

chemagic™ Kit Components

chemagic cfDNA 1.5k Kit H96

Product number: CMG-1396

Component name
Magnetic Beads
Lysis Buffer 1
Binding Buffer 2
Wash Buffer 3
Wash Buffer 4
Deionized Water
Elution Buffer 5
Poly(A) RNA
Poly(A) RNA Buffer
Proteinase K

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Printing date 29.04.2024 Version number 4 Revision: 29.04.2024

1 Identification

- · Product identifier
- · Trade name: Magnetic Beads
- · 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
- · 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: -
- · Emergency telephone number:

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

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

2 Hazard(s) Identification

· Classification of the substance or mixture

The product is not classified, according to the Globally Harmonised System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition and Information on Ingredients

- · Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.
- · Dangerous components: Void
- Additional information:

Brown suspension, beads contain iron oxide and polyvinyl alcohol, suspended in water For the wording of the listed hazard phrases refer to section 16.

7732-18-5	water, distilled, conductivity or of similar purity	>78.5%
127-08-2	potassium acetate	0.75-1.5%

4 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.

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Trade name: Magnetic Beads

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- · After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire Fighting Measures

- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Protective equipment: No special measures required.

6 Accidental Release Measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Dilute with plenty of water.
- Methods and material for containment and cleaning up:

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

· 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.

7 Handling and Storage

- · Handling:
- · Precautions for safe handling No special measures required.
- Information about fire and explosion protection: No special measures required.
- · 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.
- · Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

- · Additional information about design of technical facilities: No further data; see section 7.
- · 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.
- · Personal protective equipment:
- · General protective and hygienic measures:

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

- · Respiratory protection: Not required.
- Protection of hands:

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

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Trade name: Magnetic Beads

(Contd. of page 2)

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.

Eve protection: Goggles recommended during refilling

9 Physical and Chemical Properties

· General Information

· Appearance:

· Form: Fluid

· Colour: According to product specification

Odour: Characteristic
 Odour threshold: Not determined.
 pH-value: Not determined.

· Change in condition

· Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 100 °C

Flash point: Not applicable.
 Flammability (solid, gas): Not applicable.
 Decomposition temperature: Not determined.

· **Ignition temperature:** Product is not selfigniting.

• Explosive properties: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.
Upper: Not determined.
Vapour pressure at 20 °C: 23 hPa

Density at 20 °C:

 Relative density
 Vapour density

 Vaporation rate
 D.99529 g/cm³

 Not determined.

 Not determined.
 Not determined.
 Not determined.

· Solubility in / Miscibility with

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

· Viscosity:

· **Dynamic:** Not determined. · **Kinematic:** Not determined.

· Solvent content:

· Water: >78.5 %
 · VOC (EC) 0.00 %
 · Solids content: >0 - <20 %

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Trade name: Magnetic Beads

(Contd. of page 3)

· Other information

No further relevant information available.

10 Stability and Reactivity

- · Reactivity No further relevant information available.
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

- · Information on toxicological effects
- · 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.

12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes: Not hazardous for water.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation Smaller quantities can be disposed of with household waste.

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Trade name: Magnetic Beads

(Contd. of page 4)

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

Transport information		
UN-Number		
· ADG, IMDG, IATA	not regulated	
· UN proper shipping name		
· ADG, IMDG, IATA	not regulated	
Transport hazard class(es)		
ADG, ADN, IMDG, IATA		
Class	not regulated	
Packing group		
ADG, IMDG, IATA	not regulated	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Ann	nex II of	
Marpol and the IBC Code	Not applicable.	
· UN "Model Regulation":	not regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Australian Inventory of Industrial Chemicals

All ingredients are listed.

· Standard for the Uniform Scheduling of Medicines and Poisons

None of the ingredients is listed.

· Australia: Priority Existing Chemicals

None of the ingredients is listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

(Contd. on page 6)



Printing date 29.04.2024 Version number 4 Revision: 29.04.2024

Trade name: Magnetic Beads

(Contd. of page 5)

· 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

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

* Data compared to the previous version altered.

ΑU



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

1 Identification

- · Product identifier
- · Trade name: Lysis Buffer 1
- · 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
- · 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: -
- · Emergency telephone number:

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

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

2 Hazard(s) Identification

· Classification of the substance or mixture



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H335 May cause respiratory irritation.

- · Label elements
- · GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms





GHS05 GHS07

- · Signal word Danger
- · Hazard-determining components of labelling:

sodium dodecyl sulphate (10-20 %)

· Hazard statements

Causes skin irritation.

Causes serious eve damage.

May cause respiratory irritation.

(Contd. on page 2)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Lysis Buffer 1

(Contd. of page 1)

· Precautionary statements

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

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

Store locked up.

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

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

3 Composition and Information on Ingredients

- · Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.
- · Dangerous components:

151-21-3 sodium dodecyl sulphate

10-20%

· Additional information:

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

7732-18-5 water, distilled, conductivity or of similar purity

70-90%

4 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. Then consult a doctor.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- Most important symptoms and effects, both acute and delayed
- No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire Fighting Measures

- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Protective equipment: No special measures required.

6 Accidental Release Measures

· Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.

(Contd. on page 3)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Lysis Buffer 1

(Contd. of page 2)

· Environmental precautions:

Dilute with plenty of water.

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

· Methods and material for containment and cleaning up:

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

Use neutralising agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

· 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.

7 Handling and Storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- · Information about fire and explosion protection: No special measures required.
- · 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.
- Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

- · Additional information about design of technical facilities: No further data; see section 7.
- 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.
- · 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 skin.

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.

Protection of hands:



Protective gloves

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

(Contd. on page 4)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

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 protection:



Tightly sealed goggles

9 Physical and Chemical Properties

· General Information

· Appearance:

· Form: Fluid

· Colour: According to product specification

Odour: Characteristic
 Odour threshold: Not determined.
 pH-value: Not determined.

