

# SAFETY DATA SHEET

Version number: 9.1  
Issued: 2024-11-22  
Replaces SDS: 2023-12-25

according to UN-GHS (ST/SG/AC.10/30/Rev.10)



## Care tabs

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

#### 1.1. Product identifier

**Trade name**

Care tabs

**Article No.**

56.00.562; 56.01.527; 56.01.529

**UFI code**

R5YU-WMOD-PR18-HMMV

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

**Relevant identified uses**

RATIONAL care tabs for all iHexagon, iCombi Pro, iCombi Classic and SelfCookingCenter® models with Efficient CareControl for commercial use.

**Not suitable for use in**

All other uses are discouraged.

#### 1.3. Details of the supplier of the safety data sheet

**Supplier**

RATIONAL AG

Address

Siegfried-Meister-Straße 1  
86899 Landsberg am Lech  
Germany

Telephone

+49 8191 327 387

Email

reinigung@rational-online.com

Fax

+49 8191 327 231

Web site

www.rational-online.com

#### 1.4. Emergency telephone number

Emergency CONTACT (24-Hour-Hotline): +49 6132 844 63

**Available outside office hours**

Yes

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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification

Skin corrosion, hazard category 1B

Serious eye damage, hazard category 1

Specific Target Organ Toxicity — Single exposure, hazard category 3 - respiratory tract irritation

##### Hazard statements

H314, H318, H335

#### 2.2. Label elements

##### Hazard pictograms



##### Signal word

Danger

##### Hazard statements

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

##### Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P280 Wear protective gloves/eye protection.

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): 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.

P310 Immediately call a POISON CENTER/doctor.

P501 Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

##### More information

Hazard components for labeling: Citric acid , Malic acid , adipic acid

#### 2.3. Other hazards

This mixture does not contain any substances that are classified as PBT or vPvB.

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### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

Chemical name	CAS No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
DL-malic acid	617-48-1	20 - 50%	Skin Irrit. 2, Eye Irrit. 2	H315, H319 - -	-
citric acid	77-92-9	20 - 50%	Eye Irrit. 2, STOT SE 3 - resp. tract irrit.	H319, H335 - -	-
adipic acid	124-04-9	5 - 15%	Eye Irrit. 2	H319 - -	-

#### Substance additional information

For the complete text of H-statements mentioned in this section, see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### Description of first aid measures

First responders: Pay attention to self-protection.

##### Inhalation

Not applicable.

##### Skin contact

Wash off with soap and water. In the case of skin irritation or allergic reactions see a physician.

##### Eye contact

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.

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### Ingestion

Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Consult a physician if necessary.

### Information for doctors

For specialist advice physicians should contact the Poisons Information Service.

#### 4.2. Most important symptoms and effects, both acute and delayed

Immediate effects can be expected after long-term exposure.

### Inhalation

Not applicable.

### Skin contact

Causes severe skin burns.

### Eye contact

Causes severe eye burns.

### Ingestion

If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Show this safety data sheet to the doctor in attendance.

## SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Water spray, dry powder, foam, carbon dioxide (CO<sub>2</sub>).

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions.

#### 5.3. Advice for firefighters

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

Wear self contained breathing apparatus for fire fighting if necessary.

##### Measures in case of fire

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Avoid direct contact with the material / product.

#### 6.2. Environmental precautions

Not required.

#### 6.3. Methods and material for containment and cleaning up

Use mechanical handling equipment. Dispose of as hazardous waste in compliance with local and national regulations.

#### 6.4. Reference to other sections

For information on storage and handling see section 7.

For information on exposure and personal protective equipment, see Section 8.

For information on incompatible materials, see Section 10.

For information on disposal see section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Preventive handling precautions

Avoid direct contact with the material / product. Wear personal protective equipment.

##### General hygiene

Wash hands after handling.

When using, do not eat, drink or smoke.

The usual precautionary measures when handling chemicals must be observed.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and animal feeding stuffs.

Store in a place accessible by authorized persons only. Keep out of reach of children.

Storage class according to TRGS 510: 8A (Flammable, corrosive hazardous substances)

Suitable container and packaging materials for safe storage: store in original container.

Storage temperature: 10 °C to 40 °C

#### 7.3. Specific end use(s)

PC35 - Washing and cleaning products (including solvent based products)

See section Care-Tab

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No data available

#### 8.2. Exposure controls

##### Appropriate engineering controls

Not required.

##### Eye / face protection

Chemical-resistant safety glasses with side protection conforming to EN166.

