



RATIONAL special rinse agent for RATIONAL CleanJet® cleaning system

Safety Data Sheet

according to Regulation (EU) 2020/878

Date of issue: 26.10.2009

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Version / Replaced version: 3.1 / 2.0

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

1.1. Product identifier

Product form : Mixture
Product name : 9006.0137 RATIONAL special rinse agent for RATIONAL CleanJet® cleaning system
UFI : -

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Industrial use. Professional use.
Use of the substance/mixture : Clear rinsing agent / Wetting agent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier

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

1.4. Emergency telephone number

GBK GmbH : +49 (0)6132-84463 (24 h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

Not expected to present a significant hazard under anticipated conditions of normal use.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

EUH phrases : EUH208 - Contains 1,2-Benzisothiazol-3(2H)-one. May produce an allergic reaction.
EUH210 - Safety data sheet available on request.

Ingredients according to Regulation (EC) No 648/2004

non-ionic surfactants < 5%, BENZISOTHIAZOLINONE

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No 1272/2008 [CLP]
Propan-2-ol; isopropyl alcohol; isopropanol	(CAS-No.) 67-63-0 (EC-No.) 200-661-7 (EC Index-No.) 603-117-00-0 (REACH-No.) 01-2119457558-25-xxxx	≤ 2.5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Citric acid, monohydrate	(CAS-No.) 5949-29-1 (EC-No.) 201-069-1 (REACH-No.) 01-2119457026-42-xxxx	≤ 2.5	Eye Irrit. 2, H319 STOT SE 3, H335

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.

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First-aid measures after inhalation	: Allow breathing of fresh air.
First-aid measures after skin contact	: Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Rinse mouth. Drink plenty of water as a precaution. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: Not expected to present a significant hazard under anticipated conditions of normal use.
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4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing agents that suit the environment. Carbon dioxide. Dry extinguishing powder. For a significant fire: Water spray, alcohol resistant foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: The product is not flammable.
Hazardous decomposition products in case of fire	: Carbon monoxide and carbon dioxide.

5.3. Advice for firefighters

Precautionary measures fire	: In case of fire and/or explosion do not breathe fumes. Move containers away from the fire area if this can be done without risk.
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Provide adequate ventilation. Avoid contact with skin and eyes. Do not breathe gas/vapour/aerosol.
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6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	: Wear personal protective equipment. Use self-contained breathing apparatus.
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6.2. Environmental precautions

Reduce vapour with fog or fine water spray. Avoid sub-soil penetration. Prevent soil and water pollution. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Use appropriate ventilation. Absorb spillage to prevent material damage. Wipe up with absorbent material (for example cloth). Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Keep in suitable, closed containers for disposal. Dispose of in accordance with relevant local regulations.
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6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13. Recommended handling and storage conditions, see section 7.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Provide adequate ventilation. Wear personal protective equipment.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Take off contaminated clothing and wash it before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in original container. Keep container tightly closed. Store in a cool, well-ventilated place. Protect from heat and direct sunlight.
Information on mixed storage	: Keep away from food, drink and animal feedingstuffs.

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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Propan-2-ol (67-63-0)		
United Kingdom	Local name	Propan-2-ol
United Kingdom	WEL Short-term (mg/m³)	1250 mg/m³
United Kingdom	WEL Short-term (ppm)	500 ppm
United Kingdom	WEL Long-term (mg/m³)	999 mg/m³
United Kingdom	WEL Long-term (ppm)	400 ppm
Ireland	Local name	Isopropyl alcohol
Ireland	OEL (8 h ref) (ppm)	200 ppm
Ireland	OEL (15 min ref) (ppm)	400 ppm
Ireland	Notes	Sk

Propan-2-ol (67-63-0)	
DNEL/DMEL (Worker)	
Acute - systemic effects, inhalation	1000 mg/m³
Long-term - systemic effects, dermal	888 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	500 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, oral	51 mg/kg bodyweight/day
Acute - systemic effects, inhalation	178 mg/m³
Long-term - systemic effects, oral	26 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	89 mg/m³
Long-term - systemic effects, dermal	319 mg/kg bodyweight/day

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation to minimize vapour concentrations.

Hand protection:

Wear suitable gloves. (EN 374). Nitrile rubber – NBR, Recommended thickness of the material: ≥ 0.11 mm, e.g. KCL Dermatril® 740. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Chemical goggles or safety glasses (EN 166).

Skin and body protection:

Wear suitable protective clothing.

Respiratory protection:

Not necessary if room is well-ventilated.

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Light blue
Odour	: Characteristic
Melting point/freezing point	: No data available
Boiling point or initial boiling point and boiling range	: No data available
Flammability	: No data available
Lower and upper explosion limit	: No data available

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Flash point	: No data available
Auto-ignition temperature	: Product is not selfigniting.
Decomposition temperature	: No data available
pH	: 2.2 (20°C)
Kinematic viscosity	: No data available
Solubility	: Water: completely miscible
Partition coefficient n-octanol/water (log value)	: Not applicable
Vapour pressure	: No data available
Density and/or relative density	: 0.95-1.05 g/cm³ (20 °C)
Relative vapour density	: No data available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Oxidative properties	: Not classified as oxidising
Explosive properties	: Product is not explosive.

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

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 and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	: Not classified
Based on available data, the classification criteria are not met	

Propan-2-ol (67-63-0)	
LDLo oral human	3570 mg/kg
LD50 oral mouse	3600 mg/kg
LD50 oral rat	5045 mg/kg
LD50 oral rabbit	6410 mg/kg
LD50 dermal rabbit	12800-13400 mg/kg
LC50 inhalation rat	30-46.5 mg/m³/4 h

Citric acid, monohydrate (5949-29-1)	
LD50 oral rat	> 3000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation	: Not classified
Based on available data, the classification criteria are not met	
Serious eye damage/irritation	: Not classified
Based on available data, the classification criteria are not met	
Respiratory or skin sensitisation	: Contains 1,2-Benzisothiazol-3(2H)-one. May produce an allergic reaction.

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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
Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met

11.2. Information on other hazards

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
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SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

Propan-2-ol (67-63-0)	
LC50 fish	9640 mg/l 96 h, Pimephales promelas (OECD 203)
LC50 fish	8970 mg/l 48 h, Leuciscus idus
EC50 daphnia	13299 mg/l 48 h, Daphnia magna

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Dispose in a safe manner in accordance with local/national regulations.
Waste treatment methods	: Do not dispose of with domestic waste. Do not empty into drains.
Waste code number	: The valid EWC waste code numbers are source related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

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14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Changes compared to the previous version : Revised according to Regulation (EU) 2020/878

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	"International Maritime Dangerous Goods Code" for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)

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LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
STOT SE 3	Specific target organ toxicity - Single exposure, Category 3, Respiratory tract irritation
STOT SE 3	Specific target organ toxicity - Single exposure, Category 3, Narcotic effects
H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

SDS EU (REACH Annex II)

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.