

Cleaner tab P-free

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

Issue date: 3/13/2026 Revision date: 3/13/2026 Supersedes: 9/24/2025 Version: 2.00



SECTION 1: Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : Cleaner tab P-free
Type of product : Detergent
UN-No. (ADR) : 3262
Article number : 56.02.319, 56.02.319E, 56.02.319U

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : RATIONAL P-free cleaner tab for all SelfCookingCenter with Efficient CareControl and CombiMaster Plus units for commercial use.
Restrictions on use : All other uses not recommended above

1.4. Supplier's details

Manufacturer/Supplier

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

Importer

RATIONAL International India Private Limited
Barthi Worldmark 3, 6th floor
Sector 65, Gurugram,
Haryana 122018
India
T +91 124 483 9333

Email competent person

sds@kft.de

1.5. Emergency phone number

Emergency number : For Hazardous Materials [or Dangerous Goods] Incidents
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Corrosive to metals, Category 1	H290	Calculation method
Skin corrosion/irritation, Category 1A	H314	On basis of test data
Serious eye damage/eye irritation, Category 1	H318	On basis of test data
Hazardous to the aquatic environment – Acute Hazard, Category 3	H402	Calculation method

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : May be corrosive to metals,Causes severe skin burns and eye damage,Causes serious eye damage,Harmful to aquatic life

Cleaner tab P-free

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)

:



Signal word (GHS UN)

: Danger

Hazardous ingredients

: sodium hydroxide; disodium metasilicate; Fatty alcohol alkoxylate

Hazard statements (GHS UN)

: H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H402 - Harmful to aquatic life

Precautionary statements (GHS UN)

: P273 - Avoid release to the environment.
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 affected areas with water .
P305+P354+P338 - IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER, a doctor.
P501 - Dispose of contents and container to a hazardous or special waste collection point.

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	Product identifier	%	Classification according to the United Nations GHS
sodium hydroxide	CAS-No.: 1310-73-2 EC-No.: 215-185-5 EC Index-No.: 011-002-00-6	≥ 25 – < 50	Corrosive to metals, Category 1, H290 Skin corrosion/irritation, Category 1A, H314 Serious eye damage/eye irritation, Category 1, H318 Hazardous to the aquatic environment – Acute Hazard, Category 3, H402
disodium metasilicate	CAS-No.: 6834-92-0 EC-No.: 229-912-9 EC Index-No.: 014-010-00-8	≥ 10 – < 20	Corrosive to metals, Category 1, H290 Skin corrosion/irritation, Category 1B, H314 Serious eye damage/eye irritation, Category 1, H318 Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation, H335
sodium carbonate	CAS-No.: 497-19-8 EC-No.: 207-838-8 EC Index-No.: 011-005-00-2	≥ 10 – < 20	Acute toxicity (oral), Category 5, H303 Serious eye damage/eye irritation, Category 2A, H319

Cleaner tab P-free

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

Fatty alcohol alkoxylate	CAS-No.: 68154-99-4	$\geq 1 - < 2.5$	Acute toxicity (oral), Category 5, H303 Acute toxicity (dermal), Category 4, H312 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 1, H318 Hazardous to the aquatic environment – Acute Hazard, Category 2, H401
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Full text of H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.
Self protection of the first-aiders	: First-aiders should pay attention to their own protection and use the recommended personal protective equipment (see section 8).

4.2. Most important symptoms/effects, acute and delayed

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

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

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Strong water jet.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon dioxide. Carbon monoxide.
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5.3. Special protective actions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

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 contact with skin and eyes. Do not breathe dust.
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Cleaner tab P-free

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

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 sub-soil penetration. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and materials for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
Other information : Disposal must be done according to official regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe dust.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.
Incompatible materials : Metals.
Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.
Special rules on packaging : Store in original container or corrosive resistant and/or lined container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

sodium hydroxide (1310-73-2)	
India - Occupational Exposure Limits	
Local name	Sodium hydroxide
PEL (OEL C)	2 mg/m ³
Regulatory reference	Factories Act 1948 [Act No. 63 of 1948] As amended by the Factories (Amendment) Act, 1987. The second shedule "Permissible levels of certain chemical substances in work environment"

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.
Other information : Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product.

