

## Safety Data Sheet acc. to OSHA HCS

Printing date 20.11.2018

Reviewed on 20.11.2018

### 1 Identification

- **Product identifier**
- **Trade name: RATIONAL Special cleaner soft for RATIONAL CleanJet® and hand cleaning**
- **Article number:**  
9006.0136  
9006.0146
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Alkaline cleaner/ detergent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
RATIONAL AG  
Siegfried-Meister-Straße 1  
86899 Landsberg am Lech  
Germany  
Tel.: +49 8191 327-2365  
Fax: +49 8191 327-72 2365
- **Information department:** Product management
- **Emergency telephone number:**  
Giftnotruf München "Klinikum rechts der Isar"  
Tel. +49 89 19 24 0

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



Corrosion

Skin Corr. 1B      H314 Causes severe skin burns and eye damage.

Eye Dam. 1      H318 Causes serious eye damage.

Aquatic Acute 3      H402 Harmful to aquatic life.

Aquatic Chronic 3      H412 Harmful to aquatic life with long lasting effects.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05

- **Signal word** Danger

- **Hazard-determining components of labeling:**

Potassium hydroxide

Silicic acid, potassium salt

- **Hazard statements**

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

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

P102      Keep out of reach of children.

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- P103 Read label before use.  
 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/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 in accordance with local/regional/national/international regulations.

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** aqueous solution

- **Dangerous components:**

68604-71-7	Disodium cocoamphodipropionate ⚠ Eye Dam. 1, H318; ⚠ Aquatic Chronic 2, H411; Acute Tox. 5, H303; Aquatic Acute 2, H401	2.5-<10%
1310-58-3	Potassium hydroxide ⚠ Met. Corr. 1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	≤ 2.5%
68188-18-1	Sodium alkylsulfonate ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Chronic 3, H412	≤ 2.5%
1312-76-1	Silicic acid, potassium salt ⚠ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315	≤ 2.5%
	Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Acute Tox. 5, H313	≤ 2.5%

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

### 4 First-aid measures

- **Description of first aid measures**
- **General information** Immediately remove any clothing contaminated by the product.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact**  
Immediately wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact**  
Rinse opened eye for several minutes under running water.  
Remove contact lenses, if present and easy to do.  
Protect unharmed eye.  
Call a doctor immediately.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
If swallowed, seek medical advice immediately and show this container or label.

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- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** None
- **Special hazards arising from the substance or mixture**  
In case of fire, the following can be released:  
Sulphur dioxide (SO<sub>2</sub>)  
Oxides of phosphorus (P<sub>x</sub>O<sub>y</sub>)
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Avoid contact with skin and eyes.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Ensure adequate ventilation.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Send for recovery or disposal in suitable receptacles.  
Dispose of the collected material according to regulations.
- **Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Avoid contact with skin and eyes.  
Keep receptacles tightly sealed.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Observe all local and national regulations for storage of water polluting products.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from frost.

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Store and transport upright.

- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

#### 1310-58-3 Potassium hydroxide

OEL (China)	Ceiling limit value: 2 mg/m <sup>3</sup>
REL (USA)	Ceiling limit value: 2 mg/m <sup>3</sup>
TLV (USA)	Ceiling limit value: 2 mg/m <sup>3</sup>

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Do not eat, drink or smoke while working.

- **Breathing equipment:** Not necessary if room is well-ventilated.

- **Protection of hands:**

Protective gloves

Check the permeability prior to each renewed use of the glove.

To avoid skin problems reduce the wearing of gloves to the required minimum.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material** Protective gloves should be replaced at first signs of wear.

- **Eye protection:** Tightly sealed goggles.

- **Body protection:**

Protective work clothing.

Body protection must be chosen depending on activity and possible exposure.

- **Limitation and supervision of exposure into the environment**

Do not allow to enter sewers/ surface or ground water.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** fluid

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<b>Color:</b>	Red
· <b>Odor:</b>	characteristic
· <b>Odor threshold:</b>	Not determined.
· <b>pH-value at 20 °C:</b>	13.9
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	undetermined
· <b>Flash point:</b>	Not applicable
· <b>Flammability (solid, gaseous)</b>	Not applicable.
· <b>Ignition temperature:</b>	Not applicable
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Oxidizing properties</b>	not classified as oxidising
· <b>Vapor pressure:</b>	Not determined.
· <b>Density at 20 °C:</b>	1.165 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density (AIR = 1)</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>dynamic:</b>	Not determined.
<b>kinematic:</b>	Not determined.
· <b>Other information</b>	Further informations please refer to technical data sheet.

## 10 Stability and reactivity

- **Reactivity**  
No further relevant information available.  
No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**  
Sulfur oxides (SO<sub>x</sub>)  
Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>)

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### 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

<b>68604-71-7 Disodium cocoamphodipropionate</b>		
Oral	LD50	> 5000 mg/kg (mouse)
		> 2000 mg/kg (rat) (OECD 402)

<b>1310-58-3 Potassium hydroxide</b>		
Oral	LD50	284 mg/kg (rat)

<b>68188-18-1 Sodium alkylsulfonate</b>		
Oral	LD50	1271 mg/kg (rat) (OECD 401)
Dermal	LD50	> 5000 mg/kg (rat) (OECD 402)

<b>Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides</b>		
Oral	LD50	1064 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)

- **Primary irritant effect:**

- **on the skin:** Causes severe skin burns and eye damage.

