

chemagic™ Kit Components

## chemagic Universal H96 Kit

Reviewed: 08-Jan-2026

Expiry: 27-Jan-2027

Product number: CMG-718

**Component name**

Magnetic Beads

Lysis Buffer Tissue

Lysis Buffer 1

Binding Buffer 2

Wash Buffer 3

Wash Buffer 4

Wash Buffer 5

Wash Buffer 6

Elution Buffer 7

Proteinase K

Purified Water

Poly(A) RNA

Poly(A) RNA Buffer

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# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.01.2024

Version number 19 (replaces version 18)

Revision: 24.01.2024

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

### · 1.1 Product identifier

· **Trade name:** Magnetic Beads

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

· **Sector of Use -**

· **Process category PROC20** Use of functional fluids in small devices

· **Application of the substance / the mixture** Product for analytical use

### · 1.3 Details of the supplier of the safety data sheet

#### · **Manufacturer/Supplier:**

Revvity chemagen Technologie GmbH

Arnold-Sommerfeld-Ring 2

52499 BAESWEILER

DEUTSCHLAND

e-mail: support.chemagen@revvity.com

### · **Further information obtainable from:** -

### · 1.4 Emergency telephone number:

CHEMTREC (within U.S.) 800 424-9300

CHEMTREC (from outside U.S.) +1-703-672-3887

## 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 GB CLP regulation.

### · 2.2 Label elements

#### · **Labelling according to Regulation (EC) No 1272/2008** Void

#### · **Hazard pictograms** Void

#### · **Signal word** Void

#### · **Hazard statements** Void

### · 2.3 Other hazards

#### · **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

### · 3.2 Mixtures

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:** Void

#### · **Additional information:**

brown suspension, particles containing iron oxide and polyvinyl alcohol, suspended in water

For the wording of the listed hazard phrases refer to section 16.

CAS: 7732-18-5	water, distilled, conductivity or of similar purity	>80%
EINECS: 231-791-2		GB

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Trade name: Magnetic Beads

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## 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 complaints.
  - **After skin contact:** Generally the product does not irritate the skin.
  - **After eye contact:** Rinse opened eye for several minutes under running water.
  - **After swallowing:** If symptoms persist 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:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Dilute with plenty of water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 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.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage:**
  - **Requirements to be met by storerooms and receptacles:** No special requirements.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

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## SECTION 8: Exposure controls/personal protection

### · 8.1 Control parameters

#### · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

#### · Additional information: The lists valid during the making were used as basis.

### · 8.2 Exposure controls

#### · Appropriate engineering controls No further data; see section 7.

#### · Individual protection measures, such as personal protective equipment

#### · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

#### · Respiratory protection: Not required.

#### · Hand protection

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.

#### · Eye/face protection Goggles recommended during refilling

## SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

#### · Physical state

Fluid

#### · Colour:

According to product specification

#### · Odour:

Characteristic

#### · Odour threshold:

Not determined.

#### · Melting point/freezing point:

Undetermined.

#### · Boiling point or initial boiling point and boiling range

100 °C

#### · Flammability

Not applicable.

#### · Lower and upper explosion limit

#### · Lower:

Not determined.

#### · Upper:

Not determined.

#### · Flash point:

Not applicable.

#### · Decomposition temperature:

Not determined.

#### · pH

Not determined.

#### · Viscosity:

Not determined.

#### · Kinematic viscosity

Not determined.

#### · Dynamic:

Not determined.

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· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	23 hPa
· <b>Density and/or relative density</b>	
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Solvent content:</b>	
· <b>Water:</b>	>80 %
· <b>Solids content:</b>	>0 - <20 %
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.
· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** 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.

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- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## \* SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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.

- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

## \* 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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:** Not hazardous for water.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

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## SECTION 14: Transport information

- |  |                 |
|--|-----------------|
| · 14.1 UN number or ID number<br>· ADR, ADN, IMDG, IATA                | not regulated   |
| · 14.2 UN proper shipping name<br>· ADR, ADN, IMDG, IATA               | not regulated   |
| · 14.3 Transport hazard class(es)<br>· ADR, ADN, IMDG, IATA<br>· Class | not regulated   |
| · 14.4 Packing group<br>· ADR, IMDG, IATA                              | not regulated   |
| · 14.5 Environmental hazards:  | Not applicable. |
| · 14.6 Special precautions for user                                    | Not applicable. |
| · 14.7 Maritime transport in bulk according to IMO instruments         | Not applicable. |
| · UN "Model Regulation":   | not regulated   |

## SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## SECTION 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.

- Department issuing SDS: Department of Production

· Contact: -

- Abbreviations and acronyms:

ADR: Accord relatif au transport international 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

- \* Data compared to the previous version altered.

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.02.2024

Version number 20 (replaces version 19)

Revision: 02.02.2024

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

- **1.1 Product identifier**
- **Trade name:** Lysis Buffer T
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use -**
- **Application of the substance / the mixture** Product for analytical use

- **1.3 Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Revvity chemagen Technologie GmbH  
Arnold-Sommerfeld-Ring 2  
52499 BAESWEILER  
DEUTSCHLAND  
e-mail: support.chemagen@revvity.com

- **Further information obtainable from:** -

- **1.4 Emergency telephone number:**

CHEMTREC (within U.S.) 800 424-9300

CHEMTREC (from outside U.S.) +1-703-672-3887

## \* 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 GB 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:**

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 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 151-21-3	sodium dodecyl sulphate	1-3%
EINECS: 205-788-1	◆ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319	

- **Additional information:**

For the wording of the listed hazard phrases refer to section 16.

CAS: 7732-18-5	water, distilled, conductivity or of similar purity	80-100%
EINECS: 231-791-2		

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Version number 20 (replaces version 19)

Revision: 02.02.2024

**Trade name: Lysis Buffer T**

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CAS: 77-86-1 EINECS: 201-064-4	trometamol	0.75-1.5%
CAS: 7647-14-5 EINECS: 231-598-3	sodium chloride	0.75-1.5%

## \* SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist 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:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 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.

## \* SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

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

## \* SECTION 8: Exposure controls/personal protection

### · 8.1 Control parameters

#### · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

#### · Additional information: The lists valid during the making were used as basis.

### · 8.2 Exposure controls

#### · Appropriate engineering controls No further data; see section 7.

#### · Individual protection measures, such as personal protective equipment

#### · General protective and hygienic measures: Wash hands before breaks and at the end of work.

#### · Respiratory protection: Not required.

#### · Hand protection

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.

#### · Eye/face protection Goggles recommended during refilling

## \* SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

#### · Physical state

Fluid

#### · Colour:

Colourless

#### · Odour:

Odourless

#### · Odour threshold:

Not determined.

#### · Melting point/freezing point:

0 °C

#### · Boiling point or initial boiling point and boiling range

100 °C

#### · Flammability

Not applicable.

#### · Lower and upper explosion limit

Not determined.

#### · Lower:

Not determined.

#### · Upper:

Not applicable.

#### · Flash point:

Not determined.

#### · Decomposition temperature:

7.1

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· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic at 20 °C:</b>	0.952 mPas
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	23 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.012 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Solvent content:</b>	
· <b>Water:</b>	80 - 100 %
· <b>Molecular weight</b>	18.02 g/mol
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.
· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.

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**Trade name:** Lysis Buffer T

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- **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:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### \* SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties**

None of the ingredients is listed.

### \* 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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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## \* SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## SECTION 14: Transport information

· <b>14.1 UN number or ID number</b>	
· ADR, ADN, IMDG, IATA	not regulated
· <b>14.2 UN proper shipping name</b>	
· ADR, ADN, IMDG, IATA	not regulated
· <b>14.3 Transport hazard class(es)</b>	
· ADR, ADN, IMDG, IATA	not regulated
· Class	not regulated
· <b>14.4 Packing group</b>	
· ADR, IMDG, IATA	not regulated
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>UN "Model Regulation":</b>	not regulated

## \* SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 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**  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.

(Contd. on page 7)  
GB

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

Printing date 02.02.2024

Version number 20 (replaces version 19)

Revision: 02.02.2024

**Trade name: Lysis Buffer T**

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H319 Causes serious eye irritation.

· **Department issuing SDS:** Department of Production

· **Contact:** -

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

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

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

· \* Data compared to the previous version altered.

