

# Safety data sheet

**Manufacturer/Supplier:**

biotechrabbit GmbH, Volmerstr. 9, 12489 Berlin, Germany

Office: +49 (0) 30 555 78 21 0, Fax: +49 (0) 30 555 78 21 99, Email: [sds@biotechrabbit.com](mailto:sds@biotechrabbit.com)

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**Trade name:** GenUP™ Plant DNA Kit

**Catalog number:** BR07008--

(where "--" is any number from 00 to 99 for different package sizes)

**Kit components:**

K00123	Buffer LYSIS LC
K00129	Buffer LYSIS LS
K00124	Buffer LYSIS LD
K00111	Buffer BINDING BD
K00143	Proteinase K lyophilized
K00133	Buffer PRECIPITATION
K00137	Buffer WASH C
K00120	Buffer ELUTION

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 29.03.2019

Version number: 4

Revision: 29.03.2019

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

#### 1.1 Product identifier

Trade name: Buffer LYSIS LC (K00123)

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

No further relevant information available.

**Application of the substance / the preparation:** Laboratory chemicals

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

##### Manufacturer/Supplier:

biotechrabbit GmbH  
Volmerstr. 9  
12489 Berlin  
Germany

Office: +49 (0) 30 555 78 21 0

Fax: +49 (0) 30 555 78 21 99

Email: sds@biotechrabbit.com

www.biotechrabbit.com

**Further information obtainable from:** biotechrabbit GmbH

#### 1.4 Emergency telephone number:

Giftinformationszentrum-Nord / GIZ-Nord Poisons Centre

Telefon / Phone +49 (0) 551-19240

24h / 7d

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

#### 2.2 Label elements:

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

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

**Hazard pictograms:**



GHS07 GHS09

**Signal word:** Warning

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**Trade name: Buffer LYSIS LC (K00123)**

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**Hazard statements:**

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

**Precautionary statements:**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear eye protection / face protection.

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

P337+P313 If eye irritation persists: Get medical advice/attention.

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

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

CAS: 12125-02-9	ammonium chloride	>10-≤25%
EINECS: 235-186-4	⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319	
CAS: 57-09-0	cetrimonium bromide	≥0.25-≤2.5%
EINECS: 200-311-3	⚠ STOT RE 2, H373; ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=100); ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335	

**Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

**After swallowing:** Call a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media:****Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture:** No further relevant information available.**5.3 Advice for firefighters:****Protective equipment:**

Mouth respiratory protective device.

Do not inhale explosion gases or combustion gases.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures:** Wear protective clothing.**6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.**6.3 Methods and material for containment and cleaning up:**

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

Ensure adequate ventilation.

**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling:** Store in cool, dry place in tightly closed receptacles.**Information about fire - and explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:** Store away from foodstuffs.**Further information about storage conditions:** None.**7.3 Specific end use(s):** No further relevant information available.

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**SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:****12125-02-9 ammonium chloride**WEL Short-term value: 20 mg/m<sup>3</sup>Long-term value: 10 mg/m<sup>3</sup>**8.2 Exposure controls:****Personal protective equipment:****General protective and hygienic measures:**

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

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

**Respiratory protection:** Not necessary if room is well-ventilated.**Protection of hands:** Protective gloves**Material of gloves:**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.35$  mm

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.

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**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

### SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties:****General Information:****Appearance:**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.
<b>pH-value:</b>	8

**Change in condition:**

<b>Melting point/freezing point:</b>	0 °C
<b>Initial boiling point and boiling range:</b>	100 °C

**Flash point:** Not applicable.**Flammability (solid, gas):** Not applicable.**Decomposition temperature:** Not determined.**Auto-ignition temperature:** Product is not selfigniting.**Explosive properties:** Product does not present an explosion hazard.**Explosion limits:**

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

**Vapour pressure at 20 °C:** 23 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:**

<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.

**9.2 Other information:** No further relevant information available.

### SECTION 10: Stability and reactivity

**10.1 Reactivity:** No further relevant information available.**10.2 Chemical stability:****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions:** No dangerous reactions known.**10.4 Conditions to avoid:** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.