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

Hand protection : In case of contact with the skin : Chemically resistant protective gloves. ISO 374-1. 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. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Cleaner tab P-free

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber	6 (> 480 minutes)	0,35	No additional information available	EN ISO 374-1

Eye protection	: Not required for normal conditions of use. In case of dust production: protective goggles. ISO 16321-1. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure
Skin and body protection	: Not required for normal conditions of use
Respiratory protection	: Not required for normal conditions of use. Dust production: dust mask with filter type P2. EN 143. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust

8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: tablet
Colour	: white.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Not available
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: 12.7
pH solution concentration	: 1 % (Aqueous solution)
Viscosity, kinematic (calculated value) (40 °C)	: Not applicable
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not applicable
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Solubility	: Soluble in water. Water: (completely soluble)
Viscosity, dynamic	: Not applicable
Particle size	: Not available

9.2. Data relevant with regard to physical hazard classes (supplemental)

Explosive properties	: Product is not explosive
Oxidising properties	: Non oxidizing
Relative evaporation rate (butylacetate=1)	: Not applicable
VOC content	: < 3 %
Bulk density	: 950 – 1150 kg/m³

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

Cleaner tab P-free

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Acids. 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. Information on toxicological effects

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)

Cleaner tab P-free

ATE UN (oral) > 5000 mg/kg bodyweight

ATE UN (dermal) > 5000 mg/kg bodyweight

sodium carbonate (497-19-8)

LD50 oral rat 2800 mg/kg bodyweight

LD50 dermal rabbit > 2000 mg/kg bodyweight (No deaths occurred; EPA 16 CFR 1500.40)

Fatty alcohol alkoxyate (68154-99-4)

LD50 oral rat 2414 mg/kg bodyweight

LD50 dermal rabbit 2000 mg/kg bodyweight (Read-across)

LC50 Inhalation - Rat (Vapours) > 7.1 mg/l/4h (1 h, No deaths occurred)

Skin corrosion/irritation : Causes severe skin burns.
pH: 12.7

Serious eye damage/irritation : Causes serious eye damage.
pH: 12.7

Respiratory or skin sensitization : 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 : Not classified (Based on available data, the classification criteria are not met)

disodium metasilicate (6834-92-0)

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/day (OECD 408 method)

Aspiration hazard : Not classified (Not applicable)

Cleaner tab P-free

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

Cleaner tab P-free	
Viscosity, kinematic	Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Harmful to aquatic life.
Hazardous to the aquatic environment, short-term (acute)	: Harmful to aquatic life.
Classification procedure (Hazardous to the aquatic environment, short-term (acute))	: Calculation method
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

sodium hydroxide (1310-73-2)	
LC50 - Fish [1]	35 – 189 mg/l
EC50 - Crustacea [1]	40.4 mg/l (48 h; Ceriodaphnia sp.)
Fatty alcohol alkoxylate (68154-99-4)	
LC50 - Fish [1]	1 – 10 mg/l
EC50 - Crustacea [1]	6.3 mg/l (48 h, Daphnia magna (Water flea), static)

12.2. Persistence and degradability

Cleaner tab P-free	
Persistence and degradability	Readily biodegradable. (OECD 301B method). Contained surfactants are biodegradable.
sodium hydroxide (1310-73-2)	
Persistence and degradability	Not applicable for inorganic substances.
disodium metasilicate (6834-92-0)	
Persistence and degradability	Not applicable for inorganic substances.
sodium carbonate (497-19-8)	
Persistence and degradability	Not applicable for inorganic substances.
Fatty alcohol alkoxylate (68154-99-4)	
Persistence and degradability	Readily biodegradable.
Biodegradation	> 60 % (28 d, (OECD 301F method))

12.3. Bioaccumulative potential

Cleaner tab P-free	
Bioaccumulative potential	No additional information available
sodium hydroxide (1310-73-2)	
Bioaccumulative potential	Not applicable for inorganic substances.
disodium metasilicate (6834-92-0)	
Bioaccumulative potential	Bioaccumulation unlikely.
sodium carbonate (497-19-8)	
Bioaccumulative potential	Not applicable for inorganic substances.