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.10.2023

Version number 36 (replaces version 35)

Revision: 19.10.2023

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

### · 1.1 Product identifier

· Trade name: Lysis Buffer 1

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

· Sector of Use -

· Application of the substance / the mixture Product for analytical use

### · 1.3 Details of the supplier of the safety data sheet

#### · Manufacturer/Supplier:

Revvity chemagen Technologie GmbH

Arnold-Sommerfeld-Ring 2

52499 BAESWEILER

DEUTSCHLAND

e-mail: support.chemagen@revvity.com

### · Further information obtainable from: -

### · 1.4 Emergency telephone number:

CHEMTREC (within U.S.) 800 424-9300

CHEMTREC (from outside U.S.) +1-703-672-3887

## \* SECTION 2: Hazards identification

### · 2.1 Classification of the substance or mixture

#### · Classification according to Regulation (EC) No 1272/2008



Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

### · 2.2 Label elements

#### · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

#### · Hazard pictograms



GHS07

### · Signal word Warning

#### · Hazard-determining components of labelling:

guanidinium chloride

Isotridecylalcohol

#### · Hazard statements

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

#### · Precautionary statements

P280 Wear eye protection / face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)

GB

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

Printing date 19.10.2023

Version number 36 (replaces version 35)

Revision: 19.10.2023

## Trade name: Lysis Buffer 1

P332+P313

P501

If skin irritation occurs: Get medical advice/attention.

Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. of page 1)

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

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

### 3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

#### Dangerous components:

CAS: 50-01-1	guanidinium chloride	30-50%
EINECS: 200-002-3	! Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 9043-30-5	Isotridecylalcohol	0.75-1.5%
	! Acute Tox. 4, H302	

#### Additional information:

For the wording of the listed hazard phrases refer to section 16.

CAS: 7732-18-5	water, distilled, conductivity or of similar purity	40-60%
EINECS: 231-791-2		
CAS: 6381-92-6	Na□-EDTA Dyhydrate	1-3%
EINECS: 205-358-3		
CAS: 77-86-1	trometamol	0.75-1.5%
EINECS: 201-064-4		

## \* SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation: In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

#### After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Call for a doctor immediately.

### 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: Use fire extinguishing methods suitable to surrounding conditions.

### 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

(Contd. on page 3)

GB

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

Printing date 19.10.2023

Version number 36 (replaces version 35)

Revision: 19.10.2023

**Trade name: Lysis Buffer 1**

(Contd. of page 2)

- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

## \* **SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to section 13.
- **6.4 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.

## \* **SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

## \* **SECTION 8: Exposure controls/personal protection**

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as 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.
- **Respiratory protection:** Not required.
- **Hand protection**



Protective gloves

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

(Contd. on page 4)

GB

# Safety data sheet

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

Printing date 19.10.2023

Version number 36 (replaces version 35)

Revision: 19.10.2023

**Trade name: Lysis Buffer 1**

(Contd. of page 3)

*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.*

**· Eye/face protection**



*Tightly sealed goggles*

### \* SECTION 9: Physical and chemical properties

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

**· General Information**

**· Physical state**

Fluid

**· Colour:**

According to product specification

**· Odour:**

Characteristic

**· Odour threshold:**

Not determined.

**· Melting point/freezing point:**

Undetermined.

**· Boiling point or initial boiling point and boiling range**

Undetermined.  
Not applicable.

**· Flammability**

Not determined.

**· Lower and upper explosion limit**

Not determined.

**· Lower:**

Not determined.

**· Upper:**

Not determined.

**· Flash point:**

Not applicable.

**· Decomposition temperature:**

Not determined.

**· pH at 20 °C**

7.2

**· Viscosity:**

Not determined.

**· Kinematic viscosity**

Not determined.

**· Dynamic:**

Not determined.

**· Solubility**

Fully miscible.

**· water:**

Not determined.

**· Partition coefficient n-octanol/water (log value)**

Not determined.  
23 hPa

**· Vapour pressure at 20 °C:**

1.14 g/cm<sup>3</sup>

**· Density and/or relative density**

Not determined.

**· Density at 20 °C:**

Not determined.

**· Relative density**

Not determined.

**· Vapour density**

Not determined.

**· 9.2 Other information**

**· Appearance:**

Fluid

**· Form:**

**· Important information on protection of health and environment, and on safety.**

Product is not selfigniting.

(Contd. on page 5)

GB

# Safety data sheet

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

Printing date 19.10.2023

Version number 36 (replaces version 35)

Revision: 19.10.2023

**Trade name:** Lysis Buffer 1

(Contd. of page 4)

· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Solvent content:</b>	
· <b>Water:</b>	40 - 60 %
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.
<b>· Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** 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:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if swallowed.

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

<b>50-01-1 guanidinium chloride</b>
-------------------------------------

Oral   LD50   475 mg/kg (rat)
-------------------------------

- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.
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GB

(Contd. on page 6)

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

Printing date 19.10.2023

Version number 36 (replaces version 35)

Revision: 19.10.2023

**Trade name: Lysis Buffer 1**

(Contd. of page 5)

**\* 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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**SECTION 14: Transport information**

· <b>14.1 UN number or ID number</b>	
· ADR, ADN, IMDG, IATA	not regulated
· <b>14.2 UN proper shipping name</b>	
· ADR, ADN, IMDG, IATA	not regulated
· <b>14.3 Transport hazard class(es)</b>	
· ADR, ADN, IMDG, IATA	not regulated
· Class	not regulated
· <b>14.4 Packing group</b>	
· ADR, IMDG, IATA	not regulated
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>UN "Model Regulation":</b>	not regulated

GB

(Contd. on page 7)

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

Printing date 19.10.2023

Version number 36 (replaces version 35)

Revision: 19.10.2023

**Trade name: Lysis Buffer 1**

(Contd. of page 6)

**\* SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**\* SECTION 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**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

- **Department issuing SDS: Department of Production**

- **Contact:** -

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

Acute Tox. 4: Acute toxicity – Category 4

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

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 22 (replaces version 21)

Revision: 03.11.2023

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

### · 1.1 Product identifier

· **Trade name:** *Binding Buffer 2*

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

· **Sector of Use -**

· **Application of the substance / the mixture** Product for analytical use

### · 1.3 Details of the supplier of the safety data sheet

#### · **Manufacturer/Supplier:**

Revvity chemagen Technologie GmbH

Arnold-Sommerfeld-Ring 2

52499 BAESWEILER

DEUTSCHLAND

e-mail: support.chemagen@revvity.com

### · **Further information obtainable from:** -

### · 1.4 Emergency telephone number:

CHEMTREC (within U.S.) 800 424-9300

CHEMTREC (from outside U.S.) +1-703-672-3887

## \* SECTION 2: Hazards identification

### · 2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008**



flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



Acute Tox. 4 H302 Harmful if swallowed.

### · 2.2 Label elements

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

### · Hazard pictograms



GHS02



GHS07

### · **Signal word** Danger

### · **Hazard-determining components of labelling:**

sodium perchlorate

### · **Hazard statements**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

(Contd. on page 2)

GB

# Safety data sheet

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

Printing date 03.11.2023

Version number 22 (replaces version 21)

Revision: 03.11.2023

**Trade name: Binding Buffer 2**

(Contd. of page 1)

**· Precautionary statements**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.
- P240 Ground and bond container and receiving equipment.
- P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**· 2.3 Other hazards****· Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.**\* SECTION 3: Composition/information on ingredients****· 3.2 Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.**· Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6	ethanol  Flam. Liq. 2, H225	45-65%
CAS: 7601-89-0 EINECS: 231-511-9	sodium perchlorate  Ox. Sol. 1, H271;  Acute Tox. 4, H302 Specific concentration limit: Ox. Sol. 1; H271: C ≥ 20 %	20-40%
CAS: 64-19-7 EINECS: 200-580-7	acetic acid  Flam. Liq. 3, H226;  Skin Corr. 1A, H314;  Acute Tox. 4, H312 Specific concentration limits: Skin Corr. 1A; H314: C ≥ 90 % Skin Corr. 1B; H314: 25 % ≤ C < 90 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %	0.75-1.5%

**· Additional information:**

For the wording of the listed hazard phrases refer to section 16.

CAS: 127-09-3 EINECS: 204-823-8	sodium acetate	2.5-10%
CAS: 7732-18-5 EINECS: 231-791-2	water, distilled, conductivity or of similar purity	0-20%

**\* SECTION 4: First aid measures****· 4.1 Description of first aid measures****· General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:** Immediately rinse with water.· **After eye contact:** Rinse opened eye for several minutes under running water.

(Contd. on page 3)

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 22 (replaces version 21)

Revision: 03.11.2023

**Trade name: Binding Buffer 2**

(Contd. of page 2)

- **After swallowing:** Call for a doctor immediately.
- **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:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

## \* SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to section 13.  
Ensure adequate ventilation.
- **6.4 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.

