

# Material safety datasheets



**Cleaner tablets for SelfCooking Center®**  
**Care-Tabs for SelfCooking Center®**



# Safety Data Sheet

according to Regulation (EU) No. 1907/2006

## Detergent-Tab for RATIONAL SelfCooking Center®

Revision date : 14.08.2008

00625-0003

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### 1. Identification of the substance/preparation and of the company/undertaking

#### Identification of the substance or preparation

Detergent-Tab for RATIONAL SelfCooking Center®

Product - No.

56.00.206, 56.00.210

#### Use of the substance/preparation

Cleaning agent

#### Company/undertaking identification

Company name : Rational AG



Street : Iglinger Strasse 62

Place : D-86899 Landsberg

Inquiry office :

Produktmanagement

Tel.: ++49 (0)8191-3270

Fax: ++49 (0)8191-21735

Emergency telephone: ++49 (0)89-19240

Responsible for the safety data sheet: reinigung@rational-online.de

### 2. Hazards identification

#### Classification

Indications of danger : Corrosive

R-phrases :

Causes severe burns.

Irritating to respiratory system.

### 3. Composition/information on ingredients

#### Chemical characterization (preparation)

#### Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
215-185-5	1310-73-2	Sodium hydroxide	< 45 %	C R35
229-912-9	6834-92-0	Disodium metasilicate	< 25 %	C, Xi R34-37
207-838-8	497-19-8	Sodium carbonate	< 15 %	Xi R36
		Fatty alcohol alcoxylate	< 5 %	Xi R38

Full text of each relevant R phrase can be found in heading 16.

### 4. First aid measures

#### General information

Remove contaminated soaked clothing immediately.

If you feel unwell, seek medical advice.

#### 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.

Consult (eye) doctor immediately.

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### After ingestion

Do not induce vomiting.  
Summon a doctor immediately.

## 5. Fire-fighting measures

### Suitable extinguishing media

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

### Extinguishing media which must not be used for safety reasons

Full water jet

### Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases

Fire may produce:  
Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

### Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit.

### Additional information

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

## 6. Accidental release measures

### Personal precautions

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 for cleaning up/taking up

Pick up mechanically, avoiding dust, and provide disposal in suitable recipients.  
Flush away residues with water.

## 7. Handling and storage

### 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.

### Storage

#### Requirements for storage rooms and vessels

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.

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### Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

## 8. Exposure controls/personal protection

### Exposure limit values

#### Exposure limits (EH40)

CAS-No.	Chemical name	ml/m <sup>3</sup>	mg/m <sup>3</sup>	F/ml	Category	Origin
1310-73-2	Sodium hydroxide	-	-		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL

### 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 off 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

Eye wash bottle with pure water.

Tightly fitting goggles

#### Skin protection

Light protective clothing

## 9. Physical and chemical properties

### General information

Physical state : Tablet  
 Colour : White  
 Odour : Characteristic

### Important health, safety and environmental information

Test method

pH-Value : n. d.

#### Changes in the physical state

Flash point : n.a.

Lower explosion limits : n.a.

Upper explosion limits :

Density (at 20 °C) : 1,1 g/cm<sup>3</sup>

Water solubility : Soluble  
 (at 20 °C)

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### Other information

Ignition temperature : n.a.

### 10. Stability and reactivity

#### Conditions to avoid

Strong exothermic reaction with acids.  
Reactions with light metals, with evolution of hydrogen.

#### Materials to avoid

Acids

#### Hazardous decomposition products

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

#### Additional information

No decomposition if stored and applied as directed.

### 11. Toxicological information

#### Empirical data on effects on humans

Causes severe burns.  
Irritates respiratory tract.  
Danger of perforation of the gullet and of the stomach.

### 12. Ecological information

#### Further information

When low concentrations are discharged correctly into adapted biological sewage treatment plants, interference with the degradation activity of activated sludge is not likely.  
The product is an alkaline solution. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.  
Slightly water hazardous.  
Do not discharge product unmonitored into the environment.

### 13. Disposal considerations

#### Advice on disposal

Remove in accordance with local official regulations.