· Change in condition

• Melting point/freezing point: Undetermined.

· Initial boiling point and boiling range: 100 °C

Flash point: Not applicable.
 Flammability (solid, gas): Not applicable.
 Decomposition temperature: Not determined.

· **Ignition temperature:** Product is not selfigniting.

Explosive properties: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.
Upper: Not determined.
Vapour pressure at 20 °C: 23 hPa

Density at 20 °C: 0.934 g/cm³
 Relative density Not determined.
 Vapour density Not determined.
 Evaporation rate Not determined.

· Solubility in / Miscibility with

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

· Viscosity:

Dynamic: Not determined.
Kinematic: Not determined.

(Contd. on page 5)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Lysis Buffer 1

(Contd. of page 4)

· Solvent content:

• *Water:* 70 - 90 % • **VOC (EC)** 0.00 %

· Other information No further relevant information available.

10 Stability and Reactivity

- · Reactivity No further relevant information available.
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

- · Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.
- · LD/LC50 values relevant for classification:

151-21-3 sodium dodecyl sulphate

Oral LD50 1,288 mg/kg (rat)

- Skin corrosion/irritation Causes skin irritation.
- · Serious eye damage/irritation Causes serious eye damage.
- · 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 May cause respiratory irritation.
- · 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.

12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · **Mobility in soil** No further relevant information available.
- 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.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

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

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Trade name: Lysis Buffer 1

(Contd. of page 5)

· Results of PBT and vPvB assessment

· **PBT:** Not applicable. · **vPvB:** Not applicable.

· Other adverse effects No further relevant information available.

13 Disposal considerations

- · 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.

Transport information		
UN-Number		
ADG, ADN, IMDG, IATA	not regulated	
UN proper shipping name		
ADG, ADN, IMDG, IATA	not regulated	
Transport hazard class(es)		
ADG, ADN, IMDG, IATA		
Class	not regulated	
Packing group		
ADG, IMDG, IATA	not regulated	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Ann	ex II of	
Marpol and the IBC Code	Not applicable.	
UN "Model Regulation":	not regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Australian Inventory of Industrial Chemicals

All ingredients are listed.

· Standard for the Uniform Scheduling of Medicines and Poisons

None of the ingredients is listed.

· Australia: Priority Existing Chemicals

None of the ingredients is listed.

· GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

(Contd. on page 7)



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Trade name: Lysis Buffer 1

· Hazard pictograms

(Contd. of page 6)





GHS05 GHS07

- · Signal word Danger
- · Hazard-determining components of labelling:

sodium dodecyl sulphate (10-20 %)

· Hazard statements

Causes skin irritation.

Causes serious eye damage.

May cause respiratory irritation.

· Precautionary statements

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

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

Store locked up.

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

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

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

* Data compared to the previous version altered.



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

1 Identification

- · Product identifier
- · Trade name: Binding Buffer 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
- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

Revvity chemagen Technologie GmbH

Arnold-Sommerfeld-Ring 2

52499 BAESWEILER

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e-mail: support.chemagen@revvity.com

- · Further information obtainable from: -
- · Emergency telephone number:

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

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

2 Hazard(s) Identification

· Classification of the substance or mixture



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



Acute Tox. 4 H302 Harmful if swallowed.

- · Label elements
- · GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms





GHS05 GHS07

- · Signal word Danger
- · Hazard-determining components of labelling:

guanidinium thiocyanate (30-50 %)

Isotridecylalcohol (10-20 %)

· Hazard statements

Harmful if swallowed.

Causes severe skin burns and eye damage.

(Contd. on page 2)



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Trade name: Binding Buffer 2

(Contd. of page 1)

· Precautionary statements

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

Store locked up.

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

Additional information:

Contact with acids liberates very toxic gas.

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

3 Composition and Information on Ingredients

- · Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
593-84-0	guanidinium thiocyanate	30-50%
9043-30-5	Isotridecylalcohol	10-20%
64-17-5	ethanol	0-20%

· Additional information:

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

7732-18-5 water, distilled, conductivity or of similar purity	15-35%	ı
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4 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. Then consult a doctor.
- · After swallowing:

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed No further relevant information available.

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Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Binding Buffer 2

(Contd. of page 2)

5 Fire Fighting Measures

- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

· Protective equipment: Mouth respiratory protective device.

6 Accidental Release Measures

· Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

Dilute with plenty of water.

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

· Methods and material for containment and cleaning up:

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

Use neutralising agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

· 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.

7 Handling and Storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- · Information about fire and explosion protection: Keep respiratory protective device available.
- · 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.
- · Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

- Additional information about design of technical facilities: No further data; see section 7.
- Ingredients with limit values that require monitoring at the workplace:

64-17-5 ethanol

WES Long-term value: 1880 mg/m³, 1000 ppm

- · Additional information: The lists valid during the making were used as basis.
- · Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

(Contd. on page 4)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Binding Buffer 2

(Contd. of page 3)

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:

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.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

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

· Eye protection:



Tightly sealed goggles

9 Physical and Chemical Properties

· General Information

· Appearance:

· Form: Fluid

· Colour: According to product specification

Odour: Characteristic
 Odour threshold: Not determined.
 pH-value: Not determined.

· Change in condition

Melting point/freezing point:
 Initial boiling point and boiling range:
 Undetermined.
 Flash point:
 Flash point:
 Not applicable.
 Not applicable.

Auto-ignition temperature: 425 °C

· **Decomposition temperature:** Not determined.

· **Ignition temperature:** Product is not selfigniting.

• Explosive properties: Product does not present an explosion hazard.

(Contd. on page 5)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Binding Buffer 2

(Contd. of page 4)

· Explosion limits:

Lower: 3.5 Vol %
 Upper: 15 Vol %
 Vapour pressure at 20 °C: 59 hPa
 Vapour pressure at 50 °C: 280 hPa

Density: Not determined.
 Relative density Not determined.
 Vapour density Not determined.
 Evaporation rate Not determined.