## \* SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

GB

(Contd. on page 4)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 22 (replaces version 21)

Revision: 03.11.2023

Trade name: Binding Buffer 2

(Contd. of page 3)

## SECTION 8: Exposure controls/personal protection

### · 8.1 Control parameters

#### · Ingredients with limit values that require monitoring at the workplace:

##### 64-17-5 ethanol

WEL Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

##### 64-19-7 acetic acid

WEL Short-term value: 50 mg/m<sup>3</sup>, 20 ppm  
Long-term value: 25 mg/m<sup>3</sup>, 10 ppm

· Additional information: The lists valid during the making were used as basis.

### · 8.2 Exposure controls

· Appropriate engineering controls No further data; see section 7.

· Individual protection measures, such as 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.

· Respiratory protection: Not required.

· Hand protection



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.

#### · Eye/face protection



Tightly sealed goggles

## SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

#### · Physical state

Fluid

(Contd. on page 5)

GB

# Safety data sheet

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

Printing date 03.11.2023

Version number 22 (replaces version 21)

Revision: 03.11.2023

**Trade name: Binding Buffer 2**

(Contd. of page 4)

· <b>Colour:</b>	According to product specification
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Boiling point or initial boiling point and boiling range</b>	78 °C (64-17-5 ethanol)
· <b>Flammability</b>	Highly flammable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	3.5 Vol %
· <b>Upper:</b>	15 Vol %
· <b>Flash point:</b>	13 °C (64-17-5 ethanol)
· <b>Auto-ignition temperature:</b>	425 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH at 20 °C</b>	5.8
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	59 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.40765 g/cm³
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	45 - 65 %
· <b>Water:</b>	0 - 20 %
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.
· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Highly flammable liquid and vapour.
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void

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· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

## SECTION 10: Stability and reactivity

- 10.1 Reactivity 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: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

## SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- Acute toxicity Harmful if swallowed.
- 11.2 Information on other hazards

### · Endocrine disrupting properties

None of the ingredients is listed.

## 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.
- 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- 12.6 Endocrine disrupting properties  
The product does not contain substances with endocrine disrupting properties.
- 12.7 Other adverse effects
- Additional ecological information:
- General notes:  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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

## \* **SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation**  
*Must not be disposed together with household garbage. Do not allow product to reach sewage system.*
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## \* **SECTION 14: Transport information**

· <b>14.1 UN number or ID number</b>	
· <b>ADR, IMDG, IATA</b>	UN1170
· <b>14.2 UN proper shipping name</b>	
· <b>ADR</b>	1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
· <b>IMDG</b>	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
· <b>IATA</b>	ETHANOL SOLUTION
· <b>14.3 Transport hazard class(es)</b>	
· <b>ADR, IMDG, IATA</b>	
	
· <b>Class</b>	3 Flammable liquids.
· <b>Label</b>	3
· <b>14.4 Packing group</b>	
· <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Warning: Flammable liquids.
· <b>Hazard identification number (Kemler code):</b>	33
· <b>EMS Number:</b>	F-E,S-D
· <b>Stowage Category</b>	A
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.

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<b>· Transport/Additional information:</b>	
· ADR	1L
· Limited quantities (LQ)	Code: E2
· Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	1L
· Limited quantities (LQ)	Code: E2
· Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II

| \* | **SECTION 15: Regulatory information** |
| - **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture** - **Directive 2012/18/EU** - **Named dangerous substances - ANNEX I** None of the ingredients is listed. - **Seveso category P5c FLAMMABLE LIQUIDS** - **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t - **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t - **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out. | |
| **SECTION 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**   - H225 Highly flammable liquid and vapour.   - H226 Flammable liquid and vapour.   - H271 May cause fire or explosion; strong oxidiser.   - H302 Harmful if swallowed.   - H312 Harmful in contact with skin.   - H314 Causes severe skin burns and eye damage. - **Department issuing SDS:** Department of Production - **Contact:** - - **Abbreviations and acronyms:**   - ADR: Accord relatif au transport international 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 |
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CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Ox. Sol. 1: Oxidizing solids – Category 1

Acute Tox. 4: Acute toxicity – Category 4

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

\* Data compared to the previous version altered.

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

- **1.1 Product identifier**
- **Trade name:** Wash Buffer 3
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use -**
- **Application of the substance / the mixture** Product for analytical use

- **1.3 Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Revvity chemagen Technologie GmbH  
Arnold-Sommerfeld-Ring 2  
52499 BAESWEILER  
DEUTSCHLAND  
e-mail: support.chemagen@revvity.com

- **Further information obtainable from:** -

- **1.4 Emergency telephone number:**

CHEMTREC (within U.S.) 800 424-9300

CHEMTREC (from outside U.S.) +1-703-672-3887

## \* SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**



flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

- **Hazard pictograms**



GHS02

- **Signal word** Warning

- **Hazard statements**

H226 Flammable liquid and vapour.

- **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

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

- **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6	ethanol  Flam. Liq. 2, H225	20-40%
CAS: 7601-89-0 EINECS: 231-511-9	sodium perchlorate  Ox. Sol. 1, H271;  Acute Tox. 4, H302 Specific concentration limit: Ox. Sol. 1; H271: C ≥ 20 %	≥10-<20%
CAS: 78-93-3 EINECS: 201-159-0	butanone  Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	0.25-0.7%

- **Additional information:**

For the wording of the listed hazard phrases refer to section 16.

CAS: 7732-18-5 EINECS: 231-791-2	water, distilled, conductivity or of similar purity	40-60%
CAS: 127-09-3 EINECS: 204-823-8	sodium acetate	1-3%
CAS: 9005-64-5 NLP: 500-018-3	Polysorbate 20	0.75-1.5%

## \* **SECTION 4: First aid measures**

- **4.1 Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately rinse with water.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist 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:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

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- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

*	<h2>SECTION 6: Accidental release measures</h2> <p><b>6.1 Personal precautions, protective equipment and emergency procedures</b> Wear protective equipment. Keep unprotected persons away.</p> <p><b>6.2 Environmental precautions:</b> Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.</p> <p><b>6.3 Methods and material for containment and cleaning up:</b> Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13. Ensure adequate ventilation.</p> <p><b>6.4 Reference to other sections</b> See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.</p>
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*	<h2>SECTION 7: Handling and storage</h2> <p><b>7.1 Precautions for safe handling</b> No special precautions are necessary if used correctly.</p> <p><b>Information about fire - and explosion protection:</b> Keep ignition sources away - Do not smoke. Protect against electrostatic charges.</p> <p><b>7.2 Conditions for safe storage, including any incompatibilities</b></p> <p><b>Storage:</b></p> <p><b>Requirements to be met by storerooms and receptacles:</b> No special requirements</p> <p><b>Information about storage in one common storage facility:</b> Not required.</p> <p><b>Further information about storage conditions:</b> Keep container tightly sealed.</p> <p><b>7.3 Specific end use(s)</b> No further relevant information available.</p>
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*	<h2>SECTION 8: Exposure controls/personal protection</h2> <p><b>8.1 Control parameters</b></p> <p><b>Ingredients with limit values that require monitoring at the workplace:</b></p> <p><b>64-17-5 ethanol</b></p> <table border="1"><tr><td>WEL</td><td>Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm</td></tr></table> <p><b>78-93-3 butanone</b></p> <table border="1"><tr><td>WEL</td><td>Short-term value: 899 mg/m<sup>3</sup>, 300 ppm Long-term value: 600 mg/m<sup>3</sup>, 200 ppm Sk, BMGV</td></tr></table> <p><b>Ingredients with biological limit values:</b></p> <p><b>78-93-3 butanone</b></p> <table border="1"><tr><td>BMGV</td><td>70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one</td></tr></table>	WEL	Long-term value: 1920 mg/m <sup>3</sup> , 1000 ppm	WEL	Short-term value: 899 mg/m <sup>3</sup> , 300 ppm Long-term value: 600 mg/m <sup>3</sup> , 200 ppm Sk, BMGV	BMGV	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one
WEL	Long-term value: 1920 mg/m <sup>3</sup> , 1000 ppm						
WEL	Short-term value: 899 mg/m <sup>3</sup> , 300 ppm Long-term value: 600 mg/m <sup>3</sup> , 200 ppm Sk, BMGV						
BMGV	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one						

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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Hand protection**



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.