- **on the eye:** Causes serious eye damage.

- **Sensitization:** No sensitizing effects known.

- **Subacute to chronic toxicity:**

<b>68604-71-7 Disodium cocoamphodipropionate</b>		
Oral	NOAEL	1000 mg/kg (rat)

<b>68188-18-1 Sodium alkylsulfonate</b>		
Oral	NOAEL	150 mg/kg/d (rat)

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of Regulation (EC) No. 1272/2008 (CLP/GHS):

Skin Corr. 1B

Eye Dam. 1

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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

- **Reproductive toxicity** Based on available data, the classification criteria are not met.

- **STOT-single exposure** Based on available data, the classification criteria are not met.

- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

### 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

<b>68604-71-7 Disodium cocoamphodipropionate</b>	
LC50/96 h (static)	2.6 mg/l (carp (cyprinus carpio)) (OECD 203)
EC50/3 h	1000 mg/l (bacteria) (OECD 209)
EC50/48 h (static)	90 mg/l (daphnia) (OECD 202)

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ErC50/72 h (static)	33 mg/l (algae (pseudokirchneriella subcapitata)) (OECD 201)
NOEC (static)	0.82 mg/l (algae (pseudokirchneriella subcapitata)) (OECD 201)
<b>1310-58-3 Potassium hydroxide</b>	
LC50/96 h	80 mg/l (gambusia affinis)
<b>68188-18-1 Sodium alkylsulfonate</b>	
LC50/96 h	4.16 mg/l (zebra fish (danio rerio)) (OECD 203)
EC50/3 h	810 mg/l (bacteria) (OECD 209)
EC50/48 h	4.72 mg/l (water flea (daphnia magna)) (OECD 202)
IC50/72 h	246.89 mg/l (algae (Scenedesmus subspicatus)) (OECD 201)
EC50/72 h	95.5 mg/l (algae (Desmodesmus subspicatus)) (OECD 201)
<b>Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides</b>	
LC50/96 h	3.46 mg/l (fis)
EC50	3.1 mg/l (daphnia)
IC50	0.143 mg/l (seagrass)
EC50/72 h	0.266 mg/l (algae)
NOEC	0.067 mg/l (seagrass)

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Harmful to fish

- **Additional ecological information:**

- **General notes:**

Harmful to aquatic life with long lasting effects.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) N° 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.

Water hazard class 1 (Self-assessment) (German regulation): slightly hazardous for water.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Disposal must be made according to local/official regulations.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to local/official regulations.

- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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### 14 Transport information

<ul style="list-style-type: none"> <li>· UN-Number</li> <li>· ADR, IMDG, IATA</li> </ul>	UN1719
<ul style="list-style-type: none"> <li>· UN proper shipping name</li> <li>· ADR</li> <li>· IMDG, IATA</li> </ul>	UN1719 Caustic alkali liquids, n.o.s. (Potassium hydroxide) CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE)
<ul style="list-style-type: none"> <li>· Transport hazard class(es)</li> <li>· ADR</li> </ul>	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	8 (C5) Corrosive substances 8
<ul style="list-style-type: none"> <li>· IMDG, IATA</li> </ul>	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	8 Corrosive substances 8
<ul style="list-style-type: none"> <li>· Packing group</li> <li>· ADR, IMDG, IATA</li> </ul>	II
<ul style="list-style-type: none"> <li>· Environmental hazards:</li> <li>· Marine pollutant:</li> </ul>	No
<ul style="list-style-type: none"> <li>· Special precautions for user</li> <li>· Danger code (Kemler):</li> <li>· EMS Number:</li> <li>· Segregation groups</li> <li>· Stowage Category</li> <li>· Segregation Code</li> </ul>	Warning: Corrosive substances 80 F-A,S-B Alkalis A SG22 Stow "away from" ammonium salts SG35 Stow "separated from" acids.
<ul style="list-style-type: none"> <li>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· Transport/Additional information:</li> </ul>	Not dangerous according to the above specifications.
<ul style="list-style-type: none"> <li>· ADR</li> <li>· Excepted quantities (EQ)</li> </ul>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<ul style="list-style-type: none"> <li>· IMDG</li> <li>· Limited quantities (LQ)</li> <li>· Excepted quantities (EQ)</li> </ul>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

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<b>UN "Model Regulation":</b>	UN 1719 CAUSTIC ALKALI LIQUIDS, N.O.S. (POTASSIUM HYDROXIDE), 8, II
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### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

- **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

- **Chinese Chemical Inventory of Existing Chemical Substances**

All ingredients are listed.

- **National regulations**

- **Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

- **Disturbance regulations:** Directive 2012/18/EU does not apply.

- **Water hazard class:**

Water hazard class 1 (Self-assessment) (German regulation): slightly hazardous for water.

- **Other regulations, limitations and prohibitive regulations**

Observe restrictions on the marketing and use according to Annex XVII of Regulation (EC) No 1907/2006.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

The(se) H-phrase(s) are those of the ingredient(s) and do not necessarily represent the classification of the preparation.

- **Department issuing SDS:**

C.S.B. GmbH Phone: +49 - 2151 - 652086-0

Düsseldorfer Str. 113 Fax: +49 - 2151 - 652086-9

47809 Krefeld / Germany

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 5: Acute toxicity – Category 5

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2  
Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

• \* **Data compared to the previous version altered.**

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