physical state:** Solid
- **Color:** White
- **Odor:** Characteristic

**Test method**

- **pH-Value:** 12,7

**Changes in the physical state**

- **Flash point:** n.a.
- **Lower explosion limits:** n.a.
- **Upper explosion limits:** n.a.
- **Ignition temperature:** n.a.

**Oxidizing properties**

- Not oxidising.

**Density (at 20 °C):** 1,1 g/cm³

**Water solubility:** Soluble

**(at 20 °C)**

**Other information**

- No data available.

SECTION 10: Stability and reactivity

**Stability:** Stable

**Possibility of Hazardous Reactions:** May occur

**Conditions to avoid**

- Protect from moisture.

**Incompatible materials**

- Acids
- Metals

**Hazardous decomposition products**

- Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).
- Hydrogen

SECTION 11: Toxicological information

**Information on toxicological effects**

**Acute toxicity**

- Sodium hydroxide
- LD50/oral/rat: 2000 mg/kg
- Disodium metasilicate
- LD50/oral/rat: 1280 mg/kg
- Sodium carbonate
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**LD50/oral/rat:** > 2000 mg/kg
- Fattyalcohol etheroxylate
- LD50/oral/rat: > 2000 mg/kg

**Irritation and corrosivity**
Causes severe skin burns and eye damage.

**Sensitizing effects**
Not classified.

**Severe effects after repeated or prolonged exposure**
- STOT - Single exposure: Not classified.
- STOT - Repeated exposure: Not classified.
- Aspiration hazard: Not classified.

**Carcinogenic/mutagenic/toxic effects for reproduction**
- Carcinogenicity: Not classified.
- Mutagenicity: Not classified.
- Teratogenicity: Not classified.

**Empirical data on effects on humans**
Contact with eyes may cause corneal injury.
Ingestion causes burns of the upper digestive and respiratory tracts. Danger of perforation of the esophagus and of the stomach.

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**SECTION 12: Ecological information**

**Toxicity**
- Disodium metasilicate
  - LC50/Brachydanio rerio/96 h = 210 mg/l
- Fattyalcohol etheroxylate
  - EC50/Daphnia magna/100 h = 247 mg/l
- LC50/Leuciscus idus/96 h = 0,1 - 1 mg/l

**Persistence and degradability**
Product is biodegradable.

**Bioaccumulative potential**
No data available.

**Mobility in soil**
The product is soluble in water.

**Other adverse effects**
No data available.

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**SECTION 13: Disposal considerations**

**Waste treatment methods**

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

**Contaminated packaging**
Empty containers should be taken for local recycling, recovery or waste disposal.
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
Packaging that cannot be cleaned should be disposed of like the product.

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**SECTION 14: Transport information**

**US DOT 49 CFR 172.101**

**ID Number:** UN3262

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Proper shipping name: Corrosive solid, basic, inorganic, n.o.s. (sodium hydroxide, disodium metasilicate, mixture)

Hazard Class or Division: 8

Packing group: II

Label: 8

Marine transport (IMDG)

UN number: UN3262

UN proper shipping name: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, disodium metasilicate, mixture)

Transport hazard class(es): 8

Packing group: II

Hazard label: 8

Marine pollutant: No

Limited quantity: 1 kg / 30 kg

EmS: F-A, S-B

Air transport (ICAO)

UN/ID number: UN3262

UN proper shipping name: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, disodium metasilicate, mixture)

Transport hazard class(es): 8

Packing group: II

Hazard label: 8

Limited quantity Passenger: 5 kg

IATA-packing instructions - Passenger: 859

IATA-max. quantity - Passenger: 15 kg

IATA-packing instructions - Cargo: 863

IATA-max. quantity - Cargo: 50 kg

Environmental hazards

Dangerous for the environment: no

SECTION 15: Regulatory information

U.S. Regulations

National Inventory TSCA

All of the components are listed on the TSCA inventory.

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.

Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.
Hazardous Materials Information Label (HMIS)

- Health: 3
- Flammability: 0
- Physical Hazard: 1

NFPA Hazard Ratings

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

Other data

Data of sections 4 to 8, as well as 10 to 12, do not necessarily refer to the use and the regular handling of the product (in this sense consult Prescribing Information and expert information), but to release of major amounts in case of accidents and irregularities.

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.)