· **Eye/face protection**



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

· <b>9.1 Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Physical state</b>	Fluid
· <b>Colour:</b>	According to product specification
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Boiling point or initial boiling point and boiling range</b>	78 °C
· <b>Flammability</b>	Flammable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Flash point:</b>	27 °C
· <b>Auto-ignition temperature:</b>	425 °C

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· <b>Decomposition temperature:</b>	Not determined.
· <b>pH at 20 °C</b>	5.4
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	59 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.05 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
 · <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	20 - 40 %
· <b>Water:</b>	40 - 60 %
· <b>VOC (EC)</b>	20 - 40 %
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.
 · <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Flammable liquid and vapour.
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

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## SECTION 10: Stability and reactivity

- **10.1 Reactivity** 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:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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.
- **11.2 Information on other hazards**

### · Endocrine disrupting properties

78-93-3 butanone

List II

## 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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## SECTION 14: Transport information

· <b>14.1 UN number or ID number</b>	
· <b>ADR, IMDG, IATA</b>	UN1170
· <b>14.2 UN proper shipping name</b>	
· <b>ADR</b>	1170 ETHANOL (ETHYL ALCOHOL) solution
· <b>IMDG</b>	ETHANOL (ETHYL ALCOHOL) solution
· <b>IATA</b>	ETHANOL solution

### · 14.3 Transport hazard class(es)

- **ADR, IMDG, IATA**



· <b>Class</b>	3 Flammable liquids.
· <b>Label</b>	3

### · 14.4 Packing group

- **ADR, IMDG, IATA**

III

### · 14.5 Environmental hazards:

Not applicable.

### · 14.6 Special precautions for user

Warning: Flammable liquids.

#### · Hazard identification number (Kemler code): 30

#### · EMS Number:

F-E,S-D

#### · Stowage Category

A

### · 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

### · Transport/Additonal information:

#### · ADR

5L

#### · Limited quantities (LQ)

Code: E1

#### · Excepted quantities (EQ)

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

#### · Transport category

3

#### · Tunnel restriction code

D/E

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· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 1170 ETHANOL (ETHYL ALCOHOL) SOLUTION, 3, III

## \* SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category P5c FLAMMABLE LIQUIDS**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 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

- H225 Highly flammable liquid and vapour.  
H271 May cause fire or explosion; strong oxidiser.  
H302 Harmful if swallowed.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
EUH066 Repeated exposure may cause skin dryness or cracking.

### · Department issuing SDS: Department of Production

### · Contact: -

### · Abbreviations and acronyms:

ADR: Accord relatif au transport international 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)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Ox. Sol. 1: Oxidizing solids – Category 1

Acute Tox. 4: Acute toxicity – Category 4

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.

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 47 (replaces version 46)

Revision: 03.11.2023

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

- **1.1 Product identifier**
- **Trade name:** Wash Buffer 4
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use -**
- **Application of the substance / the mixture** Product for analytical use

- **1.3 Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Revvity chemagen Technologie GmbH  
Arnold-Sommerfeld-Ring 2  
52499 BAESWEILER  
DEUTSCHLAND  
e-mail: support.chemagen@revvity.com

- **Further information obtainable from:** -

- **1.4 Emergency telephone number:**

CHEMTREC (within U.S.) 800 424-9300

CHEMTREC (from outside U.S.) +1-703-672-3887

## \* SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**



flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

- **Hazard pictograms**



GHS02

- **Signal word** Warning

- **Hazard statements**

H226 Flammable liquid and vapour.

- **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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GB

# Safety data sheet

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

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Version number 47 (replaces version 46)

Revision: 03.11.2023

**Trade name: Wash Buffer 4**

(Contd. of page 1)

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

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

- **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6	ethanol Flam. Liq. 2, H225	20-40%
CAS: 7601-89-0 EINECS: 231-511-9	sodium perchlorate Ox. Sol. 1, H271; Acute Tox. 4, H302 Specific concentration limit: Ox. Sol. 1; H271: C ≥ 20 %	≥10-<20%
CAS: 78-93-3 EINECS: 201-159-0	butanone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	0.25-0.7%

- **Additional information:**

For the wording of the listed hazard phrases refer to section 16.

CAS: 7732-18-5 EINECS: 231-791-2	water, distilled, conductivity or of similar purity	40-60%
CAS: 127-09-3 EINECS: 204-823-8	sodium acetate	1-3%

### \* **SECTION 4: First aid measures**

- **4.1 Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately rinse with water.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist 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:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

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# Safety data sheet

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**Trade name: Wash Buffer 4**

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- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

*	<b>SECTION 6: Accidental release measures</b>
	<b>6.1 Personal precautions, protective equipment and emergency procedures</b> Wear protective equipment. Keep unprotected persons away.
	<b>6.2 Environmental precautions:</b> Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.
	<b>6.3 Methods and material for containment and cleaning up:</b> Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13. Ensure adequate ventilation.
	<b>6.4 Reference to other sections</b> See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

*	<b>SECTION 7: Handling and storage</b>
	<b>7.1 Precautions for safe handling</b> No special precautions are necessary if used correctly.
	<b>Information about fire - and explosion protection:</b> Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
	<b>7.2 Conditions for safe storage, including any incompatibilities</b>
	<b>Storage:</b> <b>Requirements to be met by storerooms and receptacles:</b> No special requirements <b>Information about storage in one common storage facility:</b> Not required. <b>Further information about storage conditions:</b> Keep container tightly sealed.
	<b>7.3 Specific end use(s)</b> No further relevant information available.

*	<b>SECTION 8: Exposure controls/personal protection</b>
	<b>8.1 Control parameters</b>
	<b>Ingredients with limit values that require monitoring at the workplace:</b>
	<b>64-17-5 ethanol</b>
	WEL Long-term value: 1920 mg/m <sup>3</sup> , 1000 ppm
	<b>78-93-3 butanone</b>
	WEL Short-term value: 899 mg/m <sup>3</sup> , 300 ppm Long-term value: 600 mg/m <sup>3</sup> , 200 ppm Sk, BMGV
	<b>Ingredients with biological limit values:</b>
	<b>78-93-3 butanone</b>
	BMGV 70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one

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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Hand protection**



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.

· **Eye/face protection**



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

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

· **General Information**

· **Physical state**

Fluid

· **Colour:**

Clear

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Undetermined.

· **Boiling point or initial boiling point and boiling range**

78 °C

· **Flammability**

Flammable.

· **Lower and upper explosion limit**

· **Lower:**

3.5 Vol %

· **Upper:**

15 Vol %

· **Flash point:**

27 °C

· **Auto-ignition temperature:**

425 °C

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· <b>Decomposition temperature:</b>	Not determined.
· <b>pH at 20 °C</b>	5.4
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	59 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.05 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
 · <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	20 - 40 %
· <b>Water:</b>	40 - 60 %
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.
 · <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Flammable liquid and vapour.
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

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## SECTION 10: Stability and reactivity

- **10.1 Reactivity** 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:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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.

### · 11.2 Information on other hazards

#### · Endocrine disrupting properties

78-93-3 butanone

List II

## 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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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# Safety data sheet

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

Printing date 03.11.2023

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Revision: 03.11.2023

**Trade name: Wash Buffer 4**

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### **SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### **SECTION 14: Transport information**

· <b>14.1 UN number or ID number</b>	
· <b>ADR, IMDG, IATA</b>	UN1170
· <b>14.2 UN proper shipping name</b>	
· <b>ADR</b>	1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
· <b>IMDG</b>	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
· <b>IATA</b>	ETHANOL SOLUTION
· <b>14.3 Transport hazard class(es)</b>	
· <b>ADR, IMDG, IATA</b>	
	
· <b>Class</b>	3 Flammable liquids.
· <b>Label</b>	3
· <b>14.4 Packing group</b>	
· <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Warning: Flammable liquids.
· <b>Hazard identification number (Kemler code):</b>	30
· <b>EMS Number:</b>	F-E,S-D
· <b>Stowage Category</b>	A
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· <b>Transport category</b>	3

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· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III

\*

## SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Directive 2012/18/EU
  - Named dangerous substances - ANNEX I None of the ingredients is listed.
  - Seveso category P5c FLAMMABLE LIQUIDS
  - Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
  - Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## SECTION 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

- H225 Highly flammable liquid and vapour.  
H271 May cause fire or explosion; strong oxidiser.  
H302 Harmful if swallowed.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
EUH066 Repeated exposure may cause skin dryness or cracking.

### · Department issuing SDS: Department of Production

### · Contact: -

### · Abbreviations and acronyms:

ADR: Accord relatif au transport international 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Ox. Sol. 1: Oxidizing solids – Category 1

Acute Tox. 4: Acute toxicity – Category 4

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.

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 52 (replaces version 51)

Revision: 03.11.2023

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

- **1.1 Product identifier**
- **Trade name:** Wash Buffer 5
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use -**
- **Application of the substance / the mixture** Product for analytical use

- **1.3 Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Revvity chemagen Technologie GmbH  
Arnold-Sommerfeld-Ring 2  
52499 BAESWEILER  
DEUTSCHLAND  
e-mail: support.chemagen@revvity.com

- **Further information obtainable from:** -

- **1.4 Emergency telephone number:**

CHEMTREC (within U.S.) 800 424-9300

CHEMTREC (from outside U.S.) +1-703-672-3887

## \* SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**



flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

- **Hazard pictograms**



GHS02

- **Signal word** Danger

- **Hazard statements**

H225 Highly flammable liquid and vapour.