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**10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

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### SECTION 11: Toxicological information

**11.1 Information on toxicological effects:****Acute toxicity** Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:****12125-02-9 ammonium chloride**

Oral LD50 1,650 mg/kg (rat)

**Primary irritant effect:****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.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):****Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.

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### SECTION 12: Ecological information

**12.1 Toxicity:****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability:** No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

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

**12.5 Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects:** No further relevant information available.

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### SECTION 13: Disposal considerations

**13.1 Waste treatment methods:****European waste catalogue:**

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

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

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### SECTION 14: Transport information

**14.1 UN-Number:**

ADR, IMDG, IATA

UN3082

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**14.2 UN proper shipping name:**

ADR

3082 ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE, LIQUID, N.O.S. (cetrimonium bromide)

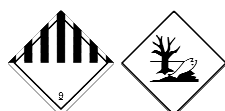
IMDG

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S. (cetrimonium bromide), MARINE  
POLLUTANT

IATA

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S. (cetrimonium bromide)**14.3 Transport hazard class(es):**

ADR, IMDG, IATA



Class:

9 Miscellaneous dangerous substances and articles.

Label:

9

**14.4 Packing group:**

ADR, IMDG, IATA

III

**14.5 Environmental hazards:**Product contains environmentally hazardous  
substances: cetrimonium bromide

Marine pollutant:

Symbol (fish and tree)

Special marking (ADR):

Symbol (fish and tree)

Special marking (IATA):

Symbol (fish and tree)

**14.6 Special precautions for user:**Warning: Miscellaneous dangerous substances and  
articles.

Danger code (Kemler):

90

EMS Number:

F-A,S-F

Stowage Category

A

**14.7 Transport in bulk according to Annex II of  
Marpol and the IBC Code**

Not applicable.

**Transport/Additional information:**

ADR

Limited quantities (LQ):

5L

Transport category:

3

Tunnel restriction code:

E

UN "Model Regulation":

UN 3082 ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE, LIQUID, N.O.S. (CETRIMONIUM  
BROMIDE), 9, III**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

Directive 2012/18/EU

Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 65

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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**Relevant phrases:**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H373 May cause damage to the gastro-intestinal tract through prolonged or repeated exposure. Route of exposure: Oral.

H400 Very toxic to aquatic life.

**Training hints:**

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

**Department issuing SDS:**

ADEEGO GmbH

Wildsteig 4A

D-42113 Wuppertal

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Fax. +49 (0) 202 2575701

Email: mail@adeego.de

www.adeego.de

**Contact:** Dr. Axel Deeg**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

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

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

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

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

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1



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

#### 1.1 Product identifier

Trade name: Buffer LYSIS LS (K00129)

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

No further relevant information available.

**Application of the substance / the preparation:** Laboratory chemicals

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

##### Manufacturer/Supplier:

biotechrabbit GmbH  
Volmerstr. 9  
12489 Berlin  
Germany

Office: +49 (0) 30 555 78 21 0

Fax: +49 (0) 30 555 78 21 99

Email: sds@biotechrabbit.com

www.biotechrabbit.com

**Further information obtainable from:** biotechrabbit GmbH

#### 1.4 Emergency telephone number:

Giftinformationszentrum-Nord / GIZ-Nord Poisons Centre  
Telefon / Phone +49 (0) 551-19240  
24h / 7d

For Hazardous Materials [or Dangerous Goods] Incident  
Spill, Leak, Fire, Exposure, or Accident  
Call CHEMTREC Day or Night  
Within USA and Canada: 1-800-424-9300  
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture:

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

The product is not classified, according to the CLP regulation.

#### 2.2 Label elements:

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

**Hazard pictograms:** Void

**Signal word:** Void

**Hazard statements:** Void

#### 2.3 Other hazards:

##### Results of PBT and vPvB assessment:

**PBT:** Not applicable.


**vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

#### 3.2 Chemical characterisation: Mixtures

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

##### Dangerous components:

CAS: 151-21-3 sodium dodecyl sulphate  $\geq 0.1$ - $\leq 2.5\%$   
EINECS: 205-788-1  Eye Dam. 1, H318;  Acute Tox. 4, H302; Skin Irrit. 2, H315; Aquatic  
Chronic 3, H412

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**Trade name: Buffer LYSIS LS (K00129)**

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

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### SECTION 4: First aid measures

**4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

**After swallowing:** Call a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

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

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### SECTION 5: Firefighting measures

**5.1 Extinguishing media:****Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture:** No further relevant information available.**5.3 Advice for firefighters:****Protective equipment:**

Mouth respiratory protective device.