##### Hand protection

Chemical-resistant protective gloves (EN 374)

Suitable material: Butyl (butyl rubber) or NBR (nitrile rubber), category III according to EN 374.

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

##### Other skin protection

This type of personal protective equipment is not necessary under normal and foreseeable use of the product.

##### Respiratory protection

This type of personal protective equipment is not necessary under normal and foreseeable use of the product.

##### Thermal hazards

Not applicable

##### Environmental exposure controls

No special environmental precautions required.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

##### Physical state

Tablet

##### Colour

White

##### Odour

Characteristic

##### Odour threshold

No information available.

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### Melting point / freezing point

Not applicable.

### Boiling point or initial boiling point and boiling range

Not applicable.

### Flammability

Not applicable.

### Lower and upper explosion limit

The product / mixture has no explosive properties.

### Flash point

No data available

### Auto-ignition temperature

Not applicable.

### Decomposition temperature

No information available.

### pH

2.5

### **Method**

1 % aqueous solution

### Kinematic viscosity

Not applicable.

### Viscosity, dynamic

Not applicable.

### Solubility

Water soluble

### Water solubility

Completely soluble

### Partition coefficient n-octanol/water

No information available.

### Vapour pressure

Not applicable.

### Density and/or relative density

820 - 900 kg/m<sup>3</sup>

### **Method**

Bulk density

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### Relative density

No information available.

### Relative vapour density

Not applicable.

### Evaporation Rate

Not applicable.

### Explosive properties

The product / mixture has no explosive properties.

### Oxidising properties

The product / mixture has no oxidizing properties.

### VOC %

< 3 %

### Particle characteristics

This product / mixture does not contain any nanomaterials or nanoforms.

## 9.2. Other information

No information available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable at normal conditions

### 10.2. Chemical stability

The product is chemically stable.

### 10.3. Possibility of hazardous reactions

None under normal use.

### 10.4. Conditions to avoid

Protect from moisture.

### 10.5. Incompatible materials

Strong bases

Light metals

Oxidizing agent

### 10.6. Hazardous decomposition products

For information on combustion products, see Section 5.

Hazardous decomposition products formed under fire conditions.

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### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes

Toxicology data for the components.

##### Acute toxicity

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

Product / Substance name CAS no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals	Method / Guideline	Remarks
DL-malic acid 617-48-1	LC50	>1.306 mg/l	Inhalation	4 h	rat	OECD 403	-
adipic acid 124-04-9	LD50	5560 mg/kg	Oral	-	rat	OECD 401	ECHA
citric acid 77-92-9	LD50	5.400 mg/kg	Oral	-	mouse	OECD 401	ECHA
citric acid 77-92-9	LD50	>2.000 mg/kg	Dermal	-	rat	OECD 402	ECHA
DL-malic acid 617-48-1	LD50	9.300 mg/kg	Oral	-	rat	OECD 401	-

##### Skin corrosion/irritation

Causes severe skin burns.

##### Serious eye damage/irritation

Causes severe eye burns.

##### Respiratory or skin sensitisation

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

##### Germ cell mutagenicity

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

##### Carcinogenicity

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

##### Reproductive toxicity

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

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### STOT-single exposure

May cause respiratory irritation.

### STOT-repeated exposure

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

### Aspiration hazard

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

## 11.2. Information on other hazards

### Endocrine disrupting properties

The mixture / product does not contain any ingredients with endocrine disrupting properties.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Toxicity

Toxicology data for the components.

#### Acute fish toxicity

Product / Substance name CAS no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline	Remark
citric acid 77-92-9	LC50	440 mg/l	48 h	Leuciscus idus	OECD 203	ECHA
DL-malic acid 617-48-1	LC50	> 100 mg/l	96h	Danio rerio	OECD 203	-
adipic acid 124-04-9	LC0	> 1.000 mg/l	96h	Danio rerio	-	ECHA

#### Acute algae toxicity

Product / Substance name CAS no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline	Remark
DL-malic acid 617-48-1	EC50	> 100 mg/l	72h	Pseudokirchneriella subcapitata	Static test	-

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Product / Sub-stance name CAS no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline	Remark
adipic acid 124-04-9	ErC50	59 mg/l	72h	Pseudokirchneri-ella subcapitata	OECD 201	ECHA

### Acute crustacean toxicity

Product / Sub-stance name CAS no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline	Remark
DL-malic acid 617-48-1	EC50	47,52 mg/l	48h	Daphnia magna	OECD 202	-
adipic acid 124-04-9	LC50	46 mg/l	48h	Daphnia magna	OECD 202	ECHA
citric acid 77-92-9	LC50	1.535 mg/l	24 h	Daphnia magna	-	ECHA

### Micro-/macro organism toxicity

Product / Sub-stance name CAS no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
DL-malic acid 617-48-1	EC50	>300 mg/l	3h	Bacteria (activated sludge)	OECD 209

### 12.2. Persistence and degradability

#### Persistence and degradability

Readily biodegradable, according to appropriate OECD test.