#### Waste disposal number of waste from residues/unused products

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

#### 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.

### 14. Transport information

#### Land transport (ADR/RID)

UN number :	3262
ADR/RID class :	8
Classification code :	C6
Warning plate	
Hazard-no. :	80
Hazard label :	8
ADR/RID packing group :	II
Limited quantity :	LQ 23

#### Description of the goods

Corrosive solid, basic, inorganic, n.o.s. (Disodium metasilicate, Sodium hydroxide)

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### Other applicable information (land transport)

LQ 23: combination packaging: 3 kg / 30 kg (total gross mass); trays: 1 kg / 20 kg (total gross mass).

### Marine transport

UN number : 3262  
 IMDG code : 8  
 Marine pollutant : No  
 Hazard label : 8  
 IMDG packing group : II  
 EmS : F-A; S-B  
 Limited quantity : 1 kg / 30 kg

### Description of the goods

CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, disodium metasilicate)

### Other applicable information (marine transport)

Limited quantities (chapter 3.4): combination packaging: 1 kg / 30 kg (total gross mass); trays: 1 kg / 20 kg (total gross mass).

### Air transport

UN/ID number : 3262  
 ICAO/IATA-DGR : 8  
 Hazard label : 8  
 ICAO packing group : II  
 Limited quantity Passenger : Y814 / 5 kg  
 IATA-packing instructions - Passenger : 814  
 IATA-max. quantity - Passenger : 15 kg  
 IATA-packing instructions - Cargo : 816  
 IATA-max. quantity - Cargo : 50 kg

### Description of the goods

CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, disodium metasilicate, mixture)

## 15. Regulatory information

### Labelling

#### Additional advice on labelling

According to EC-regulations the product is to be labelled as follows:

Danger symbols :



C - Corrosive

#### Hazardous component(s) to be indicated on label

Disodium metasilicate  
 Sodium hydroxide

#### R phrases

35 Causes severe burns.  
 37 Irritating to respiratory system.

#### S phrases

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 35 This material and its container must be disposed of in a safe way.  
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### EU regulatory information

1999/13/EC (VOC) : 0 %

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### National regulatory information

Employment restrictions : *Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.*

Water contaminating class (D) : *1 - slightly water contaminating*

### 16. Other information

#### **Full text of R-phrases referred to under sections 2 and 3**

- 34 *Causes burns.*
- 35 *Causes severe burns.*
- 36 *Irritating to eyes.*
- 37 *Irritating to respiratory system.*
- 38 *Irritating to skin.*

#### **Further Information**

*Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation 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)"*

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

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### 1. Identification of the substance/preparation and of the company/undertaking

#### Identification of the substance or preparation

RATIONAL CARE-TAB

Product - No.

56.00.560, 56.00.562

#### Use of the substance/preparation

Preservative agent

#### Company/undertaking identification

Company name :

Rational AG



Street :

Iglinger Strasse 62

Place :

D-86899 Landsberg

Inquiry office :

Produktmanagement

Tel.: ++49 (0)8191-3270

Fax: ++49 (0)8191-21735

Emergency telephone: ++49 (0)89-19240

Responsible for the safety data sheet: [reinigung@rational-online.de](mailto:reinigung@rational-online.de)

### 2. Hazards identification

#### Classification

Indications of danger : Irritant

R-phrases :

Irritating to eyes and skin.

### 3. Composition/information on ingredients

#### Chemical characterization (preparation)

Mixture containing following substances with additives :

#### Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
201-069-1	77-92-9	Citric acid	> 40 %	Xi R36
210-514-9	617-48-1	Malic acid	> 20 %	Xi R36/38
204-673-3	124-04-9	Adipic acid	1 - 5 %	Xi R36

Full text of each relevant R phrase can be found in heading 16.

### 4. First aid measures

#### General information

If you feel unwell, seek medical advice.

#### 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.

#### After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Seek medical treatment by eye specialist.

#### After ingestion

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Rinse out mouth thoroughly with water.

Do not induce vomiting.

Summon a doctor immediately.

### 5. Fire-fighting measures

#### **Suitable extinguishing media**

Water spray jet

Fire-extinguishing activities according to surrounding.

#### **Extinguishing media which must not be used for safety reasons**

None

#### **Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases**

None

#### **Special protective equipment for fire-fighters**

Not required.

#### **Additional information**

Do not release chemically contaminated water into drains, soil or surface waters. Sufficient measures must be taken to retain water used for extinguishing.

