Active Green cleaner tab

Safety Data Sheet

according to SS 586 Part 3 (2014)
Issue date: 24/5/2023 Revision date: 18/12/2024 Supersedes: 24/5/2023 Version: 1.1
SDS No: 00625-0082

SECTION 1: Identification

1.1. Product identifier

Name : Active Green cleaner tab

1.2. Other means of identification

Further information : Article number: 56.01.537, 56.01.728, 56.01.529

1.3. Recommended use of the chemical and restrictions on use

Recommended uses and restrictions
Recommended use : RATIONAL Active Green cleaner tab without sodium hydroxide for iHexagon, iCombi Pro, iCombi Classic and SelfCookingCenter® models with Efficient CareControl and CombiMaster® Plus models with automatic cleaning for commercial use,
Cleaning agent,
For professional users only

1.4. Supplier's details

Supplier
RATIONAL AG
Siegfried-Meister-Straße 1 Landsberg am Lech Germany 86899
T +49 8191 327 387 - F +49 8191 327 231
reinigung@rational-online.com - www.rational-online.com

Supplier
RATIONAL Cooking Systems Pte Ltd
25 International Business Park
#02-15/17 German Centre
Singapore 609919
Singapore
T +65 6809 5850

E-mail address of competent person responsible for the SDS: reinigung@rational-online.de

1.5. Emergency phone number

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

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Health hazards
Skin corrosion/irritation, Category 1A
Serious eye damage/eye irritation, Category 1
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

2.2. GHS label elements, including precautionary statements

Hazard pictograms (GHS SG) :



Signal word (GHS SG) : Danger

Hazard statements (GHS SG)
H314 : Causes severe skin burns and eye damage
H335 : May cause respiratory irritation

Precautionary statements

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

Prevention
P280 : Wear protective clothing, eye protection, face protection, protective gloves.

Response

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 doctor, a POISON CENTER.

Disposal

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

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Synonyms	Concentration (%)	Formula	Product identifier	GHS SG classification
disodium metasilicate	-	40 - 60	H2O3Si.2Na	CAS-No.: 6834-92-0 EC-No.: 229-912-9 EC Index-No.: 014-010-00-8	Met. Corr. 1, H290 Skin Corr. 1B, H314 STOT SE 3, H335
Sodium carbonate	-	10 - 30	CH2O3.2Na	CAS-No.: 497-19-8 EC-No.: 207-838-8 EC Index-No.: 011-005-00-2	Eye Irrit. 2, H319

SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

First-aid measures general : Adhere to personal protective measures when giving first aid.

Inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

Skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Get immediate medical advice/attention.

Eye contact : Call a physician immediately. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion : Rinse mouth. If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns. May perforate the oesophagus or the digestive tract.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treatment : Treat symptomatically. 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. Suitable 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 actions for fire fighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust.

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. Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

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 contact with skin and eyes. Do not breathe dust. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. 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
Information on mixed storage : Keep away from food, drink and animal feeding stuffs.
Packaging materials : Don't use packaging made out of aluminium, zinc or tin.

7.3. Specific end use(s)

See Section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters/Occupational exposure limits

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering control measures

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

8.4. Personal protection – 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	Butyl rubber, Nitrile rubber (NBR)	3 (> 60 minutes)			EN ISO 374

Eye protection : tightly fitting safety goggles

Skin and body protection : Wear suitable protective clothing

Respiratory protection : Not required for normal conditions of use

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : tablet.
Colour : White
Odour : characteristic
Odour threshold : No data available
pH : 12 – 13
pH solution concentration : 1 %
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : Not applicable
Boiling point : No data available
Flash point : Not applicable
Auto-ignition temperature : Not applicable
Decomposition temperature : No data available
Flammability : Non flammable.
Vapour pressure : No data available
Relative vapour density at 20°C : No data available
Relative density : No data available
Solubility : Soluble in water.
Log Pow : No data available
Partition coefficient n-octanol/water (Log Kow) : No data available
Viscosity, kinematic : Not applicable
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : Not applicable

9.2. Other information

VOC content : < 3 %

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Exothermic reaction on contact with: Acids.

10.4. Conditions to avoid

Keep out of frost. Keep away from heat and direct sunlight. Protect from atmospheric moisture and water.