OECD test guideline: 301 B (CO<sub>2</sub> Evolution test)

The surfactants contained in this mixture / product meet the requirements for biodegradability.

### 12.3. Bioaccumulative potential

#### Bioaccumulative potential

No information is available for this item.

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### 12.4. Mobility in soil

#### Mobility

No information is available for this item.

### 12.5. Results of PBT and vPvB assessment

This mixture does not contain any substances that are classified as PBT or vPvB.

### 12.6. Endocrine disrupting properties

The mixture / product does not contain any ingredients with endocrine disrupting properties.

### 12.7. Other adverse effects

#### Other adverse effects

This product / mixture does not contain any substances that deplete the ozone layer.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal considerations

Dispose of as hazardous waste in compliance with local and national regulations.

#### Packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

Contaminated packaging / sheets: Dispose of as unused product.

Waste code	Waste description
20 01 29*	detergents containing hazardous substances

Please note - an asterisk (\*) next to a code denotes that it is HAZARDOUS WASTE.

## SECTION 14: Transport information

### 14.1. UN number

3261

### 14.2. UN proper shipping name

#### ADR / RID / ADN proper shipping name

3261 - CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. ( Citric acid , Malic acid , adipic acid )

#### IMDG proper shipping name

CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (CITRIC ACID, MALIC ACID, ADIPIC ACID)

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### 14.3. Transport hazard class(es)

**Label**

ADR/RID/ADN



8

**ADR / RID Class**

8

**ADR / RID Classification code**

C4

**ADR / RID hazard identification number**

80

**IMDG Class**

8

**IATA Class**

8

**ADN Class**

8

**ADN Class Code**

C4

### 14.4. Packing group

II

### 14.5. Environmental hazards

**Environmental hazards**

No

**IMDG Marine Pollutant**

No

### 14.6. Special precautions for user

**IMDG EmS**

F-A,S-B

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

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### Other

#### Additional information ADR-RID

LQ: 1 kg

EQ: E1

Transport category (tunnel restriction code): 2 (E)

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National regulations

In addition, comply with all national and local regulations for the handling of chemicals.

### 15.2. Chemical safety assessment

The mixture has not been subjected to a safety assessment.

## SECTION 16: Other information

#### Changes to previous revision

Addition iHexagon : SECTION 1.2

Addition Suitable material: SECTION 8.2

#### Abbreviations

ADN - European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR - The European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS - Chemical Abstract Service

CLP - Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DMEL - Derived Minimum Effect Level

DNEL - Derived No Effect Level

EC50 - Half maximal effective concentration 50%

GHS - Globally Harmonized System of Classification and Labelling of Chemicals

IATA - International Air Transport Association

IMDG - International Maritime Dangerous Goods

LC50 - Lethal concentration 50%

LD50 - Lethal dosis 50 %

MARPOL - International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978. ("Marpol" - marine pollution)

PBT - Persistent, bioaccumulative and toxic substance

PEC - Predicted Environmental Concentration

PNEC - Predicted No Effect Concentration

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals

RID - The regulations concerning the International Carriage of Dangerous Goods by Rail

SVHC - Substance of Very High Concern

vPvB - Very persistent, very bioaccumulative substance

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### **References to key literature and data sources**

REACH registration dossiers  
ECHA C&L - Inventory  
Safety data sheets from raw material suppliers

### **Evaluation methods for classification**

Classification for mixtures and used evaluation method according to Article 9 of regulation (EC) 1272/2008 [CLP]:  
Health hazards: OECD 431 (reconstructed human epidermis) ; OECD 438 (Isolated Chicken Eye Test)

### **Phrase meaning**

Skin Corr. 1B - Skin corrosion, hazard category 1B  
Eye Dam. 1 - Serious eye damage, hazard category 1  
STOT SE 3 - resp. tract irrit. - Specific Target Organ Toxicity — Single exposure, hazard category 3 - respiratory tract irritation  
Skin Irrit. 2 - Skin irritation, hazard category 2  
Eye Irrit. 2 - Eye irritation, hazard category 2  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

### **Manufacturer's notes**

Legal disclaimer: The above information is believed to be correct. This company shall not be held liable for any damage resulting from handling or from contact with the above product.