Cleaner tab P-free

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

Fatty alcohol alkoxylate (68154-99-4)	
BCF - Fish [1]	90 estimated
Partition coefficient n-octanol/water (Log Pow)	3.48 calculated

12.4. Mobility in soil

Cleaner tab P-free	
Mobility in soil	No additional information available
sodium hydroxide (1310-73-2)	
Ecology - soil	Expected to be highly mobile in soil.
disodium metasilicate (6834-92-0)	
Ecology - soil	Expected to be highly mobile in soil.
sodium carbonate (497-19-8)	
Ecology - soil	Expected to be highly mobile in soil.
Fatty alcohol alkoxylate (68154-99-4)	
Additional information	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

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Disposal must be done according to official regulations. Do not dispose of with domestic waste. Do not discharge into drains or the environment.
Product/Packaging disposal recommendations	: Recycle or dispose of in compliance with current legislation.

SECTION 14: Transport information

In accordance with UN RTDG / IMDG / IATA

UN RTDG	IMDG	IATA
14.1. UN number		
3262	3262	3262
14.2. UN Proper Shipping Name		
CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide ; disodium metasilicate)	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide ; disodium metasilicate)	Corrosive solid, basic, inorganic, n.o.s. (sodium hydroxide ; disodium metasilicate)
Transport document description		
UN 3262 CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide ; disodium metasilicate), 8, II	UN 3262 CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide ; disodium metasilicate), 8, II	UN 3262 Corrosive solid, basic, inorganic, n.o.s. (sodium hydroxide ; disodium metasilicate), 8, II
14.3. Transport hazard class(es)		
8	8	8

Cleaner tab P-free

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

		
14.4. Packing group		
II	II	II
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for user

UN RTDG

Special provisions (UN RTDG) : 274
Limited quantities (UN RTDG) : 1 kg
Excepted quantities (UN RTDG) : E2
Packing instruction (UN RTDG) : P002, IBC08
Special packing provisions (UN RTDG) : B2, B4
Portable tank and bulk container special instructions (UN RTDG) : T3
Portable tank and bulk container special provisions (UN RTDG) : TP33

IMDG

Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 kg
Excepted quantities (IMDG) : E2
EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage) : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Segregation (IMDG) : SGG18, SG35

IATA

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y844
PCA limited quantity max net quantity (IATA) : 5kg
PCA packing instructions (IATA) : 859
PCA max net quantity (IATA) : 15kg
CAO max net quantity (IATA) : 50kg
Special provisions (IATA) : A3, A803

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

No additional information available

SECTION 16: Other information

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Cleaner tab P-free

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

Section	Changed item	Comments
1.2	Recommended use	Modified
	Emergency number	Modified

Data sources : European Chemicals Agency, <http://echa.europa.eu/>. Supplier Safety Data Sheet.

Department issuing data specification sheet: : KFT Chemieservice GmbH
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D-64347 Griesheim

Phone: +49 69 305 34 700

Fax: +49 69 305 86 500

SDS Service: +49 69 305 34 740

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

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

DMEL - Derived Minimal Effect level

DNEL - Derived-No Effect Level

EC50 - Median effective concentration

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

PBT - Persistent Bioaccumulative Toxic

PNEC - Predicted No-Effect Concentration

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

SDS - Safety Data Sheet

STP - Sewage treatment plant

TLM - Median Tolerance Limit

vPvB - Very Persistent and Very Bioaccumulative

Full text of H-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 5 (Oral)	Acute toxicity (oral), Category 5
Aquatic Acute 2	Hazardous to the aquatic environment – Acute Hazard, Category 2
Aquatic Acute 3	Hazardous to the aquatic environment – Acute Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2

Cleaner tab P-free

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals
H303	May be harmful if swallowed
H312	Harmful in contact with skin
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
H401	Toxic to aquatic life
H402	Harmful to aquatic life

KFT SDS UN 11 - Version 25.1

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 not therefore be construed as guaranteeing any specific property of the product.