Do not inhale explosion gases or combustion gases.

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### SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures:** Wear protective clothing.**6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.**6.3 Methods and material for containment and cleaning up:**

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

Ensure adequate ventilation.

**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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### SECTION 7: Handling and storage

**7.1 Precautions for safe handling:** Store in cool, dry place in tightly closed receptacles.**Information about fire - and explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:** Store away from foodstuffs.**Further information about storage conditions:** None.

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

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

Additional information about design of technical facilities: No further data; see item 7.

##### 8.1 Control parameters:

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

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

##### 8.2 Exposure controls:

##### Personal protective equipment:

##### General protective and hygienic measures:

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

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

**Respiratory protection:** Not necessary if room is well-ventilated.

**Protection of hands:** Protective gloves

##### Material of gloves:

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.35$  mm

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:** Tightly sealed goggles

#### SECTION 9: Physical and chemical properties

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

##### General Information:

##### Appearance:

**Form:** Fluid

**Colour:** Clear

**Odour:** Characteristic

**Odour threshold:** Not determined.

**pH-value at 20 °C:** 8

##### Change in condition:

**Melting point/freezing point:** 0 °C

**Initial boiling point and boiling range:** 100 °C

**Flash point:** Not applicable.

**Flammability (solid, gas):** Not applicable.

**Decomposition temperature:** Not determined.

**Auto-ignition temperature:** Product is not selfigniting.

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

##### Explosion limits:

**Lower:** Not determined.

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<b>Upper:</b>	Not determined.
<b>Vapour pressure at 20 °C:</b>	23 hPa
<b>Density:</b>	Not determined.
<b>Relative density:</b>	Not determined.
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	Fully miscible.
<b>Partition coefficient: n-octanol/water:</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>9.2 Other information:</b>	No further relevant information available.

#### SECTION 10: Stability and reactivity

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

**10.2 Chemical stability:**

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions:** No dangerous reactions known.

**10.4 Conditions to avoid:** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

#### SECTION 11: Toxicological information

**11.1 Information on toxicological effects:**

**Acute toxicity** Based on available data, the classification criteria are not met.

**Primary irritant effect:**

**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.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

**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.

#### SECTION 12: Ecological information

**12.1 Toxicity:**

**Aquatic toxicity:** No further relevant information available.

**12.2 Persistence and degradability:** No further relevant information available.

**12.3 Bioaccumulative potential:** No further relevant information available.

**12.4 Mobility in soil:** No further relevant information available.

**Additional ecological information:**

**General notes:**

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

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

**12.5 Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects:** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods:****European waste catalogue:**

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

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number:**

ADR, ADN, IMDG, IATA Void

**14.2 UN proper shipping name:**

ADR, ADN, IMDG, IATA Void

**14.3 Transport hazard class(es):**

ADR, ADN, IMDG, IATA

**Class:** Void**14.4 Packing group:**

ADR, IMDG, IATA Void

**14.5 Environmental hazards:****Marine pollutant:** No**14.6 Special precautions for user:** Not applicable.**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

**UN "Model Regulation":** Void**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

No further relevant information available.

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases:**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.

**Training hints:**

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

**Department issuing SDS:**

ADEEGO GmbH

Wildsteig 4A

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**Trade name: Buffer LYSIS LS (K00129)**

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D-42113 Wuppertal  
Tel. +49 (0) 202 2575700  
Fax. +49 (0) 202 2575701  
Email: mail@adeego.de  
www.adeego.de

**Contact:** Dr. Axel Deeg

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Acute Tox. 4: Acute toxicity – Category 4  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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## Safety data sheet

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

Printing date: 29.03.2019

Version number: 4

Revision: 29.03.2019

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

##### 1.1 Product identifier

**Trade name:** Buffer LYSIS LD (K00124)

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

No further relevant information available.