· Solubility in / Miscibility with

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

· Viscosity:

Dynamic: Not determined.Kinematic: Not determined.

· Solvent content:

Organic solvents: 0 - 20 %
 ⋅ Water: 15 - 35 %
 ⋅ VOC (EC) 0 - 20 %

· Other information No further relevant information available.

10 Stability and Reactivity

- · Reactivity No further relevant information available.
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

- · Information on toxicological effects
- · Acute toxicity Harmful if swallowed.

· 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)

- · Skin corrosion/irritation Causes severe skin burns and eye damage.
- Serious eye damage/irritation Causes serious eye damage.
- 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.

(Contd. on page 6)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Binding Buffer 2

(Contd. of page 5)

- · 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.

12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · 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.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

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

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- · 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.

14 Transport information		
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Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Binding Buffer 2

(Contd. of page 6)

· Transport hazard class(es)

· ADG, IMDG, IATA



· Class 8 Corrosive substances.

·Label

· Packing group · ADG, IMDG, IATA

II· Environmental hazards:

Not applicable. Warning: Corrosive substances. · Special precautions for user

· Hazard identification number (Kemler code): 80

· EMS Number: F-A,S-B

· Stowage Category В

· Stowage Code SW2 Clear of living quarters.

· Transport in bulk according to Annex II of

Marpol and the IBC Code Not applicable.

· Transport/Additional information:

· ADG

1L · Limited quantities (LQ)

· Excepted quantities (EQ) Code: E2

> Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

· Transport category Ε

· Tunnel restriction code

· IMDG

· Limited quantities (LQ) 1L

· Excepted quantities (EQ) Code: E2

> Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

UN 1760 CORROSIVE LIQUID, N.O.S. UN "Model Regulation":

(GUANIDINIUM THIOCYANATE), 8, II

15 Regulatory information

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

· Australian Inventory of Industrial Chemicals

All ingredients are listed.

· Standard for the Uniform Scheduling of Medicines and Poisons

None of the ingredients is listed.

· Australia: Priority Existing Chemicals

None of the ingredients is listed.

(Contd. on page 8)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Binding Buffer 2

(Contd. of page 7)

· GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms





GHS05 GHS07

· Signal word Danger

· Hazard-determining components of labelling:

guanidinium thiocyanate (30-50 %) Isotridecylalcohol (10-20 %)

· Hazard statements

Harmful if swallowed.

Causes severe skin burns and eye damage.

· Precautionary statements

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

Store locked up.

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

- Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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

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)

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 Corr. 1B: Skin corrosion/irritation - Category 1B

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

* Data compared to the previous version altered.



Version number 2 Revision: 29.04.2024 Printing date 29.04.2024

1 Identification

- · Product identifier
- · Trade name: Wash Buffer 3
- · 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
- · 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: -
- · Emergency telephone number:

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

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

2 Hazard(s) Identification

· Classification of the substance or mixture



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- · Label elements
- · GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms





GHS02 GHS07

- · Signal word Warning
- · Hazard-determining components of labelling:

guanidinium thiocyanate (20-40 %)

Isotridecylalcohol (0.75-1.5 %)

Hazard statements

Flammable liquid and vapour.

Harmful if swallowed.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Ground/bond container and receiving equipment.

(Contd. on page 2)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Wash Buffer 3

(Contd. of page 1)

Use explosion-proof electrical/ventilating/lighting equipment.

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

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

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

· Additional information:

Contact with acids liberates very toxic gas.

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

3 Composition and Information on Ingredients

- · Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:			
593-84-0	guanidinium thiocyanate	20-40%	
64-17-5	ethanol	20-40%	
9043-30-5	Isotridecylalcohol	0.75-1.5%	
	information: rding of the listed hazard phrases refer to section 16.		
7732-18-5	water, distilled, conductivity or of similar purity	20-40%	

4 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.
- · After swallowing: Call for a doctor immediately.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire Fighting Measures

· Suitable extinguishing agents:

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

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

(Contd. on page 3)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Wash Buffer 3

· Protective equipment: No special measures required.

(Contd. of page 2)

6 Accidental Release Measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

Dilute with plenty of water.

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

· 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.

· 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.

7 Handling and Storage

- · Handling:
- · 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.

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

8 Exposure controls and personal protection

- · Additional information about design of technical facilities: No further data; see section 7.
- Ingredients with limit values that require monitoring at the workplace:

64-17-5 ethanol

WES Long-term value: 1880 mg/m³, 1000 ppm

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

(Contd. on page 4)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Wash Buffer 3

· Protection of hands:

(Contd. of page 3)



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 protection:



Tightly sealed goggles

9 Physical and Chemical Properties

· General Information

· Appearance:

· Form: Fluid

· Colour: According to product specification

Odour: Characteristic
 Odour threshold: Not determined.
 pH-value: Not determined.

Change in condition

• Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 78 °C
Flash point: >55 °C
Flammability (solid, gas): Flammable.
Auto-ignition temperature: 425 °C
Decomposition temperature: Not determined.

• **Ignition temperature:** Product is not selfigniting.

Explosive properties: Not determined.

Explosion limits:

Lower: 3.5 Vol %
Upper: 15 Vol %
Vapour pressure at 20 °C: 59 hPa
Vapour pressure at 50 °C: 280 hPa
Density: Not determined.

· **Density:** Not determined. · **Relative density** Not determined.

(Contd. on page 5)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Wash Buffer 3

(Contd. of page 4)

Vapour densityEvaporation rateNot determined.Not determined.

· Solubility in / Miscibility with

• water: Fully miscible. • Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

· **Dynamic:** Not determined. · **Kinematic:** Not determined.

· Solvent content:

· Organic solvents: 20 - 40 %
 · Water: 20 - 40 %
 · VOC (EC) 20 - 40 %

· Other information No further relevant information available.

