Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 22.05.2013 *Version number 1* *Revision: 22.05.2013*

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
· **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 Tel.: ++49-(0)8191 - 32 70
Iglinger Straße 62 Fax: ++49-(0)8191 - 21735
D-86899 Landsberg

· **E-mail address of the competent person responsible for the Safety Data Sheet:** info@rational-online.com

· **Informing department:** Quality management
· **1.4 Emergency telephone number:**
Internationale Giftzentrale Tel.: +49-(0)89-19240
"Rechts der Isar"

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 according to the CLP regulation.
· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Void
· **Classification system:**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements** Void
· **Additional information:**
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 characterization: Mixtures**
· **Description:** Aqueous solution

· **Dangerous components:**

CAS: 5949-29-1 EINECS: 201-069-1	Citric acid, monohydrate Xi R36 Eye Irrit. 2, H319	< 2.5%

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CAS: 67-63-0 EINECS: 200-661-7 Index number: 603-117-00-0	Propan-2-ol Xi R36; F R11 R67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	< 2.5%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

· **Ingredients according to Regulation (EC) No 648/2004:**	
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:** The product is not skin irritating.
· **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_2), 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_2)
· **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.

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· ***6.4 Reference to other sections***
See Section 8 for information on personal protection equipment.

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.
· ***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/m³, 500 ppm* *Long-term value: 999 mg/m³, 400 ppm*

· ***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.
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***

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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***
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 (10 g/l) at 20 °C:***	*3.0 - 4.0*
· ***Change in condition***	
Melting point/Melting range:	*not determined*
Boiling point/Boiling range:	*not determined*
· ***Flash point:***	*not applicable*
· ***Inflammability (solid, gaseous)***	*Not applicable.*
· ***Ignition temperature:***	
Decomposition temperature:	*Not determined.*
· ***Self-inflammability:***	*Product is not selfigniting.*
· ***Danger of explosion:***	*Product is not explosive.*
· ***Critical values for explosion:***	
Lower:	*Not determined.*
Upper:	*Not determined.*
· ***Oxidizing properties***	*not classified as oxidising*
· ***Vapor pressure:***	*Not determined.*
· ***Density at 20 °C:***	*0.95 - 1.05 g/cm³*
· ***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**
· **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_2)

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** Weak irritating effect
· **Sensitization:** No sensitizing effect known.
· **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
According to present knowledge no CMR-effects known.

SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **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.
· **Waste disposal key number:** According to local/national regulations.
· **European waste catalogue:**
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

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· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

· **14.1 UN-Number** · **ADR, IMDG, IATA**	Void
· **14.2 UN proper shipping name** · **ADR, IMDG, IATA**	Void
· **14.3 Transport hazard class(es)** · **ADR, IMDG, IATA** · **Class**	Void
· **14.4 Packing group** · **ADR, IMDG, IATA**	Void
· **14.6 Special precautions for user**	Not applicable.
· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	Not dangerous according to the above specifications.
· **UN "Model Regulation":**	-

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 96/82/EC 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) R- resp. H-phrase(s) are those of the ingredient(s) and do(es) not necessarily represent the classification of the preparation.
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

R11 Highly flammable.
R36 Irritating to eyes.
R67 Vapours may cause drowsiness and dizziness.

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· ***Department issuing MSDS:***

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Düsseldorfer Str. 113
47809 Krefeld / Germany
Phone: +49 - 2151 - 652086-0
Fax: +49 - 2151 - 652086-9

· ***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 Harmonized System of Classification and Labelling of Chemicals