

Material Safety Data Sheet

According to 91/155 EC

Printing date 10.03.2005

Reviewed on 10.03.2005

1 Identification of substance:

· **Product details:**

- Trade name: RATIONAL special rinse agent for RATIONAL CleanJet® cleaning system
- Application of the substance / the preparation Clear rinsing agent/ Wetting agent

· **Manufacturer/Supplier:**

Rational AG
Iglinger Straße 62
D-86899 Landsberg



Tel.: +49-(0)8191 - 32 70

- **Informing department:** Qualitätsmanagement
- **Emergency information:**
Internationale Giftzentrale Tel.: +49-(0)89-19240
"Rechts der Isar"

2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with harmless products.

· **Dangerous components:**

CAS: 5949-29-1 EINECS: 201-069-1	Citric acid, monohydrate	Xi; R 36	< 2.5%
CAS: 67-63-0 EINECS: 200-661-7 EC Number: 603-117-00-0	Propan-2-ol	Xi, F; R 11-36-67	< 2.5%

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

3 Hazards identification

- **Hazard designation:** void
- **Information pertaining to particular dangers for man and environment** void

4 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** In case of persistent symptoms consult doctor.

5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** None
- **Special hazards caused by the material, its products of combustion or flue gases:**
Carbon monoxide and carbon dioxide
- **Protective equipment:** Put on breathing apparatus.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Person-related safety precautions:**
Avoid contact with eyes.

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Do not breathe vapours.

- **Measures for environmental protection:** Do not allow to enter drainage system, surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 Handling and storage

- **Handling**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Avoid breathing vapours.
Avoid contact with eyes.
Make sure that all applicable workplace limits are observed.
- **Information about protection against explosions and fires:**
The product forms flammable fumes when heated.
Keep ignition sources away - Do not smoke.
- **Storage**
- **Requirements to be met by storerooms and containers:**
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.

8 Exposure controls and personal protection

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

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

67-63-0 Propan-2-ol

OES (Great Britain)	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
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- **Additional information:** The lists that were valid during the compilation were used as basis.

- **Personal protective equipment**
- **General protective and hygienic measures**
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes.
Wash hands during breaks and at the end of the work.
- **Breathing equipment:**
Not necessary if room is well-ventilated.
If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.
- **Protection of hands:**
Protective gloves.
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**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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

9 Physical and chemical properties:

· General Information

Form:	Liquid
Colour:	Light blue
Smell:	Characteristic

· Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: Not determined

· **Flash point:** Not applicable

· **Self-inflammability:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive.

· **Density at 20°C** 0.95 - 1.05 g/cm³

· **Solubility in / Miscibility with Water:** Fully miscible

· **pH-value (1%) at 20°C:** 3.5 +/- 0,5

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:** Oxidizing agents
- **Dangerous products of decomposition:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **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.

12 Ecological information:

- **General notes:**
 Water hazard class 1 (Self-assessment): slightly hazardous for water.
 Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

13 Disposal considerations

- **Product:**
- **Recommendation** 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.

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

14 Transport information

- **Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**
- **ADR/RID-GGVS/E Class:** -

- **Maritime transport IMDG/GGVSea:**
- **IMDG/GGVSea Class:** -
- **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **Transport/Additional information:** Not dangerous according to the above specifications.

15 Regulatory information

- **Designation according to EC guidelines:** Observe all safety regulations when handling chemicals
- **Special designation of certain preparations:**
Safety data sheet available for professional user on request.
- **National regulations**
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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.

- **Relevant R-phrases**

The(se) R-phrase(s) are those of the ingredient(s) and do(es) NOT represent the classification of the preparation.

11 Highly flammable.

36 Irritating to eyes.

67 Vapours may cause drowsiness and dizziness.

- **Department issuing data specification sheet:**

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- **Contact:**

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