10 Stability and Reactivity

- · Reactivity No further relevant information available.
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

- · Information on toxicological effects
- · Acute toxicity Harmful if swallowed.

· 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)

- · 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.

12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.

(Contd. on page 6)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Wash Buffer 3

(Contd. of page 5)

- · Persistence and degradability No further relevant information available.
- Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- 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.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- · 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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	Transport		пацоп

· UN-Number · ADG, IMDG, IATA	UN2920
· UN proper shipping name	
ADG	2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (guanidinium thiocyanate, ETHANOL (ETHYL ALCOHOL))
· IMDG	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (guanidinium thiocyanate, ETHANOL (ETHYL ALCOHOL))
·IATA	CORROSÍVE LIQUID, FLAMMABLE, N.O.S. (guanidinium thiocyanate, ETHANOL)

- · Transport hazard class(es)
- · ADG





· Class 8 Corrosive substances.

(Contd. on page 7)



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Wash Buffer 3

	(Contd. of page
Label	8+3
IMDG	
Class Label	8 Corrosive substances. 8/3
IATA Description of the second secon	
Class Label	8 Corrosive substances. 8 (3)
Packing group ADG, IMDG, IATA	II
Environmental hazards:	Not applicable.
Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Category Stowage Code	Warning: Corrosive substances. 83 F-E,S-C E SW1 Protected from sources of heat. SW2 Clear of living quarters.
Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADG Limited quantities (LQ) Excepted quantities (EQ) Transport category	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml 2
Tunnel restriction code	D/E
IMDG Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S (GUANIDINIUM THIOCYANATE, ETHANOL (ETHYL ALCOHOL)), 8 (3), II



Printing date 29.04.2024 Version number 2 Revision: 29.04.2024

Trade name: Wash Buffer 3

(Contd. of page 7)

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Australian Inventory of Industrial Chemicals

All ingredients are listed.

· Standard for the Uniform Scheduling of Medicines and Poisons

None of the ingredients is listed.

· Australia: Priority Existing Chemicals

None of the ingredients is listed.

· GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms





GHS02 GHS07

- · Signal word Warning
- · Hazard-determining components of labelling:

guanidinium thiocyanate (20-40 %)

Isotridecylalcohol (0.75-1.5 %)

· Hazard statements

Flammable liquid and vapour.

Harmful if swallowed.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

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

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

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

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)

(Contd. on page 9)

(Contd. of page 8)



Safety Data Sheet according to WHS Regulations

Version number 2 Revision: 29.04.2024 Printing date 29.04.2024

Trade name: Wash Buffer 3

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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) LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity - Category 4

* * Data compared to the previous version altered.



Printing date 29.04.2024 Version number 1 Revision: 29.04.2024

1 Identification

- · Product identifier
- · Trade name: Wash Buffer 4
- 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
- · 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: -
- · Emergency telephone number:

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

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

2 Hazard(s) Identification

· Classification of the substance or mixture



GHS02 flame

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

- · Label elements
- · GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms



GHS02

- · Signal word Danger
- · Hazard statements

Highly flammable liquid and vapour.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

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

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

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

(Contd. on page 2)



Printing date 29.04.2024 Version number 1 Revision: 29.04.2024

Trade name: Wash Buffer 4

· vPvB: Not applicable.

(Contd. of page 1)

3 Composition and Information on Ingredients

- · Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.
- · Dangerous components:

64-17-5 ethanol

80-100%

· Additional information:

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

7732-18-5 water, distilled, conductivity or of similar purity

0-20%

4 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.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire Fighting Measures

- · Suitable extinguishing agents:
- CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Protective equipment: No special measures required.

6 Accidental Release Measures

- · Personal precautions, protective equipment and emergency procedures
- Wear protective equipment. Keep unprotected persons away.
- · Environmental precautions:

Dilute with plenty of water.

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

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.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

(Contd. on page 3)



Printing date 29.04.2024 Version number 1 Revision: 29.04.2024

Trade name: Wash Buffer 4

See Section 13 for disposal information.

(Contd. of page 2)

7 Handling and Storage

- · Handling:
- · 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.

- · 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.

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

8 Exposure controls and personal protection

- · Additional information about design of technical facilities: No further data; see section 7.
- Ingredients with limit values that require monitoring at the workplace:

64-17-5 ethanol

WES Long-term value: 1880 mg/m³, 1000 ppm

- · Additional information: The lists valid during the making were used as basis.
- · 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.
- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

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

(Contd. on page 4)



Printing date 29.04.2024 Version number 1 Revision: 29.04.2024

Trade name: Wash Buffer 4

· Eye protection:

(Contd. of page 3)



Tightly sealed goggles

9 Physical and Chemical Properties

· General Information

· Appearance:

· Form: Fluid

· Colour: According to product specification

Odour: Characteristic
 Odour threshold: Not determined.
 pH-value: Not determined.

· Change in condition

· Melting point/freezing point: Undetermined.

· Initial boiling point and boiling range: 78 °C · Flash point: 13 °C

· Flammability (solid, gas): Highly flammable.

Auto-ignition temperature: 425 °C

Decomposition temperature: Not determined.

Ignition temperature: Product is not selfigniting.

• Explosive properties: Product is not explosive. However, formation of explosive air/

vapour mixtures are possible.

· Explosion limits:

Lower: 3.5 Vol %
Upper: 15 Vol %
Vapour pressure at 20 °C: 59 hPa
Density at 20 °C: 0.811 g/cm³
Relative density Not determined.
Vapour density Not determined.
Evaporation rate Not determined.

· Solubility in / Miscibility with

• water: Fully miscible. • Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic: Not determined.Kinematic: Not determined.

· Solvent content:

Organic solvents: 80 - 100 %
 Water: 0 - 20 %
 VOC (EC) 80 - 100 %

• Other information No further relevant information available.

10 Stability and Reactivity

· Reactivity No further relevant information available.