10.5. Incompatible materials

Strong acids. Light metals. Oxidizing agent.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Acute toxicity

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
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)

disodium metasilicate (6834-92-0)	
LD50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 2.06 mg/l air Animal: rat, Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)

Sodium carbonate (497-19-8)	
LD50 oral rat	2800 mg/kg bodyweight Animal: rat
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:

Skin corrosion/irritation : Causes severe skin burns.
pH: 12 – 13
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
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)

disodium metasilicate (6834-92-0)	
NOAEL (oral, rat, 90 days)	227 – 237 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

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

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.
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)

disodium metasilicate (6834-92-0)	
LC50 fish 1	210 mg/l (96 h, Brachydanio rerio (zebra-fish))
EC50 Daphnia 1	1700 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	207 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

Sodium carbonate (497-19-8)	
LC50 fish 1	300 mg/l Test organisms (species): Lepomis macrochirus
EC50 Daphnia 1	200 – 227 mg/l Test organisms (species): Ceriodaphnia sp.
EC50 - Crustacea [2]	200 – 227 mg/l Test organisms (species): Ceriodaphnia sp.

12.2. Persistence and degradability

Cleaner Tab Active Green	
Persistence and degradability	Readily biodegradable. (OECD 301B method).

12.3. Bioaccumulative potential

Cleaner Tab Active Green	
Bioaccumulative potential	No additional information available

12.4. Mobility in soil

Cleaner Tab Active Green	
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 : Before neutralisation, the product may represent a danger to aquatic organisms.

SECTION 13: Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Empty containers should be taken for recycling, recovery or waste in accordance with local regulation. 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.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
3253	3253	3253
14.2. UN proper shipping name		
DISODIUM TRIOXOSILICATE	Disodium trioxosilicate	DISODIUM TRIOXOSILICATE
14.3. Transport hazard class		
8	8	8
		
14.4. Packing group, if applicable		
III	III	III
14.5. Environmental hazards		
Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for users

UN RTDG

Limited quantities (UN RTDG) : 5 kg
Excepted quantities (UN RTDG) : E1
Packing instruction (UN RTDG) : P002, IBC08, LP02
Special packing provisions (UN RTDG) : B3
Portable tank and bulk container special instructions (UN RTDG) : T1
Portable tank and bulk container special provisions (UN RTDG) : TP33

IMDG

Limited quantities (IMDG) : 5 kg
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P002, LP02
IBC packing instructions (IMDG) : IBC08
IBC special provisions (IMDG) : B3
Tank instructions (IMDG) : T1
Tank special provisions (IMDG) : TP33
Stowage category (IMDG) : A
Segregation (IMDG) : SGG18, SG35

IATA

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y845
PCA limited quantity max net quantity (IATA) : 5kg
PCA packing instructions (IATA) : 860
PCA max net quantity (IATA) : 25kg
CAO packing instructions (IATA) : 864
CAO max net quantity (IATA) : 100kg
Special provisions (IATA) : A803
ERG code (IATA) : 8L

14.7. Transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Regulation		Component / Mixture
Workplace Safety and Health Act Workplace Safety and Health (General Provisions) Regulations	Applicable	disodium metasilicate; Sodium carbonate
Arms and Explosives Act	Not applicable	
Chemical Weapons Prohibition Act	Not applicable	
Environmental Protection and Management (Air Impurities) Regulations	Not applicable	
Environmental Protection and Management Act (Hazardous Substances)	Not applicable	
Environmental Public Health (Quality of Piped Drinking Water) Regulations	Not applicable	
Fire Safety Act/Fire Safety (Petroleum and Flammable Materials) Regulations	Not applicable	
Maritime and Port Authority of Singapore (Dangerous, Petroleum and Explosives) Regulations	Not applicable	
Misuse of Drugs Act	Not applicable	
Poisons Act	Not applicable	
Poisons Rules	Not applicable	
Hazardous waste (Control of export, import and transit) Act	Not applicable	
Strategic goods (Control) Act	Not applicable	

15.2. International regulations

No additional information available

15.3 Chemical inventory status

No additional information available

SECTION 16: Other information

Issue date : 24/5/2023
Revision date : 18/12/2024
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:	
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
GHS	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
LC50	Median lethal concentration

Abbreviations and acronyms:	
LD50	Median lethal dose
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
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
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
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

Abbreviations and acronyms:	
ADG	Transport of Australian Dangerous Goods

Indication of changes		
Section	**Changed item**	**Comments**
1		**Modified**

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.