- **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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Version number 52 (replaces version 51)

Revision: 03.11.2023

**Trade name: Wash Buffer 5**

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

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

- **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6	ethanol	 Flam. Liq. 2, H225	60-80%
-----------------------------------	---------	--	--------

- **Additional information:**

For the wording of the listed hazard phrases refer to section 16.

CAS: 7732-18-5 EINECS: 231-791-2	water, distilled, conductivity or of similar purity	20-40%
-------------------------------------	---	--------

## \* **SECTION 4: First aid measures**

- **4.1 Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately rinse with water.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist 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:**

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

- **5.3 Advice for firefighters**

· **Protective equipment:** No special measures required.

## \* **SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **6.2 Environmental precautions:**

Dilute with plenty of water.

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

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Version number 52 (replaces version 51)

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**Trade name: Wash Buffer 5**

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**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

**6.4 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.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling** No special precautions are necessary if used correctly.**Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

**7.2 Conditions for safe storage, including any incompatibilities****Storage:**

**Requirements to be met by storerooms and receptacles:** Store in a cool location.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

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

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****64-17-5 ethanol**

WEL Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

**Additional information:** The lists valid during the making were used as basis.

**8.2 Exposure controls**

**Appropriate engineering controls** No further data; see section 7.

**Individual protection measures, such as personal protective equipment**

**General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

**Respiratory protection:** Not required.

**Hand protection**



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

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Trade name: Wash Buffer 5

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**· 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.

**· Eye/face protection**

Tightly sealed goggles

## \* SECTION 9: Physical and chemical properties

**· 9.1 Information on basic physical and chemical properties****· General Information****· Physical state**

Fluid

**· Colour:**

According to product specification

**· Odour:**

Characteristic

**· Odour threshold:**

Not determined.

**· Melting point/freezing point:**

Undetermined.

**· Boiling point or initial boiling point and boiling range**

78 °C

**· Flammability**

Highly flammable.

**· Lower and upper explosion limit**

3.5 Vol %

**· Lower:**

15 Vol %

**· Upper:**

18 °C

**· Flash point:**

425 °C

**· Auto-ignition temperature:**

Not determined.

**· Decomposition temperature:**

Not determined.

**· pH**

Not determined.

**· Viscosity:**

Not determined.

**· Kinematic viscosity**

Not determined.

**· Dynamic:**

Not determined.

**· Solubility****· water:**

Fully miscible.

**· Partition coefficient n-octanol/water (log value)**

Not determined.

**· Vapour pressure at 20 °C:**

59 hPa

**· Density and/or relative density**0.88 g/cm<sup>3</sup>**· Density at 20 °C:**

Not determined.

**· Relative density**

Not determined.

**· Vapour density**

Not determined.

**· 9.2 Other information****· Appearance:**

Fluid

**· Form:**

(Contd. on page 5)

GB

# Safety data sheet

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

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**Trade name:** Wash Buffer 5

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<b>Important information on protection of health and environment, and on safety.</b>	
<b>Ignition temperature:</b>	Product is not selfigniting.
<b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
<b>Solvent content:</b>	
<b>Organic solvents:</b>	60 - 80 %
<b>Water:</b>	20 - 40 %
<b>Change in condition</b>	
<b>Evaporation rate</b>	Not determined.
<b>Information with regard to physical hazard classes</b>	
<b>Explosives</b>	Void
<b>Flammable gases</b>	Void
<b>Aerosols</b>	Void
<b>Oxidising gases</b>	Void
<b>Gases under pressure</b>	Void
<b>Flammable liquids</b>	Highly flammable liquid and vapour.
<b>Flammable solids</b>	Void
<b>Self-reactive substances and mixtures</b>	Void
<b>Pyrophoric liquids</b>	Void
<b>Pyrophoric solids</b>	Void
<b>Self-heating substances and mixtures</b>	Void
<b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
<b>Oxidising liquids</b>	Void
<b>Oxidising solids</b>	Void
<b>Organic peroxides</b>	Void
<b>Corrosive to metals</b>	Void
<b>Desensitised explosives</b>	Void

## SECTION 10: Stability and reactivity

- 10.1 Reactivity** 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:** No further relevant information available.
- 10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- Acute toxicity** Based on available data, the classification criteria are not met.
- Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

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# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 52 (replaces version 51)

Revision: 03.11.2023

**Trade name: Wash Buffer 5**

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- **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.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

## \* 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.

- **12.5 Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

- **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

- **12.7 Other adverse effects**

- **Additional ecological information:**

- **General notes:**

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

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

## \* SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

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

- **Uncleaned packaging:**

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

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## \* SECTION 14: Transport information

- **14.1 UN number or ID number**

**ADR, IMDG, IATA** UN1170

- **14.2 UN proper shipping name**

**ADR** 1170 ETHANOL SOLUTION (ETHYL ALCOHOL  
SOLUTION)

**IMDG** ETHANOL SOLUTION (ETHYL ALCOHOL  
SOLUTION)

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GB

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<b>IATA</b>	ETHANOL SOLUTION
<b>14.3 Transport hazard class(es)</b>	
<b>ADR, IMDG, IATA</b>	
	
<b>Class</b>	3 Flammable liquids.
<b>Label</b>	3
<b>14.4 Packing group</b>	
<b>ADR, IMDG, IATA</b>	II
<b>14.5 Environmental hazards:</b>	
<b>Marine pollutant:</b>	No
<b>14.6 Special precautions for user</b>	Warning: Flammable liquids.
<b>Hazard identification number (Kemler code):</b>	33
<b>EMS Number:</b>	F-E,S-D
<b>Stowage Category</b>	A
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
<b>Transport/Additional information:</b>	
<b>ADR</b>	
<b>Limited quantities (LQ)</b>	1L
<b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>Transport category</b>	2
<b>Tunnel restriction code</b>	D/E
<b>IMDG</b>	
<b>Limited quantities (LQ)</b>	1L
<b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>UN "Model Regulation":</b>	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II

*	<b>SECTION 15: Regulatory information</b>
<ul style="list-style-type: none"> <li><b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b></li> <li><b>Directive 2012/18/EU</b></li> <li><b>Named dangerous substances - ANNEX I</b> None of the ingredients is listed.</li> <li><b>Seveso category P5c FLAMMABLE LIQUIDS</b></li> <li><b>Qualifying quantity (tonnes) for the application of lower-tier requirements</b> 5,000 t</li> <li><b>Qualifying quantity (tonnes) for the application of upper-tier requirements</b> 50,000 t</li> </ul>	
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GB	

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

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

**SECTION 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**

H225 Highly flammable liquid and vapour.

- **Department issuing SDS:** Department of Production

- **Contact:** -

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

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

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 2 (replaces version 1)

Revision: 03.11.2023

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

- **1.1 Product identifier**
- **Trade name:** Wash Buffer 6
- **CAS Number:**  
7732-18-5
- **EC number:**  
231-791-2
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** -
- **Application of the substance / the mixture** Product for analytical use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Revvity chemagen Technologie GmbH  
Arnold-Sommerfeld-Ring 2  
52499 BAESWEILER  
DEUTSCHLAND  
e-mail: support.chemagen@revvity.com
- **Further information obtainable from:** -
- **1.4 Emergency telephone number:**  
CHEMTREC (within U.S.) 800 424-9300  
CHEMTREC (from outside U.S.) +1-703-672-3887

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The substance is not classified, according to the GB CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

- **3.1 Substances**
- **CAS No. Description**  
7732-18-5 water, distilled, conductivity or of similar purity
- **Identification number(s)**
- **EC number:** 231-791-2

## SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** No special measures required.

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Trade name: Wash Buffer 6

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- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist 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:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Dilute with plenty of water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 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.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**  
**Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.

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# Safety data sheet

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

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**Trade name: Wash Buffer 6**

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- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Hand protection**  
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.
- **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/face protection** Goggles recommended during refilling

### \* SECTION 9: Physical and chemical properties

· <b>9.1 Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Physical state</b>	Fluid
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Odourless
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	0 °C
· <b>Boiling point or initial boiling point and boiling range</b>	100 °C
· <b>Flammability</b>	Not applicable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Flash point:</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic at 20 °C:</b>	0.952 mPas
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	23 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1 g/cm³
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.

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Revision: 03.11.2023

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· <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Not determined.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Water:</b>	80 - 100 %
· <b>Molecular weight</b>	18.02 g/mol
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.
· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** 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:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

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Version number 2 (replaces version 1)

Revision: 03.11.2023

## Trade name: Wash Buffer 6

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- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties**

Substance is not listed.