(Contd. on page 5)



Printing date 29.04.2024 Version number 1 Revision: 29.04.2024

Trade name: Wash Buffer 4

(Contd. of page 4)

- Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

- · Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.
- · LD/LC50 values relevant for classification:

64-17-5 ethanol

 Oral
 LD50
 7,060 mg/kg (rat)

 Inhalative
 LC50/4 h
 20,000 mg/l (rat)

- · 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.

12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- 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.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- Recommendation

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



Printing date 29.04.2024 Version number 1 Revision: 29.04.2024

Trade name: Wash Buffer 4

(Contd. of page 5)

- Uncleaned packaging:
 Recommendation: Disposal must be made according to official regulations.
 Recommended cleansing agents: Water, if necessary together with cleansing agents.

UN-Number ADG, IMDG, IATA	UN1170
UN proper shipping name ADG	1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IMDG	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IATA	ETHANOL SOLUTION
Transport hazard class(es)	
ADG, IMDG, IATA	
Class Label	3 Flammable liquids. 3
	3
Packing group ADG, IMDG, IATA	II
Environmental hazards:	Not applicable.
Special precautions for user	Warning: Flammable liquids.
Hazard identification number (Kemler code):	
EMS Number:	F-E,S-D
Stowage Category	A
Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADG	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2
,	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	
Limited quantities (LQ)	1L

(Contd. on page 7)



Printing date 29.04.2024 Version number 1 Revision: 29.04.2024

Trade name: Wash Buffer 4

(Contd. of page 6)

	(Conta. or page o)	
· Excepted quantities (EQ)	Code: E2 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	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Australian Inventory of Industrial Chemicals

All ingredients are listed.

· Standard for the Uniform Scheduling of Medicines and Poisons

None of the ingredients is listed.

· Australia: Priority Existing Chemicals

None of the ingredients is listed.

· GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms



GHS02

- · Signal word Danger
- · Hazard statements

Highly flammable liquid and vapour.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

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

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

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

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

(Contd. on page 8)



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Trade name: Wash Buffer 4

(Contd. of page 7)

· 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

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids – Category 2

* Data compared to the previous version altered.



Printing date 29.04.2024 Version number 5 Revision: 29.04.2024

1 Identification

· Product identifier

· Trade name: Deionized Water

• **CAS Number:** 7732-18-5

• **EC number:** 231-791-2

- 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
- 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: -
- · Emergency telephone number:

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

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

2 Hazard(s) Identification

· Classification of the substance or mixture

The substance is not classified, according to the Globally Harmonised System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

3 Composition and Information on Ingredients

- · Chemical characterisation: Substances
- · CAS No. Description

7732-18-5 water, distilled, conductivity or of similar purity

- · Identification number(s)
- · EC number: 231-791-2

4 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.

(Contd. on page 2)



Printing date 29.04.2024 Version number 5 Revision: 29.04.2024

Trade name: Deionized Water

(Contd. of page 1)

- · After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire Fighting Measures

- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture No further relevant information available.
- Protective equipment: No special measures required.

6 Accidental Release Measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Dilute with plenty of water.
- Methods and material for containment and cleaning up:

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

· 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.

7 Handling and Storage

- · Handling:
- · Precautions for safe handling No special measures required.
- Information about fire and explosion protection: No special measures required.
- · 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.
- · Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

- · Additional information about design of technical facilities: No further data; see section 7.
- · Ingredients with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists valid during the making were used as basis.
- · Personal protective equipment:
- · General protective and hygienic measures:

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

- · Respiratory protection: Not required.
- Protection of hands:

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.

(Contd. on page 3)



Printing date 29.04.2024 Version number 5 Revision: 29.04.2024

Trade name: Deionized Water

(Contd. of page 2)

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 protection: Goggles recommended during refilling

9 Physical and Chemical Properties

· General Information

· Appearance:

Form: Fluid
Colour: Colourless
Odour: Odourless
Odour threshold: Not determined.
pH-value: Not determined.

· Change in condition

· Melting point/freezing point: 0 °C · Initial boiling point and boiling range: 100 °C

Flash point:
 Flammability (solid, gas):
 Decomposition temperature:
 Ignition temperature:
 Not applicable.
 Not determined.
 Not determined.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:

· Lower: Not determined. · Upper: Not determined.

· Vapour pressure at 20 °C: 23 hPa · Density at 20 °C: 1 g/cm³

Relative density
 Vapour density
 Evaporation rate
 Not determined.
 Not determined.

· Solubility in / Miscibility with

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

· Viscosity:

Dynamic at 20 °C:
 Kinematic:
 Water:
 0.952 mPas
 Not determined.
 80 - 100 %

· Other information No further relevant information available.

10 Stability and Reactivity

- · Reactivity No further relevant information available.
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

(Contd. on page 4)



Printing date 29.04.2024 Version number 5 Revision: 29.04.2024

Trade name: Deionized Water

(Contd. of page 3)

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

- · Information on toxicological effects
- · 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 eve 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.

12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes: Not hazardous for water.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · 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.

14 Transport information

- · UN-Number
- · ADG, ADN, IMDG, IATA not regulated

(Contd. on page 5)



Printing date 29.04.2024 Version number 5 Revision: 29.04.2024

Trade name: Deionized Water

		(Contd. of page 4)
· UN proper shipping name · ADG, ADN, IMDG, IATA	not regulated	
· Transport hazard class(es)		
· ADG, ADN, IMDG, IATA · Class	not regulated	
· Packing group · ADG, IMDG, IATA	not regulated	
· Environmental hazards: · Marine pollutant:	No	
· Special precautions for user	Not applicable.	
Transport in bulk according to Anne Marpol and the IBC Code	x II of Not applicable.	
· UN "Model Regulation":	not regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Australian Inventory of Industrial Chemicals

Substance is listed.

· Standard for the Uniform Scheduling of Medicines and Poisons

Substance is not listed.

