

Care cartridge

Safety Data Sheet

according to the WHS Regulations

Issue date: 29/11/2022 Revision date: 20/12/2024 Supersedes: 07/02/2024 Version: 2.2

SDS No: 00625-0081



SECTION 1: Product identifier

1.1. GHS Product identifier

Product form : Mixture
Product name : Care cartridge

1.2. Other means of identification

Further information : Article number: 56.01.914; 56.01.908; 56.02.214

1.3. Recommended use of the chemical and restrictions on use

Recommended use : RATIONAL Care cartridge for all iHexagon, iCombi Pro cooking systems with iCareSystem
AutoDose for commercial use
Acidic descaler for professional users

1.4. Details of manufacturer or importer

Manufacturer

RATIONAL AG
Siegfried-Meister-Straße 1
Landsberg am Lech 86899
Germany
T +49 8191 327 387 - F +49 8191 327 231
reinigung@rational-online.com - www.rational-online.com
E-mail address of competent person responsible for the SDS: sds@gbk-ingelheim.de

Importer

COMCATER Pty. Ltd.
191 Salmon Street, Port Melbourne
Victoria 3207
Australia
T +61 (0) 3 8369 4600 - F +61 (0) 3 8369 4666
www.comcater.com.au

1.5. Emergency phone number

Emergency number : Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

Country/Area	Organisation/Company	Address	Emergency number	Comment
Australia	NSW Poisons Information Centre The Children's Hospital at Westmead	Locked Bag 4001 NSW 2145 Westmead	13 11 26	

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 1	H314
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU) :



Corrosion

Exclamation
mark

Signal word (GHS AU) :

Danger

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Contains	: Maleic acid (50 - 70 %); citric acid (20 - 30 %); adipic acid (10 - 20 %)
Hazard statements (GHS AU)	: H302 - Harmful if swallowed H314 - Causes severe skin burns and eye damage H317 - May cause an allergic skin reaction H335 - May cause respiratory irritation
Precautionary statements (GHS AU)	: P101 - If medical advice is needed, have product container or label at hand. P280 - Wear protective gloves, protective clothing, eye protection, face 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 . 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 doctor, a POISON CENTER. P501 - Dispose of contents and container to in accordance with local and national regulations.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
Maleic acid	110-16-7	50 - 70	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317
citric acid	77-92-9	20 - 30	Eye Irrit. 2A, H319 STOT SE 3, H335
adipic acid	124-04-9	10 - 20	Eye Irrit. 2A, H319
Other substances (not contributing to the classification of this product)	-	Up to 100%	-

SECTION 4: First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: Medical personnel should be made aware of substance(s) involved and take measures for self protection.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, consult a doctor.
First-aid measures after skin contact	: After contact with skin, wash immediately and thoroughly with water and soap. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Wash immediately with plenty water (during 15 minutes), also under eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink. Call a poison center or a doctor if you feel unwell.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Ingestion may cause nausea, vomiting and diarrhea.

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4.3. Medical attention and special treatment

Treatment : If possible, show the doctor this safety data sheet. Failing this, show the doctor the packaging or label.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.
Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses. Contain the extinguishing fluids by bunding.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Hazchem Code : 2X

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid breathing dust. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid breathing dust. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Storage temperature : 10 – 40 °C

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SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

8.2. Biological Monitoring

No additional information available

8.3. Engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber (NBR), Butyl rubber	3 (> 60 minutes)			EN ISO 374

Eye protection : Protective goggles (EN 166)

Skin and body protection : Wear suitable protective clothing

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Physical state	: Solid
Appearance	: No data available
Colour	: White
Odour	: characteristic
Odour threshold	: No data available
pH	: 1.9
pH solution concentration	: 1 %
Relative evaporation rate (butylacetate=1)	: No data available
Melting point / Freezing point	: Freezing point: Not applicable
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Flammability	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Density	: Density: 1.42 g/cm ³
Solubility	: Water: soluble in water
Log Pow	: No data available
Viscosity, kinematic	: Not applicable
Explosive properties	: No data available
Explosive limits	: Not applicable
Minimum ignition energy	: No data available
VOC content	: < 3 %
Fat solubility	: No data available

SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Protect from moisture.