## 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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:** Not hazardous for water.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## SECTION 14: Transport information

- |  |               |
|--|---------------|
| · <b>14.1 UN number or ID number</b>     |               |
| · ADR, ADN, IMDG, IATA                   | not regulated |
| · <b>14.2 UN proper shipping name</b>    |               |
| · ADR, ADN, IMDG, IATA                   | not regulated |
| · <b>14.3 Transport hazard class(es)</b> |               |
| · ADR, ADN, IMDG, IATA                   |               |
| · Class                                  | not regulated |

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· <b>14.4 Packing group</b>	not regulated
· <b>ADR, IMDG, IATA</b>	
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>UN "Model Regulation":</b>	not regulated

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 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.

- **Department issuing SDS:** Department of Production

- **Contact:** -

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 62 (replaces version 61)

Revision: 03.11.2023

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

- **1.1 Product identifier**
- **Trade name:** Elution Buffer 7
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** -
- **Application of the substance / the mixture** Product for analytical use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Revvity chemagen Technologie GmbH  
Arnold-Sommerfeld-Ring 2  
52499 BAESWEILER  
DEUTSCHLAND  
e-mail: support.chemagen@revvity.com
- **Further information obtainable from:** -
- **1.4 Emergency telephone number:**  
CHEMTREC (within U.S.) 800 424-9300  
CHEMTREC (from outside U.S.) +1-703-672-3887

## \* 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 GB CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **Additional information:**  
For the wording of the listed hazard phrases refer to section 16.

CAS: 7732-18-5 EINECS: 231-791-2	water, distilled, conductivity or of similar purity	80-100%
CAS: 77-86-1 EINECS: 201-064-4	trometamol	0.75-1.5%

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# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 62 (replaces version 61)

Revision: 03.11.2023

Trade name: Elution Buffer 7

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## 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 complaints.
  - **After skin contact:** Generally the product does not irritate the skin.
  - **After eye contact:** Rinse opened eye for several minutes under running water.
  - **After swallowing:** If symptoms persist 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:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Dilute with plenty of water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 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.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage:**
  - **Requirements to be met by storerooms and receptacles:** No special requirements.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

GB

(Contd. on page 3)

# Safety data sheet

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Printing date 03.11.2023

Version number 62 (replaces version 61)

Revision: 03.11.2023

Trade name: Elution Buffer 7

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## SECTION 8: Exposure controls/personal protection

### · 8.1 Control parameters

#### · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

#### · Additional information: The lists valid during the making were used as basis.

### · 8.2 Exposure controls

#### · Appropriate engineering controls No further data; see section 7.

#### · Individual protection measures, such as personal protective equipment

#### · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

#### · Respiratory protection: Not required.

#### · Hand protection

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.

#### · Eye/face protection Goggles recommended during refilling

## SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

#### · Physical state

Fluid

#### · Colour:

According to product specification

#### · Odour:

Characteristic

#### · Odour threshold:

Not determined.

#### · Melting point/freezing point:

Undetermined.

#### · Boiling point or initial boiling point and boiling range

100 °C

#### · Flammability

Not applicable.

#### · Lower and upper explosion limit

#### · Lower:

Not determined.

#### · Upper:

Not determined.

#### · Flash point:

Not applicable.

#### · Decomposition temperature:

Not determined.

#### · pH

Not determined.

#### · Viscosity:

Not determined.

#### · Kinematic viscosity

Not determined.

#### · Dynamic:

Not determined.

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GB

# Safety data sheet

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

Printing date 03.11.2023

Version number 62 (replaces version 61)

Revision: 03.11.2023

**Trade name: Elution Buffer 7**

(Contd. of page 3)

<b>· Solubility</b>	
<b>· water:</b>	Fully miscible.
<b>· Partition coefficient n-octanol/water (log value)</b>	Not determined.
<b>· Vapour pressure at 20 °C:</b>	23 hPa
<b>· Density and/or relative density</b>	
<b>· Density:</b>	Not determined.
<b>· Relative density</b>	Not determined.
<b>· Vapour density</b>	Not determined.
<b>· 9.2 Other information</b>	
<b>· Appearance:</b>	
<b>· Form:</b>	Fluid
<b>· Important information on protection of health and environment, and on safety.</b>	
<b>· Ignition temperature:</b>	Product is not selfigniting.
<b>· Explosive properties:</b>	Product does not present an explosion hazard.
<b>· Solvent content:</b>	
<b>· Water:</b>	80 - 100 %
<b>· Change in condition</b>	
<b>· Evaporation rate</b>	Not determined.
<b>· Information with regard to physical hazard classes</b>	
<b>· Explosives</b>	Void
<b>· Flammable gases</b>	Void
<b>· Aerosols</b>	Void
<b>· Oxidising gases</b>	Void
<b>· Gases under pressure</b>	Void
<b>· Flammable liquids</b>	Void
<b>· Flammable solids</b>	Void
<b>· Self-reactive substances and mixtures</b>	Void
<b>· Pyrophoric liquids</b>	Void
<b>· Pyrophoric solids</b>	Void
<b>· Self-heating substances and mixtures</b>	Void
<b>· Substances and mixtures, which emit flammable gases in contact with water</b>	Void
<b>· Oxidising liquids</b>	Void
<b>· Oxidising solids</b>	Void
<b>· Organic peroxides</b>	Void
<b>· Corrosive to metals</b>	Void
<b>· Desensitised explosives</b>	Void

## SECTION 10: Stability and reactivity

- 10.1 Reactivity** 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:** No further relevant information available.

(Contd. on page 5)

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 62 (replaces version 61)

Revision: 03.11.2023

**Trade name: Elution Buffer 7**

(Contd. of page 4)

- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## \* **SECTION 11: Toxicological information**

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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.

- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

## \* **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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:** Not hazardous for water.

## \* **SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

GB

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

Printing date 03.11.2023

Version number 62 (replaces version 61)

Revision: 03.11.2023

Trade name: Elution Buffer 7

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## SECTION 14: Transport information

- |  |                 |
|--|-----------------|
| · 14.1 UN number or ID number<br>· ADR, ADN, IMDG, IATA                | not regulated   |
| · 14.2 UN proper shipping name<br>· ADR, ADN, IMDG, IATA               | not regulated   |
| · 14.3 Transport hazard class(es)<br>· ADR, ADN, IMDG, IATA<br>· Class | not regulated   |
| · 14.4 Packing group<br>· ADR, IMDG, IATA                              | not regulated   |
| · 14.5 Environmental hazards:<br>· Marine pollutant:                   | No              |
| · 14.6 Special precautions for user                                    | Not applicable. |
| · 14.7 Maritime transport in bulk according to<br>IMO instruments      | Not applicable. |
| · UN "Model Regulation":   | not regulated   |

## SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## SECTION 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.

- Department issuing SDS: Department of Production

- Contact: -

- Abbreviations and acronyms:

ADR: Accord relatif au transport international 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

- \* Data compared to the previous version altered.

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 20.10.2023

Version number 30 (replaces version 29)

Revision: 20.10.2023

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

- **1.1 Product identifier**
- **Trade name:** Proteinase K
- **CAS Number:**  
39450-01-6
- **EC number:**  
254-457-8
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** -
- **Application of the substance / the mixture** Product for analytical use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Revvity chemagen Technologie GmbH  
Arnold-Sommerfeld-Ring 2  
52499 BAESWEILER  
DEUTSCHLAND  
e-mail: support.chemagen@revvity.com
- **Further information obtainable from:** -
- **1.4 Emergency telephone number:**  
CHEMTREC (within U.S.) 800 424-9300  
CHEMTREC (from outside U.S.) +1-703-672-3887

## \* SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



- Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger

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GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 20.10.2023

Version number 30 (replaces version 29)

Revision: 20.10.2023

**Trade name: Proteinase K**

(Contd. of page 1)

**· Hazard-determining components of labelling:**Proteinase, *Tritirachium album* serine**· Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

**· Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear eye protection / face protection.

P284 [In case of inadequate ventilation] wear respiratory protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**· 2.3 Other hazards****· Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****· 3.1 Substances****· CAS No. Description**39450-01-6 Proteinase, *Tritirachium album* serine**· Identification number(s)****· EC number:** 254-457-8**SECTION 4: First aid measures****· 4.1 Description of first aid measures**· **General information:** Immediately remove any clothing soiled by the product.· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.**· After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** If symptoms persist 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:** Use fire extinguishing methods suitable to surrounding conditions.· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

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# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 20.10.2023

Version number 30 (replaces version 29)

Revision: 20.10.2023

**Trade name: Proteinase K**

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- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to section 13.  
Ensure adequate ventilation.
- **6.4 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.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**  
**Storage:**  
· **Requirements to be met by storerooms and receptacles:** No special requirements.  
· **Information about storage in one common storage facility:** Not required.  
· **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**  
· **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**  
· **Appropriate engineering controls** No further data; see section 7.  
· **Individual protection measures, such as 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.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Hand protection**



Protective gloves

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# Safety data sheet

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Revision: 20.10.2023

**Trade name: Proteinase K**

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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.