· Australia: Priority Existing Chemicals

Substance is not listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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

EINECS: European Inventory of Existing Commercial Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

(Contd. on page 6)



Printing date 29.04.2024 Version number 5 Revision: 29.04.2024

Trade name: Deionized Water

vPvB: very Persistent and very Bioaccumulative

(Contd. of page 5)

* Data compared to the previous version altered.

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Printing date 29.04.2024 Version number 3 Revision: 29.04.2024

1 Identification

· Product identifier

· Trade name: Elution Buffer 5

· CAS Number: 7732-18-5 · EC number:

· **EC number** 231-791-2

- 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
- · 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: -
- · Emergency telephone number:

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

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

2 Hazard(s) Identification

· Classification of the substance or mixture

The substance is not classified, according to the Globally Harmonised System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition and Information on Ingredients

- · Chemical characterisation: Substances
- · CAS No. Description

7732-18-5 water, distilled, conductivity or of similar purity

- · Identification number(s)
- EC number: 231-791-2

4 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.

(Contd. on page 2)



Printing date 29.04.2024 Version number 3 Revision: 29.04.2024

Trade name: Elution Buffer 5

(Contd. of page 1)

- · After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire Fighting Measures

- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Protective equipment: No special measures required.

6 Accidental Release Measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Dilute with plenty of water.
- Methods and material for containment and cleaning up:

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

· 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.

7 Handling and Storage

- · Handling:
- · Precautions for safe handling No special measures required.
- Information about fire and explosion protection: No special measures required.
- · 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.
- · Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

- · Additional information about design of technical facilities: No further data; see section 7.
- · Ingredients with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists valid during the making were used as basis.
- · Personal protective equipment:
- · General protective and hygienic measures:

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

- · Respiratory protection: Not required.
- · Protection of hands:

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.

(Contd. on page 3)



Printing date 29.04.2024 Version number 3 Revision: 29.04.2024

Trade name: Elution Buffer 5

(Contd. of page 2)

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 protection: Goggles recommended during refilling

9 Physical and Chemical Properties

· General Information

· Appearance:

Form: Fluid
Colour: Colourless
Odour: Odourless
Odour threshold: Not determined.
pH-value: Not determined.

· Change in condition

• Melting point/freezing point: 0 °C • Initial boiling point and boiling range: 100 °C

Flash point:
 Flammability (solid, gas):
 Decomposition temperature:
 Ignition temperature:
 Not applicable.
 Not determined.
 Not determined.

• Explosive properties: Product does not present an explosion hazard.

Explosion limits:

· Lower: Not determined. · Upper: Not determined.

· Vapour pressure at 20 °C: 23 hPa · Density at 20 °C: 1 g/cm³

Relative density
 Vapour density
 Evaporation rate
 Not determined.
 Not determined.

· Solubility in / Miscibility with

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

· Viscosity:

Dynamic at 20 °C: 0.952 mPas
 Kinematic: Not determined.
 Water: 80 - 100 %
 VOC (EC) 0.00 %

· Other information No further relevant information available.

10 Stability and Reactivity

· Reactivity No further relevant information available.

(Contd. on page 4)



Printing date 29.04.2024 Version number 3 Revision: 29.04.2024

Trade name: Elution Buffer 5

(Contd. of page 3)

- Thermal decomposition / conditions to be avoided:
 No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

- · Information on toxicological effects
- · 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.

12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not hazardous for water.
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · 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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Printing date 29.04.2024 Version number 3 Revision: 29.04.2024

Trade name: Elution Buffer 5

(Contd. of page 4)

UN-Number	
ADG, IMDG, IATA	not regulated
UN proper shipping name ADG, IMDG, IATA	not regulated
Transport hazard class(es)	
ADG, ADN, IMDG, IATA	
Class	not regulated
Packing group	
ADG, IMDG, IATA	not regulated
Environmental hazards:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Ann	ex II of
Marpol and the IBC Code	Not applicable.
UN "Model Regulation":	not regulated

15 Regulatory information

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

· Australian Inventory of Industrial Chemicals

All ingredients are listed.

· Standard for the Uniform Scheduling of Medicines and Poisons

77-86-1 trometamol S4

· Australia: Priority Existing Chemicals

None of the ingredients is listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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

(Contd. on page 6)



Printing date 29.04.2024 Version number 3 Revision: 29.04.2024

Trade name: Elution Buffer 5

EINECS: European Inventory of Existing Commercial 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

* Data compared to the previous version altered.

(Contd. of page 5)



Printing date 29.04.2024 Version number 19 Revision: 29.04.2024

1 Identification

- · Product identifier
- · Trade name: Poly(A) RNA
- · 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
- · 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: -
- · Emergency telephone number:

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

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

2 Hazard(s) Identification

· Classification of the substance or mixture

The substance is not classified, according to the Globally Harmonised System (GHS).

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition and Information on Ingredients

- · Chemical characterisation: Substances
- · CAS No. Description

Poly (A) RNA

4 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.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

(Contd. on page 2)



Printing date 29.04.2024 Version number 19 Revision: 29.04.2024

Trade name: Poly(A) RNA

(Contd. of page 1)

· Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire Fighting Measures

- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Protective equipment: No special measures required.

6 Accidental Release Measures

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

7 Handling and Storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about fire and explosion protection: No special measures required.
- · 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.
- · Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

- · Additional information about design of technical facilities: No further data; see section 7.
- Ingredients with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists valid during the making were used as basis.
- · Personal protective equipment:
- General protective and hygienic measures:

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

- · Respiratory protection: Not required.
- · Protection of hands:

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.

(Contd. on page 3)



Printing date 29.04.2024 Version number 19 Revision: 29.04.2024

Trade name: Poly(A) RNA

(Contd. of page 2)

· Penetration time of glove material

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

· Eye protection: Not required.

9 Physical and Chemical Properties

· General Information

· Appearance:

Form: Powder
Colour: Transparent
Odour: Odourless
Odour threshold: Not determined.
pH-value: Not applicable.

