

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 20.11.2018

Version number 2

Revision: 20.11.2018

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

- **Date of compilation:** 26.10.2009
- **1.1 Product identifier**
- **Trade name:** RATIONAL special rinse agent for RATIONAL CleanJet® cleaning system
- **Article number(s):**  
9006.0137  
9006.0147
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation:** Clear rinsing agent / Wetting agent
- **1.3 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
- **E-mail address of the competent person responsible for the Safety Data Sheet:**  
reinigung@rational-online.com
- **Informing department:** Product management
- **1.4 Emergency telephone number:**  
Giftnotruf München "Klinikum rechts der Isar"  
Tel. +49 89 19 24 0

#### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The product is not classified as hazardous according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**  
EUH208 Contains 1,2-Benzisothiazol-3(2H)-one. May produce an allergic reaction.  
EUH210 Safety data sheet available on request.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

#### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Aqueous solution

- **Dangerous components:**

CAS: 5949-29-1 EINECS: 201-069-1	Citric acid, monohydrate ⚠ Eye Irrit. 2, H319	≤ 2.5%
CAS: 67-63-0 EINECS: 200-661-7 Index number: 603-117-00-0	Propan-2-ol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	≤ 2.5%

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

<b>· Ingredients according to Regulation (EC) No 648/2004:</b>	
non-ionic surfactants	<5%
BENZISOTHIAZOLINONE	

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact:**  
Rinse with plenty of water.  
If skin irritation continues, consult a doctor.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
In case of persistent symptoms consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
Carbon dioxide (CO<sub>2</sub>), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** none
- **5.2 Special hazards arising from the substance or mixture**  
Can be released in case of fire:  
Carbon monoxide (CO) and Carbon dioxide (CO<sub>2</sub>)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective clothing.  
Ensure adequate ventilation.  
Do not breathe vapour.
- **6.2 Environmental precautions:** Do not allow to enter drainage system, surface or ground water.
- **6.3 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 containers.  
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.

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See Section 13 for information on disposal.

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### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
 Ensure good ventilation/exhaustion at the workplace.  
 Avoid breathing vapours.  
 Avoid contact with eyes.  
 Avoid long or repeated skin contact.
- **Information about protection against explosions and fires:**  
 The product forms flammable fumes when heated.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**  
 Store in the original container.  
 Observe all local and national regulations for storage of water polluting products.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
 Keep container tightly sealed.  
 Protect from frost.  
 Store and transport upright.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

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

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

#### 67-63-0 Propan-2-ol

WEL (Great Britain)	Short-term value: 1250 mg/m <sup>3</sup> , 500 ppm Long-term value: 999 mg/m <sup>3</sup> , 400 ppm
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- **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
 Keep away from foodstuffs, beverages and food.  
 Do not inhale gases / fumes / aerosols.  
 Avoid contact with the eyes.  
 Avoid close or long term contact with the skin.  
 Wash hands during breaks and at the end of the work.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**  
 Protective gloves  
 To avoid skin problems reduce the wearing of gloves to the required minimum.  
 Check the permeability prior to each renewed use of the glove.  
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
- **Material of gloves**  
 e.g. KCL Dermatril® 740  
 Recommended thickness of the material: ≥ 0.11 mm  
 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

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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**

Penetration time: ≥ 8 hours

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Safety glasses recommended during refilling.

- **Body protection:** Light weight protective clothing

### SECTION 9: Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:	liquid
Colour:	light blue
Smell:	characteristic
Odour threshold:	not determined

- pH-value at 20 °C: 2.2

- **Change in condition**

Melting point/freezing point:	not determined
Initial boiling point and boiling range:	not determined

- Flash point: not applicable

- Inflammability (solid, gaseous) Not applicable.

- Decomposition temperature: Not determined.

- Self-inflammability: Product is not selfigniting.

- Explosive properties: Product is not explosive.

- **Critical values for explosion:**

Lower:	Not determined.
Upper:	Not determined.

- Oxidising properties not classified as oxidising

- Vapor pressure: Not determined.

- Density at 20 °C: 0.95 - 1.05 g/cm<sup>3</sup>

- Relative density Not determined.

- Vapour density (AIR = 1): Not determined.

- Evaporation rate Not determined.

- **Solubility in / Miscibility with**

Water: fully miscible

- Partition coefficient: n-octanol/water: Not determined.

- **Viscosity:**

dynamic:	not determined
kinematic:	not determined

- **9.2 Other information** No further relevant information available.

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### SECTION 10: Stability and reactivity

- **10.1 Reactivity**  
No further relevant information available.  
No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Strong oxidizing agents
- **10.6 Hazardous decomposition products:** Carbon monoxide (CO) and Carbon dioxide (CO<sub>2</sub>)

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

#### 5949-29-1 Citric acid, monohydrate

Oral	LD50	> 3000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)

#### 67-63-0 Propan-2-ol

Oral	LDLo	3570 mg/kg (human)
	LD50	3600 mg/kg (mouse)
		5045 mg/kg (rat)
		6410 mg/kg (rabbit)
Dermal	LD50	12800 - 13400 mg/kg (rabbit)
Inhalative	LC50/4 h	30 - 46.5 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Longer lasting and/or repeated skin contact may cause irritation.
- **Serious eye damage/irritation** Weak irritating effect
- **Respiratory or skin sensitisation**  
Contains 1,2-Benzisothiazol-3(2H)-one. May produce an allergic reaction.
- **Subacute to chronic toxicity:** no data available
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
According to present knowledge no CMR-effects known.
- **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.

### SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

#### 67-63-0 Propan-2-ol

LC50/96 h	9640 mg/l (fathead minnow (pimephales promelas)) (OECD Guideline 203)
EC50/48 h	13299 mg/l (water flea (daphnia magna))
LC50/48 h	8970 mg/l (leuciscus idus)

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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies 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): slightly hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Disposal must be made according to official regulations.  
Smaller quantities can be disposed with household garbage.
- **European waste catalogue:**  
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.  
For that reason waste disposal key numbers different from that listed below may be possible.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### SECTION 14: Transport information

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>  | Void   |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                            | Void   |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul> | Void   |
| <ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                      | Void   |
| <ul style="list-style-type: none"> <li>· <b>14.5 Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>                           | NO   |
| <ul style="list-style-type: none"> <li>· <b>14.6 Special precautions for user</b></li> </ul>   | Not applicable.                                      |
| <ul style="list-style-type: none"> <li>· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b></li> </ul>                   | Not applicable.                                      |
| <ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>   | Not dangerous according to the above specifications. |

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· **UN "Model Regulation":** Void

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Decree to be applied in case of technical fault:** Directive 2012/18/EU does not apply.
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Reasons for changes:**  
The Material Safety Data Sheet has been revised. Changes in the respective chapters are characterized in the left side edge by \*.
- **Relevant phrases**  
The(se) H-phrases are those of the ingredient(s) and do(es) not necessarily represent the classification of the product.  
H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.
- **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  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
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  
Flam. Liq. 2: Flammable liquids – Category 2  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- **\* Data compared to the previous version altered.**

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