**Application of the substance / the preparation:** Laboratory chemicals

**Uses advised against:** No further information available.

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

###### Manufacturer/Supplier:

biotechrabbit GmbH  
 Volmerstr. 9  
 12489 Berlin  
 Germany

Office: +49 (0) 30 555 78 21 0

Fax: +49 (0) 30 555 78 21 99

Email: sds@biotechrabbit.com

www.biotechrabbit.com

**Further information obtainable from:** biotechrabbit GmbH

##### 1.4 Emergency telephone number:

Giftinformationszentrum-Nord / GIZ-Nord Poisons Centre  
 Telefon / Phone +49 (0) 551-19240  
 24h / 7d

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

#### SECTION 2: Hazards identification

##### 2.1 Classification of the substance or mixture:

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

The product is not classified, according to the CLP regulation.

##### 2.2 Label elements:

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

**Hazard pictograms:** Void

**Signal word:** Void

**Hazard statements:** Void

##### 2.3 Other hazards:

###### Results of PBT and vPvB assessment:

**PBT:** Not applicable.

**vPvB:** Not applicable.

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

##### 3.2 Chemical characterisation: Mixtures

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

###### Dangerous components:

CAS: 151-21-3	sodium dodecyl sulphate	>2.5-≤10%
EINECS: 205-788-1	☞ Eye Dam. 1, H318; ☞ Acute Tox. 4, H302; Skin Irrit. 2, H315; Aquatic Chronic 3, H412	

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 29.03.2019

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**Trade name: Buffer LYSIS LD (K00124)**

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

### SECTION 4: First aid measures

**4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

**After swallowing:** Call a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

### SECTION 5: Firefighting measures

**5.1 Extinguishing media:****Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture:** No further relevant information available.**5.3 Advice for firefighters:****Protective equipment:**

Do not inhale explosion gases or combustion gases.

Mouth respiratory protective device.

### SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures:** Wear protective clothing.**6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.**6.3 Methods and material for containment and cleaning up:**

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

Ensure adequate ventilation.

**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### SECTION 7: Handling and storage

**7.1 Precautions for safe handling:** Store in cool, dry place in tightly closed receptacles.**Information about fire - and explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:** Store away from foodstuffs.**Further information about storage conditions:** None.

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## Safety data sheet

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

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Revision: 29.03.2019

Trade name: Buffer LYSIS LD (K00124)

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

### SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

#### 8.1 Control parameters:

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

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

#### 8.2 Exposure controls:

##### Personal protective equipment:

##### General protective and hygienic measures:

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

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

**Respiratory protection:** Not necessary if room is well-ventilated.

**Protection of hands:** Protective gloves

##### Material of gloves:

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.35$  mm

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:** Tightly sealed goggles

### SECTION 9: Physical and chemical properties

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

##### General Information:

##### Appearance:

**Form:** Fluid

**Colour:** Clear

**Odour:** Characteristic

**Odour threshold:** Not determined.

**pH-value at 20 °C:** 8

##### Change in condition:

**Melting point/freezing point:** 0 °C

**Initial boiling point and boiling range:** 100 °C

**Flash point:** Not applicable.

**Flammability (solid, gas):** Not applicable.

**Decomposition temperature:** Not determined.

**Auto-ignition temperature:** Product is not selfigniting.

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

##### Explosion limits:

**Lower:** Not determined.

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## Safety data sheet

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

Printing date: 29.03.2019

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Trade name: Buffer LYSIS LD (K00124)

(Contd. of page 3)

<b>Upper:</b>	Not determined.
<b>Vapour pressure at 20 °C:</b>	23 hPa
<b>Density:</b>	Not determined.
<b>Relative density:</b>	Not determined.
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	Fully miscible.
<b>Partition coefficient: n-octanol/water:</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>9.2 Other information:</b>	No further relevant information available.

#### SECTION 10: Stability and reactivity

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

**10.2 Chemical stability:**

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions:** No dangerous reactions known.