· Change in condition

Melting point/freezing point: Undetermined.
 Initial boiling point and boiling range: Undetermined.
 Flash point: Not applicable.

· Flammability (solid, gas): Product is not flammable.

Decomposition temperature: Not determined. Ignition temperature: Not determined.

• Explosive properties: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.
Upper: Not determined.
Vapour pressure: Not applicable.
Density: Not determined.
Relative density Not determined.
Vapour density Not applicable.
Evaporation rate Not applicable.

· Solubility in / Miscibility with

· water: Soluble.

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

· Viscosity:

Dynamic: Not applicable.
Kinematic: Not applicable.
Solids content: 100.0 %

• Other information No further relevant information available.

10 Stability and Reactivity

- · Reactivity No further relevant information available.
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.

(Contd. on page 4)



Printing date 29.04.2024 Version number 19 Revision: 29.04.2024

Trade name: Poly(A) RNA

(Contd. of page 3)

· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

- · Information on toxicological effects
- · 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.

12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · 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.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · 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.

not regulated

14 Transport information

- · UN-Number
- · ADG, ADN, IMDG, IATA

(Contd. on page 5)



Printing date 29.04.2024 Version number 19 Revision: 29.04.2024

Trade name: Poly(A) RNA

		(Contd. of page 4)
· UN proper shipping name · ADG, ADN, IMDG, IATA	not regulated	
· Transport hazard class(es)		
· ADG, ADN, IMDG, IATA · Class	not regulated	
· Packing group · ADG, IMDG, IATA	not regulated	
· Environmental hazards: · Marine pollutant:	No	
· Special precautions for user	Not applicable.	
Transport in bulk according to Anne Marpol and the IBC Code	x II of Not applicable.	
· UN "Model Regulation":	not regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Australian Inventory of Industrial Chemicals

Substance is not listed.

· Standard for the Uniform Scheduling of Medicines and Poisons

Substance is not listed.

· Australia: Priority Existing Chemicals

Substance is not listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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

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.



Version number 22 Revision: 29.04.2024 Printing date 29.04.2024

1 Identification

- · Product identifier
- · Trade name: Poly(A) RNA Buffer
- · 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
- · 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: -
- · Emergency telephone number:

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

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

2 Hazard(s) Identification

· Classification of the substance or mixture



Acute Tox. 4 H302 Harmful if swallowed. Acute Tox. 4 H312 Harmful in contact with skin. Serious eye damage/irritation - Category 2A H319 Causes serious eye irritation.

- · Label elements
- · GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms



GHS07

- · Signal word Warning
- · Hazard-determining components of labelling:

quanidinium thiocyanate (20-40 %)

· Hazard statements

Harmful if swallowed.

Harmful in contact with skin.

Causes serious eye irritation.

Precautionary statements

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

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

Specific treatment (see on this label).

Rinse mouth.

(Contd. on page 2)



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Trade name: Poly(A) RNA Buffer

(Contd. of page 1)

Take off contaminated clothing and wash it before reuse.

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

· Additional information:

Contact with acids liberates very toxic gas.

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

3 Composition and Information on Ingredients

- · Chemical characterisation: Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.
- · Dangerous components:

593-84-0 guanidinium thiocyanate

20-40%

· Additional information:

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

7732-18-5 water, distilled, conductivity or of similar purity

60-80%

4 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.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire Fighting Measures

- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Protective equipment: No special measures required.

6 Accidental Release Measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions:

Dilute with plenty of water.

(Contd. on page 3)



Printing date 29.04.2024 Version number 22 Revision: 29.04.2024

Trade name: Poly(A) RNA Buffer

(Contd. of page 2)

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

· 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.

· 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.

7 Handling and Storage

- · Handling:
- · Precautions for safe handling No special precautions are necessary if used correctly.
- · Information about fire and explosion protection: No special measures required.
- · 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.
- · Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

- · Additional information about design of technical facilities: No further data; see section 7.
- · 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.
- · 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.
- · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)



Printing date 29.04.2024 Version number 22 Revision: 29.04.2024

Trade name: Poly(A) RNA Buffer

(Contd. of page 3)

· Penetration time of glove material

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

Eye protection:



Tightly sealed goggles

9 Physical and Chemical Properties

· General Information

· Appearance:

· Form: Fluid

· Colour: According to product specification

Odour: Characteristic
 Odour threshold: Not determined.
 pH-value: Not determined.

Change in condition

Melting point/freezing point:
 Initial boiling point and boiling range:
 Flash point:
 Flammability (solid, gas):
 Decomposition temperature:
 Undetermined.
 Not applicable.
 Not determined.

Ignition temperature: Product is not selfigniting.

• Explosive properties: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined.
Upper: Not determined.
Vapour pressure at 20 °C: 23 hPa
Density at 20 °C: 1.073 g/cm³
Relative density Not determined.
Vapour density Not determined.
Evaporation rate Not determined.

· Solubility in / Miscibility with

• water: Fully miscible. • Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic: Not determined.Kinematic: Not determined.

· Solvent content:

· Water: 60 - 80 %

• Other information No further relevant information available.

10 Stability and Reactivity

· Reactivity No further relevant information available.

(Contd. on page 5)



Printing date 29.04.2024 Version number 22 Revision: 29.04.2024

Trade name: Poly(A) RNA Buffer

(Contd. of page 4)

- · Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

- · Information on toxicological effects
- · Acute toxicity

Harmful if swallowed.

Harmful in contact with skin.

· LD/LC50 values relevant for classification:

593-84-0 guanidinium thiocyanate

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

- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Causes serious eye irritation.
- · 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.

12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · 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.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

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Printing date 29.04.2024 Version number 22 Revision: 29.04.2024

Trade name: Poly(A) RNA Buffer

(Contd. of page 5)

13 Disposal considerations

- · 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.