### 6. Accidental release measures

#### **Personal precautions**

No special precautions required.

#### **Environmental precautions**

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

#### **Methods for cleaning up/taking up**

Pick up mechanically, avoiding dust, and provide disposal in suitable recipients.

Flush away residues with water.

### 7. Handling and storage

#### **Handling**

##### **Advice on safe handling**

Avoid the formation of dust.

Avoid contact with eyes, skin or mucous membrane.

##### **Advice on protection against fire and explosion**

No special protective measures against fire required.

#### **Storage**

##### **Requirements for storage rooms and vessels**

Keep in the original sealed container.

##### **Further information on storage conditions**

Keep away from food, drink and animal feeding stuffs.

### 8. Exposure controls/personal protection

#### **Exposure limit values**

##### **Additional advice on control parameters**

Obey TLV for common dust, if applicable.

#### **Exposure controls**

##### **Protective and hygiene measures**

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Avoid contact with eyes and skin.  
Wash hands before breaks and at the end of workday.  
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.

### Hand protection

Not required.

### Eye protection

Safety goggles with side protection

## 9. Physical and chemical properties

### General information

Physical state : Tablet  
Colour : White  
Odour : Characteristic

### Important health, safety and environmental information

Test method

pH-Value : 2,5 (1%)

### Changes in the physical state

Flash point : n.a.  
Lower explosion limits : n.a.  
Upper explosion limits :

### Oxidizing properties

n.a.  
Vapour pressure : n.a.  
(at 20 °C)  
Water solubility : Soluble  
(at 20 °C)  
Partition coefficient : n. d.

### Other information

Ignition temperature : n.a.  
Bulk density: approx. 800 g/L

## 10. Stability and reactivity

### Conditions to avoid

Not known

### Materials to avoid

Not known

### Hazardous decomposition products

Not known

## 11. Toxicological information

### Acute toxicity

LD50/oral/rat: Citric acid: 3000 mg/kg  
LD50/oral/rat: Adipic acid: 5700 mg/kg

### Corrosive and irritant effects

Irritating to eyes and skin.

### Empirical data on effects on humans

If appropriately handled and if in accordance with the general hygienic rules, no damages to health have become known.

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### Further information

The product was classified on the basis of the calculation procedure of the preparation directive (1999/45/EC).  
No toxicological data available.

## 12. Ecological information

### Ecotoxicity

Citric acid :

LC50 (96h)/Leuciscus idus: 440 mg/l

EC50 (72h)/Daphnia magna: 85 mg/l

Toxicity to bacteria: > 10000 mg/l

Adipic acid:

LC50 (96h)/Pimephales promelas: 97 mg/l

EC50 (48h)/Daphnia magna: 85,6 mg/l

EC50 (96h)/Scenedesmus subspicatus: 31,3 mg/l

### Persistence and degradability

The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

### Bioaccumulative potential

No data available.

### Further information

Do not release undiluted or in higher quantities into the groundwater, sewerage or waters.

Do not release undiluted into wastewater or drainage ditch.

Slightly water hazardous.

## 13. Disposal considerations

### Advice on disposal

Remove in accordance with local official regulations.

### Waste disposal number of waste from residues/unused products

200129 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); detergents containing dangerous substances  
Classified as hazardous waste.

### Contaminated packaging

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

## 14. Transport information

### Further Information

No hazardous material as defined by the transport regulations.

## 15. Regulatory information

### Labelling

#### Additional advice on labelling

According to EC-regulations the product is to be labelled as follows:

Danger symbols :



*Xi - Irritant*

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### R phrases

36/38 Irritating to eyes and skin.

### S phrases

02 Keep out of the reach of children.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

28 After contact with skin, wash immediately with plenty of water .

46 If swallowed, seek medical advice immediately and show this container or label.

24/25 Avoid contact with skin and eyes.

### EU regulatory information

1999/13/EC (VOC) : 0 %

### Additional information

This product complies with the criteria developed in the Regulation (EC) No. 648/2004 on detergents.

### National regulatory information

Water contaminating class (D) : 1 - slightly water contaminating

## 16. Other information

### **Full text of R-phrases referred to under sections 2 and 3**

36 Irritating to eyes.

36/38 Irritating to eyes and skin.

### **Further Information**

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