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Incompatible materials	: Strong bases. Light metals. Oxidizing agent.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

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ATE AU (oral)	714.286 mg/kg bodyweight
Maleic acid (110-16-7)	
LD50 dermal rabbit	2620 mg/kg bodyweight Animal: rabbit, Animal sex: female, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
ATE AU (oral)	500 mg/kg
citric acid (77-92-9)	
LD50 oral	5400 mg/kg bodyweight Animal: mouse, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other:, 95% CL: 4500 - 6400
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
adipic acid (124-04-9)	
LD50 oral rat	5560 mg/kg
LC50 Inhalation - Rat	> 7.7 mg/l (4 h, (OECD 403 method)

Skin corrosion/irritation	: Causes severe skin burns. pH: 1.9
Serious eye damage/irritation	: Causes serious eye damage. pH: 1.9
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)

citric acid (77-92-9)	
LOAEL (oral, rat, 90 days)	8000 mg/kg bodyweight Animal: rat
NOAEL (oral, rat, 90 days)	4000 mg/kg bodyweight Animal: rat

Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
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SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

Maleic acid (110-16-7)	
EC50 Daphnia 1	42.81 mg/l Test organisms (species): Daphnia magna

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Maleic acid (110-16-7)

EC50 - Crustacea [2]	≈ 93.8 mg/l Test organisms (species): Daphnia magna
NOEC (chronic)	10 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

citric acid (77-92-9)

LC50 fish 1	440 mg/l (48 h, Leuciscus idus (golden orfe), (OECD 203 method)
EC50 Daphnia 1	1535 mg/l (24 h)

adipic acid (124-04-9)

EC50 Daphnia 1	46 mg/l 48 h, (OECD 202 method)
ErC50 algae	59 mg/l Pseudokirchneriella subcapitata, (OECD 201 method)
NOEC chronic crustacea	6.3 mg/l 48 h, (OECD 211 method)
LC0, Danio rerio	> 1000 mg/l (96 h, ECHA)

12.2. Persistence and degradability

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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.
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	: Not classified (Based on available data, the classification criteria are not met)
Other adverse effects	: No additional information available

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Fluorinated greenhouse gases	False
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Maleic acid (110-16-7)

Fluorinated greenhouse gases	False
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citric acid (77-92-9)

Fluorinated greenhouse gases	False
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adipic acid (124-04-9)

Fluorinated greenhouse gases	False
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SECTION 13: Disposal considerations

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
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SECTION 14: Transport information

In accordance with ADG / IMDG / IATA

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ADG	IMDG	IATA
14.1. UN number		
3261	3261	3261
14.2. UN Proper Shipping Name		
CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Maleic acid ; citric acid ; adipic acid)	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Maleic acid ; citric acid ; adipic acid)	Corrosive solid, acidic, organic, n.o.s. (Maleic acid ; citric acid ; adipic acid)
14.3. Transport hazard class(es)		
8	8	8
		
14.4. Packing group		
II - Substances presenting medium danger	II	II
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No

14.6. Special precautions for user

Specific storage requirement : No data available
Shock sensitivity : No data available

14.7. Additional information

Other information : No supplementary information available

Transport by road and rail

UN-No. (ADG) : 3261
Special provision (ADG) : 274
Limited quantities (ADG) : 1kg
Excepted quantities (ADG) : E2
Packing instructions (ADG) : P002, IBC08
Special packing provisions (ADG) : B2, B4
Portable tank and bulk container instructions (ADG) : T3
Portable tank and bulk container special provisions (ADG) : TP33

Transport by sea

UN-No. (IMDG) : 3261
Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 kg
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P002
IBC packing instructions (IMDG) : IBC08
IBC special provisions (IMDG) : B21, B4
Tank instructions (IMDG) : T3
Tank special provisions (IMDG) : TP33
Stowage category (IMDG) : B
Segregation (IMDG) : SGG1, SG36, SG49

Air transport

UN-No. (IATA) : 3261
PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y844
PCA limited quantity max net quantity (IATA) : 5kg
PCA packing instructions (IATA) : 859

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PCA max net quantity (IATA) : 15kg
CAO packing instructions (IATA) : 863
CAO max net quantity (IATA) : 50kg
Special provisions (IATA) : A3, A803
ERG code (IATA) : 8L

14.8. Hazchem or Emergency Action Code

Hazchem Code : 2X

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS) : All the chemicals contained in this product are listed introductions Inventory) status

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

No additional information available

Australian Pesticides and Veterinary Medicines Authority (APVMA)

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Other information

Indication of changes

Section	Changed item	Comments
1		Modified

Revision date : 20/12/2024

Other information : Data of sections 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.

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number

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Abbreviations and acronyms:	
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor
DOT	Department of Transport
TDG	Transportation of Dangerous Goods
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
GHS	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
IBC-Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
MARPOL 73/78	MARPOL 73/78: International Convention for the Prevention of Pollution From Ships
ADG	Transport of Australian Dangerous Goods
Classification	
Acute Tox. 4 (Oral)	H302
Skin Corr. 1	H314
Eye Dam. 1	H318
Skin Sens. 1	H317

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Abbreviations and acronyms:

STOT SE 3	H335
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Full text of H-statements

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore not be construed as guaranteeing any specific property of the product.