UN-Number	
ADG, ADN, IMDG, IATA	not regulated
UN proper shipping name ADG, ADN, IMDG, IATA	not regulated
Transport hazard class(es)	
ADG, ADN, IMDG, IATA Class	not regulated
Packing group ADG, IMDG, IATA	not regulated
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Ann Marpol and the IBC Code	ex II of Not applicable.
UN "Model Regulation":	not regulated

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Australian Inventory of Industrial Chemicals

All ingredients are listed.

· Standard for the Uniform Scheduling of Medicines and Poisons

None of the ingredients is listed.

· Australia: Priority Existing Chemicals

None of the ingredients is listed.

· GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

(Contd. on page 7)



Revision: 29.04.2024 Printing date 29.04.2024 Version number 22

Trade name: Poly(A) RNA Buffer

· Hazard pictograms





· Signal word Warning

· Hazard-determining components of labelling:

guanidinium thiocyanate (20-40 %)

· Hazard statements

Harmful if swallowed.

Harmful in contact with skin.

Causes serious eye irritation.

· Precautionary statements

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

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

Specific treatment (see on this label).

Rinse mouth.

Take off contaminated clothing and wash it before reuse.

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

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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

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

Serious eye damage/irritation - Category 2A: Serious eye damage/eye irritation - Category 2A

* Data compared to the previous version altered.



Printing date 13.12.2023 Version number 30 Revision: 13.12.2023

1 Identification

· Product identifier

· Trade name: Proteinase K

• **CAS Number:** 39450-01-6

EC number: 254-457-8

- 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
- 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: -
- · Emergency telephone number:

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

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

2 Hazard(s) Identification

· Classification of the substance or mixture



GHS08 health hazard

Resp. Sens. 1

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Serious eye damage/irritation – Category 2A H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation.

· Label elements

GHS label elements

The substance is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms





GHS07 GHS08

- · Signal word Danger
- · Hazard-determining components of labelling:

Proteinase, Tritirachium album serine

(Contd. on page 2)



Printing date 13.12.2023 Version number 30 Revision: 13.12.2023

Trade name: Proteinase K

(Contd. of page 1)

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

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

May cause respiratory irritation.

Precautionary statements

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

Wear eye protection / face protection.

Wear respiratory protection.

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

Store locked up.

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

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

3 Composition and Information on Ingredients

- · Chemical characterisation: Substances
- CAS No. Description

39450-01-6 Proteinase, Tritirachium album serine

· Identification number(s) · EC number: 254-457-8

4 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 eve contact:

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

- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire Fighting Measures

- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Protective equipment: No special measures required.

6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures Not required.

(Contd. on page 3)



Printing date 13.12.2023 Version number 30 Revision: 13.12.2023

Trade name: Proteinase K

(Contd. of page 2)

· Environmental precautions: No special measures required.

Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

· 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.

7 Handling and Storage

- · Handling:
- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about fire and explosion protection: No special measures required.
- · 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.
- · Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

- · Additional information about design of technical facilities: No further data; see section 7.
- Ingredients with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists valid during the making were used as basis.
- · 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.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

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.

(Contd. on page 4)



Printing date 13.12.2023 Version number 30 Revision: 13.12.2023

Trade name: Proteinase K

· Eye protection:

(Contd. of page 3)



Tightly sealed goggles

9 Physical and Chemical Properties

· General Information

· Appearance:

· Form: Solid

Colour: Not determined.
Odour: Characteristic
Odour threshold: Not determined.
pH-value: Not applicable.

· Change in condition

Melting point/freezing point: Undetermined.
 Initial boiling point and boiling range: Undetermined.
 Flash point: Not applicable.

Flammability (solid, gas): Product is not flammable.

Decomposition temperature: Not determined.Ignition temperature: Not determined.

Explosive properties: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.
 Upper: Not determined.
 Vapour pressure: Not applicable.
 Density at 20 °C: 1.1 g/cm³
 Relative density Not determined.
 Vapour density Not applicable.
 Evaporation rate Not applicable.

· Solubility in / Miscibility with

· water: Soluble.

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

· Viscosity:

Dynamic: Not applicable.
Kinematic: Not applicable.
Solids content: 100.0 %

· Other information No further relevant information available.

10 Stability and Reactivity

- · Reactivity No further relevant information available.
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.

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· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

- · Information on toxicological effects
- · 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.
- · Respiratory or skin sensitisation
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- · 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 May cause respiratory irritation.
- · 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.

12 Ecological Information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not hazardous for water.
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · 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.

14 Transport information

- · UN-Number
- · ADG, ADN, IMDG, IATA

not regulated

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Trade name: Proteinase K

		(Contd. of page 5)
· UN proper shipping name · ADG, ADN, IMDG, IATA	not regulated	
· Transport hazard class(es)		
· ADG, ADN, IMDG, IATA · Class	not regulated	
· Packing group · ADG, IMDG, IATA	not regulated	
· Environmental hazards: · Marine pollutant:	No	
· Special precautions for user	Not applicable.	
· Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.		
· UN "Model Regulation":	not regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Australian Inventory of Industrial Chemicals

Substance is not listed.

Standard for the Uniform Scheduling of Medicines and Poisons

Substance is not listed.

· Australia: Priority Existing Chemicals

Substance is not listed.

· GHS label elements

The substance is classified and labelled according to the Globally Harmonised System (GHS).

· Hazard pictograms





GHS07 GHS08

- · Signal word Danger
- · Hazard-determining components of labelling:

Proteinase, Tritirachium album serine

Hazard statements

Causes skin irritation.

Causes serious eye irritation.

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

May cause respiratory irritation.

· Precautionary statements

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

Wear eye protection / face protection.

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(Contd. of page 6)

Wear respiratory protection.

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

Store locked up.

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

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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

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

Serious eye damage/irritation - Category 2A: Serious eye damage/eye irritation - Category 2A

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.

ΑU