- **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/face protection**



Tightly sealed goggles

## SECTION 9: Physical and chemical properties

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

- **General Information**

**Solid**

· <b>Physical state</b>	<b>Solid</b>
· <b>Colour:</b>	<b>Not determined.</b>
· <b>Odour:</b>	<b>Characteristic</b>
· <b>Odour threshold:</b>	<b>Not determined.</b>
· <b>Melting point/freezing point:</b>	<b>Undetermined.</b>
· <b>Boiling point or initial boiling point and boiling range</b>	<b>Undetermined.</b>
· <b>Flammability</b>	<b>Product is not flammable.</b>

- **Lower and upper explosion limit**

**Not determined.**

· <b>Lower:</b>	<b>Not determined.</b>
· <b>Upper:</b>	<b>Not determined.</b>

- **Flash point:**

**Not applicable.**

· <b>Decomposition temperature:</b>	<b>Not determined.</b>
· <b>pH</b>	<b>Not applicable.</b>

- **Viscosity:**

**Not applicable.**

· <b>Kinematic viscosity</b>	<b>Not applicable.</b>
· <b>Dynamic:</b>	<b>Not applicable.</b>

- **Solubility**

**Soluble.**

· <b>water:</b>	<b>Soluble.</b>
· <b>Partition coefficient n-octanol/water (log value)</b>	<b>Not determined.</b>

- **Vapour pressure:**

**Not applicable.**

· <b>Density and/or relative density</b>	<b>Not applicable.</b>
· <b>Density at 20 °C:</b>	<b>1.1 g/cm³</b>

- **Relative density**

**Not determined.**

· <b>Vapour density</b>	<b>Not applicable.</b>
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# Safety data sheet

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Version number 30 (replaces version 29)

Revision: 20.10.2023

Trade name: Proteinase K

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· <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Solid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Not determined.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Solids content:</b>	100.0 %
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not applicable.
· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** 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:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.

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# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 20.10.2023

Version number 30 (replaces version 29)

Revision: 20.10.2023

**Trade name: Proteinase K**

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**· Respiratory or skin sensitisation**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**· STOT-single exposure** May cause respiratory irritation.**· 11.2 Information on other hazards****· Endocrine disrupting properties**

Substance is not listed.

**\* 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.

**· 12.5 Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**· 12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

**· 12.7 Other adverse effects****· Additional ecological information:**

**· General notes:** Not hazardous for water.

**\* SECTION 13: Disposal considerations****· 13.1 Waste treatment methods****Recommendation**

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

**· Uncleaned packaging:**

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

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**SECTION 14: Transport information****· 14.1 UN number or ID number**

**ADR, ADN, IMDG, IATA** not regulated

**· 14.2 UN proper shipping name**

**ADR, ADN, IMDG, IATA** not regulated

**· 14.3 Transport hazard class(es)**

**ADR, ADN, IMDG, IATA**

**Class** not regulated

**· 14.4 Packing group**

**ADR, IMDG, IATA** not regulated

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# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 20.10.2023

Version number 30 (replaces version 29)

Revision: 20.10.2023

**Trade name: Proteinase K**

(Contd. of page 6)

· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>UN "Model Regulation":</b>	not regulated

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 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.

- **Department issuing SDS:** Department of Production

- **Contact:** -

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- \* Data compared to the previous version altered.

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.02.2024

Version number 4 (replaces version 3)

Revision: 19.02.2024

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

- **1.1 Product identifier**
- **Trade name:** Purified Water
- **CAS Number:**  
7732-18-5
- **EC number:**  
231-791-2
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** -
- **Application of the substance / the mixture** Product for analytical use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Revvity chemagen Technologie GmbH  
Arnold-Sommerfeld-Ring 2  
52499 BAESWEILER  
DEUTSCHLAND  
e-mail: support.chemagen@revvity.com
- **Further information obtainable from:** -
- **1.4 Emergency telephone number:**  
CHEMTREC (within U.S.) 800 424-9300  
CHEMTREC (from outside U.S.) +1-703-672-3887

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The substance is not classified, according to the GB CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

- **3.1 Substances**
- **CAS No. Description**  
7732-18-5 water, distilled, conductivity or of similar purity
- **Identification number(s)**
- **EC number:** 231-791-2

## SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** No special measures required.

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.02.2024

Version number 4 (replaces version 3)

Revision: 19.02.2024

Trade name: Purified Water

(Contd. of page 1)

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist 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:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Dilute with plenty of water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 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.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.

(Contd. on page 3)

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.02.2024

Version number 4 (replaces version 3)

Revision: 19.02.2024

**Trade name: Purified Water**

(Contd. of page 2)

- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Hand protection**  
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.
- **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/face protection** Goggles recommended during refilling

## SECTION 9: Physical and chemical properties

· <b>9.1 Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Physical state</b>	Fluid
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Odourless
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	0 °C
· <b>Boiling point or initial boiling point and boiling range</b>	100 °C
· <b>Flammability</b>	Not applicable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Flash point:</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic at 20 °C:</b>	0.952 mPas
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	23 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1 g/cm³
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.

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GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.02.2024

Version number 4 (replaces version 3)

Revision: 19.02.2024

**Trade name: Purified Water**

(Contd. of page 3)

· <b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Not determined.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Water:</b>	80 - 100 %
· <b>Molecular weight</b>	18.02 g/mol
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.
· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** 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:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

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# Safety data sheet

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

Printing date 19.02.2024

Version number 4 (replaces version 3)

Revision: 19.02.2024

**Trade name: Purified Water**

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- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties**

Substance is not listed.

### 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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:** Not hazardous for water.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

- |  |               |
|--|---------------|
| · <b>14.1 UN number or ID number</b>     |               |
| · ADR, ADN, IMDG, IATA                   | not regulated |
| · <b>14.2 UN proper shipping name</b>    |               |
| · ADR, ADN, IMDG, IATA                   | not regulated |
| · <b>14.3 Transport hazard class(es)</b> |               |
| · ADR, ADN, IMDG, IATA                   |               |
| · Class                                  | not regulated |

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**Trade name: Purified Water**

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· <b>14.4 Packing group</b>	not regulated
· <b>ADR, IMDG, IATA</b>	
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>UN "Model Regulation":</b>	not regulated

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 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.

- **Department issuing SDS:** Department of Production

- **Contact:** -

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 18 (replaces version 17)

Revision: 03.11.2023

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

- **1.1 Product identifier**
- **Trade name:** Poly(A) RNA
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use -**
- **Application of the substance / the mixture** Product for analytical use

- **1.3 Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Revvity chemagen Technologie GmbH  
Arnold-Sommerfeld-Ring 2  
52499 BAESWEILER  
DEUTSCHLAND  
e-mail: support.chemagen@revvity.com

- **Further information obtainable from:** -

- **1.4 Emergency telephone number:**

CHEMTREC (within U.S.) 800 424-9300  
CHEMTREC (from outside U.S.) +1-703-672-3887

## \* SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The substance is not classified, according to the GB CLP regulation.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008** Void

- **Hazard pictograms** Void

- **Signal word** Void

- **Hazard statements** Void

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

- **3.1 Substances**

- **CAS No. Description**

Poly (A) RNA

## 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 complaints.

- **After skin contact:** Generally the product does not irritate the skin.

- **After eye contact:** Rinse opened eye for several minutes under running water.

- **After swallowing:** If symptoms persist consult doctor.

- **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

# Safety data sheet

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Trade name: Poly(A) RNA

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- **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:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **6.4 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.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Hand protection**  
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.

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*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.*

**· 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/face protection** Not required.

## \* SECTION 9: Physical and chemical properties

**· 9.1 Information on basic physical and chemical properties****· General Information****· Physical state**

Solid

**· Colour:**

Transparent

**· Odour:**

Odourless

**· Odour threshold:**

Not determined.

**· Melting point/freezing point:**

Undetermined.

**· Boiling point or initial boiling point and boiling range**Undetermined.  
Product is not flammable.**· Flammability****· Lower and upper explosion limit****· Lower:**

Not determined.

**· Upper:**

Not determined.

**· Flash point:**

Not applicable.

**· Decomposition temperature:**

Not determined.

**· pH**

Not applicable.

**· Viscosity:**

Not applicable.

**· Kinematic viscosity**

Not applicable.

**· Dynamic:**

Not applicable.

**· Solubility****· water:**

Soluble.

**· Partition coefficient n-octanol/water (log value)**

Not determined.

**· Vapour pressure:**

Not applicable.

**· Density and/or relative density****· Density:**

Not determined.

**· Relative density**

Not determined.

