according to 29 CFR 1910.1200(g)

Oven Delimer Tablets for RATIONAL SelfCookingCenter®, Art. Nr. 56.00.560, 56.00.562

Print date: 03.02.2016 Product code: 00625-0016_US_GHS Page 1 of 7

1. Identification

Product identifier

Oven Delimer Tablets for RATIONAL SelfCookingCenter®, Art. Nr. 56.00.560, 56.00.562

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Preservative agent

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.de

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 Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements: Causes skin irritation Causes serious eye irritation

Label elements

Regulation (EC) No. 1272/2008

Signal word: Warning

Pictograms:



Hazard statements

Causes skin irritation

Causes serious eye irritation

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: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If exposed or concerned: Get medical advice/attention.

Hazards not otherwise classified

Not known.

3. Composition/information on ingredients

Mixtures

according to 29 CFR 1910.1200(g)

Oven Delimer Tablets for RATIONAL SelfCookingCenter®, Art. Nr. 56.00.560, 56.00.562

Print date: 03.02.2016 Product code: 00625-0016_US_GHS Page 2 of 7

Hazardous components

CAS No	Components	Quantity
77-92-9	Citric acid	> 20 %
617-48-1	Malic acid	> 20 %
124-04-9	Adipic acid	1 - 5 %

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 dust or fumes from overheating or combustion.

After contact with skin

In case of contact with skin wash off immediately with soap and 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 treatment by eye specialist.

After ingestion

Rinse out mouth thoroughly with water.

Do not induce vomiting.

Never give anything by mouth to an unconscious person.

Summon a doctor immediately.

Most important symptoms and effects, both acute and delayed

WARNING!

Causes serious eye irritation.

Causes skin irritation.

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

Treat symptoms.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

Full water jet.

Specific hazards arising from the chemical

Fire may produce:

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

Special protective equipment and precautions for fire-fighters

Use breathing apparatus with independent air supply.

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.

according to 29 CFR 1910.1200(g)

Oven Delimer Tablets for RATIONAL SelfCookingCenter®, Art. Nr. 56.00.560, 56.00.562

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

No special precautions required.

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

Observe protective instructions (see Sections 7 and 8).

Information for disposal look up chapter 13.

7. Handling and storage

Precautions for safe 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.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in the original sealed container.

Keep containers tightly closed in a dry, well-ventilated place.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

8. Exposure controls/personal protection

Control parameters

Exposure controls

Appropriate engineering controls

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

Protective and hygiene measures

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.

Eye/face protection

Tightly fitting goggles.

Eye wash bottle with pure water.

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

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.

according to 29 CFR 1910.1200(g)

Oven Delimer Tablets for RATIONAL SelfCookingCenter®, Art. Nr. 56.00.560, 56.00.562

Print date: 03.02.2016 Product code: 00625-0016_US_GHS Page 4 of 7

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

Physical state: Tablet
Color: White
Odor: Characteristic

Test method

pH-Value: 2,5 (1%)

Changes in the physical state

Flash point: n.a.

Lower explosion limits: n.a.

Upper explosion limits:

Ignition temperature: n.a.

Oxidizing properties

n.a.

Vapor pressure: n.a.

(at 20 °C)

Water solubility: Soluble

(at 20 °C)

Partition coefficient: n.d.

Other information

Bulk density: approx. 800 g/L

10. Stability and reactivity

Reactivity

No decomposition if stored and applied as directed.

Chemical stability

Stability: Stable

Stable under normal conditions.

Possibility of hazardous reactions

Hazardous reactions: Will not occur

No hazardous reactions known.

Conditions to avoid

Protect from moisture.

Incompatible materials

No materials to be especially mentioned.

Hazardous decomposition products

No hazardous decomposition products known.

11. Toxicological information

Information on toxicological effects

according to 29 CFR 1910.1200(g)

Oven Delimer Tablets for RATIONAL SelfCookingCenter®, Art. Nr. 56.00.560, 56.00.562

Print date: 03.02.2016 Product code: 00625-0016_US_GHS Page 5 of 7

Route(s) of Entry

Skin and eye contact, inhalation and ingestion.

Acute toxicity

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

Citric acid

LD50/oral/rat: 6730 mg/kg

Adipic acid

LD50/oral/rat: 11000 mg/kg

Malic acid

LD50/oral/rat: >3200 mg/kg

CAS No	Components							
	Exposure routes	Method	Dose	Species	Source			
77-92-9	Citric acid							
	oral	LD50	11700 mg/kg	Rat				
	dermal	LD50	> 2000 mg/kg	Rat				

Irritation and corrosivity

Causes skin irritation

Causes serious eye irritation

Skin irritation: Irritant Eye irritation: Irritant

Sensitizing effects

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

Irritant

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.

STOT - Single exposure: Not classified. STOT - Repeated exposure: Not classified.

Aspiration hazard: Not classified.

Carcinogenic/mutagenic/toxic effects for reproduction

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

Carcinogenicity: Not classified. Mutagenicity: Not classified. Teratogenicity: Not classified.

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

Aspiration hazard

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

Practical experience

Other observations

Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.

12. Ecological information

Ecotoxicity

Citric acid:

LC50/Leuciscus idus/96 h: 440 - 706 mg/l

according to 29 CFR 1910.1200(g)

Oven Delimer Tablets for RATIONAL SelfCookingCenter®, Art. Nr. 56.00.560, 56.00.562

Print date: 03.02.2016 Product code: 00625-0016_US_GHS Page 6 of 7

EC50/Daphnia magna: 85 mg/l

Adipic acid:

LC50/Pimephales promelas/96 h: 97 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.

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.

14. Transport information

US DOT 49 CFR 172.101

<u>Proper shipping name:</u> Not regulated.

Other applicable information

Non hazardous material as defined by the transport regulations.

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:

Adipic acid (124-04-9): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

Citric acid (77-92-9): Immediate (acute) health hazard Malic acid (617-48-1): Immediate (acute) health hazard Adipic acid (124-04-9): 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.

according to 29 CFR 1910.1200(g)

Oven Delimer Tablets for RATIONAL SelfCookingCenter®, Art. Nr. 56.00.560, 56.00.562

Print date: 03.02.2016 Product code: 00625-0016_US_GHS Page 7 of 7

16. Other information

Hazardous Materials Information Label (HMIS)

Health: 2
Flammability: 0
Physical Hazard: 0

NFPA Hazard Ratings

Health: 2
Flammability: 0
Reactivity: 0

Unique Hazard:

Changes

Revision date: 03.02.2016

Revision No: 6,1

-

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.)