**· Vapour density**

Not applicable.

**· 9.2 Other information****· Appearance:**

Powder

**· Form:****· Important information on protection of health and environment, and on safety.****· Ignition temperature:**

Not determined.

**· Explosive properties:**

Product does not present an explosion hazard.

**· Solids content:**

100.0 %

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· Change in condition	
· Evaporation rate	Not applicable.
<b>Information with regard to physical hazard classes</b>	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

## SECTION 10: Stability and reactivity

- 10.1 Reactivity 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: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

## SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- Acute toxicity Based on available data, the classification criteria are not met.
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- 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.

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**Trade name:** Poly(A) RNA

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**· 11.2 Information on other hazards****· Endocrine disrupting properties**

Substance is not listed.

**\* 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.**· 12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**· 12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

**· 12.7 Other adverse effects****· Additional ecological information:****· General notes:**

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

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

**\* SECTION 13: Disposal considerations****· 13.1 Waste treatment methods****Recommendation:** Smaller quantities can be disposed of with household waste.**· Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agents:** Water, if necessary together with cleansing agents.**SECTION 14: Transport information****· 14.1 UN number or ID number****ADR, ADN, IMDG, IATA** not regulated**· 14.2 UN proper shipping name****ADR, ADN, IMDG, IATA** not regulated**· 14.3 Transport hazard class(es)****ADR, ADN, IMDG, IATA****Class** not regulated**· 14.4 Packing group****ADR, IMDG, IATA** not regulated**· 14.5 Environmental hazards:****Marine pollutant:** No

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Version number 18 (replaces version 17)

Revision: 03.11.2023

**Trade name: Poly(A) RNA**

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· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>UN "Model Regulation":</b>	not regulated

## \* SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 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.

- **Department issuing SDS:** Department of Production

- **Contact:** -

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

- \* Data compared to the previous version altered.

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.11.2023

Version number 20 (replaces version 19)

Revision: 03.11.2023

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

### · 1.1 Product identifier

· Trade name: **Poly(A) RNA Buffer**

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

#### · Sector of Use -

· Application of the substance / the mixture Product for analytical use

### · 1.3 Details of the supplier of the safety data sheet

#### · Manufacturer/Supplier:

Revvity chemagen Technologie GmbH

Arnold-Sommerfeld-Ring 2

52499 BAESWEILER

DEUTSCHLAND

e-mail: support.chemagen@revvity.com

### · Further information obtainable from: -

### · 1.4 Emergency telephone number:

CHEMTREC (within U.S.) 800 424-9300

CHEMTREC (from outside U.S.) +1-703-672-3887

## \* SECTION 2: Hazards identification

### · 2.1 Classification of the substance or mixture

#### · Classification according to Regulation (EC) No 1272/2008



Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Eye Irrit. 2 H319 Causes serious eye irritation.

### · 2.2 Label elements

#### · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

#### · Hazard pictograms



GHS07

### · Signal word Warning

#### · Hazard-determining components of labelling:

guanidinium thiocyanate

#### · Hazard statements

H302+H312 Harmful if swallowed or in contact with skin.

H319 Causes serious eye irritation.

#### · Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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Version number 20 (replaces version 19)

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## Trade name: Poly(A) RNA Buffer

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P321	Specific treatment (see on this label).
P330	Rinse mouth.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**  
EUH032 Contact with acids liberates very toxic gas.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 593-84-0	guanidinium thiocyanate	20-40%
EINECS: 209-812-1	! Acute Tox. 4, H302; Acute Tox. 4, H332, EUH032	

- **Additional information:**

For the wording of the listed hazard phrases refer to section 16.

CAS: 7732-18-5	water, distilled, conductivity or of similar purity	60-80%
EINECS: 231-791-2		

## SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:** Immediately rinse with water.

- **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** Call for a doctor immediately.

- **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:** Use fire extinguishing methods suitable to surrounding conditions.

- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

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# Safety data sheet

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Revision: 03.11.2023

**Trade name: Poly(A) RNA Buffer**

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- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### \* **SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to section 13.
- **6.4 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.

### \* **SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Do not store together with acids.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

### \* **SECTION 8: Exposure controls/personal protection**

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as 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.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.

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Version number 20 (replaces version 19)

Revision: 03.11.2023

Trade name: Poly(A) RNA Buffer

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## · Hand protection



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.

## · Eye/face protection



Tightly sealed goggles

## \* SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

#### · Physical state

Fluid

#### · Colour:

According to product specification

#### · Odour:

Characteristic

#### · Odour threshold:

Not determined.

#### · Melting point/freezing point:

Undetermined.

#### · Boiling point or initial boiling point and boiling range

Undetermined.

#### · Flammability

Not applicable.

#### · Lower and upper explosion limit

#### · Lower:

Not determined.

#### · Upper:

Not determined.

#### · Flash point:

Not applicable.

#### · Decomposition temperature:

Not determined.

#### · pH

Not determined.

#### · Viscosity:

Not determined.

#### · Kinematic viscosity

Not determined.

#### · Dynamic:

Not determined.

#### · Solubility

Fully miscible.

#### · water:

#### · Partition coefficient n-octanol/water (log value)

Not determined.

#### · Vapour pressure at 20 °C:

23 hPa

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<b>· Density and/or relative density</b>	
<b>· Density at 20 °C:</b>	1.073 g/cm <sup>3</sup>
<b>· Relative density</b>	Not determined.
<b>· Vapour density</b>	Not determined.
<b>· 9.2 Other information</b>	
<b>· Appearance:</b>	
<b>· Form:</b>	Fluid
<b>· Important information on protection of health and environment, and on safety.</b>	
<b>· Ignition temperature:</b>	Product is not selfigniting.
<b>· Explosive properties:</b>	Product does not present an explosion hazard.
<b>· Solvent content:</b>	
<b>· Water:</b>	60 - 80 %
<b>· Change in condition</b>	
<b>· Evaporation rate</b>	Not determined.
<b>· Information with regard to physical hazard classes</b>	
<b>· Explosives</b>	Void
<b>· Flammable gases</b>	Void
<b>· Aerosols</b>	Void
<b>· Oxidising gases</b>	Void
<b>· Gases under pressure</b>	Void
<b>· Flammable liquids</b>	Void
<b>· Flammable solids</b>	Void
<b>· Self-reactive substances and mixtures</b>	Void
<b>· Pyrophoric liquids</b>	Void
<b>· Pyrophoric solids</b>	Void
<b>· Self-heating substances and mixtures</b>	Void
<b>· Substances and mixtures, which emit flammable gases in contact with water</b>	Void
<b>· Oxidising liquids</b>	Void
<b>· Oxidising solids</b>	Void
<b>· Organic peroxides</b>	Void
<b>· Corrosive to metals</b>	Void
<b>· Desensitised explosives</b>	Void

### SECTION 10: Stability and reactivity

- 10.1 Reactivity** 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:** No further relevant information available.
- 10.6 Hazardous decomposition products:** No dangerous decomposition products known.

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## \* SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- Acute toxicity Harmful if swallowed or in contact with skin.

- LD/LC50 values relevant for classification:

**593-84-0 guanidinium thiocyanate**

Oral	LD50	593 mg/kg (rat)
Dermal	LD50	2,001 mg/kg (rat)
Inhalative	LC50/4 h	17,273 mg/l (rat)

- Serious eye damage/irritation Causes serious eye irritation.

- 11.2 Information on other hazards

- Endocrine disrupting properties

None of the ingredients is listed.

## \* 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.

- 12.5 Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

- 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- 12.7 Other adverse effects

- Additional ecological information:

- General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

## SECTION 13: Disposal considerations

- 13.1 Waste treatment methods

- Recommendation

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

- Uncleaned packaging:

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

- Recommended cleansing agents: Water, if necessary together with cleansing agents.

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## \* SECTION 14: Transport information

- 14.1 UN number or ID number  
· ADR, ADN, IMDG, IATA not regulated
- 14.2 UN proper shipping name  
· ADR, ADN, IMDG, IATA not regulated
- 14.3 Transport hazard class(es)  
· ADR, ADN, IMDG, IATA not regulated
- 14.4 Packing group  
· ADR, IMDG, IATA not regulated
- 14.5 Environmental hazards:  
· Marine pollutant: No
- 14.6 Special precautions for user Not applicable.
- 14.7 Maritime transport in bulk according to IMO instruments Not applicable.
- UN "Model Regulation": not regulated

## \* SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## SECTION 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

H302 Harmful if swallowed.

H332 Harmful if inhaled.

EUH032 Contact with acids liberates very toxic gas.

- Department issuing SDS: Department of Production

- Contact: -

- Abbreviations and acronyms:

ADR: Accord relatif au transport international 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

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PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

\* Data compared to the previous version altered.

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