**10.4 Conditions to avoid:** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

#### SECTION 11: Toxicological information

**11.1 Information on toxicological effects:**

**Acute toxicity** Based on available data, the classification criteria are not met.

**Primary irritant effect:**

**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.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

**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.

#### SECTION 12: Ecological information

**12.1 Toxicity:**

**Aquatic toxicity:** No further relevant information available.

**12.2 Persistence and degradability:** No further relevant information available.

**12.3 Bioaccumulative potential:** No further relevant information available.

**12.4 Mobility in soil:** No further relevant information available.

**Additional ecological information:**

**General notes:**

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

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

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## Safety data sheet

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

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Version number: 4

Revision: 29.03.2019

**Trade name: Buffer LYSIS LD (K00124)**

(Contd. of page 4)

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

**12.5 Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects:** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods:****European waste catalogue:**

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

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number:**

ADR, ADN, IMDG, IATA Void

**14.2 UN proper shipping name:**

ADR, ADN, IMDG, IATA Void

**14.3 Transport hazard class(es):**

ADR, ADN, IMDG, IATA

**Class:** Void**14.4 Packing group:**

ADR, IMDG, IATA Void

**14.5 Environmental hazards:****Marine pollutant:** No**14.6 Special precautions for user:** Not applicable.**14.7 Transport in bulk according to Annex II of****Marpol and the IBC Code** Not applicable.**UN "Model Regulation":** Void**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

No further relevant information available.

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases:**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.

**Training hints:**

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

**Department issuing SDS:**

ADEEGO GmbH

Wildsteig 4A

D-42113 Wuppertal

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

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**Trade name: Buffer LYSIS LD (K00124)**

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(Contd. of page 5)

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**Contact:** Dr. Axel Deeg

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

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

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

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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## Safety data sheet

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

Printing date: 27.03.2019

Version number: 5

Revision: 27.03.2019

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

##### 1.1 Product identifier

**Trade name: Buffer BINDING BD (K00111)**

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

No further relevant information available.

**Application of the substance / the preparation:** Laboratory chemicals

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

###### Manufacturer/Supplier:

biotechrabbit GmbH  
 Volmerstr. 9  
 12489 Berlin  
 Germany

Office: +49 (0) 30 555 78 21 0

Fax: +49 (0) 30 555 78 21 99

Email: [sds@biotechrabbit.com](mailto:sds@biotechrabbit.com)

[www.biotechrabbit.com](http://www.biotechrabbit.com)

**Further information obtainable from:** biotechrabbit GmbH

##### 1.4 Emergency telephone number:

Giftinformationszentrum-Nord / GIZ-Nord Poisons Centre

Telefon / Phone +49 (0) 551-19240

24h / 7d

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

#### SECTION 2: Hazards identification

##### 2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:



GHS02 flame

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



GHS05 corrosion

Eye Dam. 1      H318 Causes serious eye damage.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2      H315 Causes skin irritation.

STOT SE 3      H336 May cause drowsiness or dizziness.

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## Safety data sheet

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

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Trade name: Buffer BINDING BD (K00111)

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**2.2 Label elements:****Labelling according to Regulation (EC) No 1272/2008:**

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

**Hazard pictograms:**

GHS02 GHS05 GHS07 GHS09


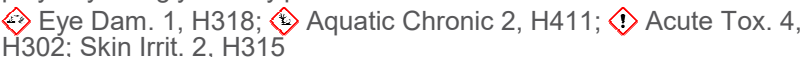
**Signal word:** Danger**Hazard-determining components of labelling:**polyethylene glycol octylphenol ether  
propan-2-ol**Hazard statements:**

H225 Highly flammable liquid and vapour.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H336 May cause drowsiness or dizziness.  
 H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements:**

P101 If medical advice is needed, have product container or label at hand.  
 P102 Keep out of reach of children.  
 P103 Read label before use.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER/doctor.  
 P321 Specific treatment (see on this label).  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

CAS: 67-63-0	propan-2-ol	>50-≤100%
EINECS: 200-661-7		
CAS: 9002-93-1	polyethylene glycol octylphenol ether	>25-≤50%
		

**SVHC:**

9002-93-1 polyethylene glycol octylphenol ether

(Contd. on page 3)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 27.03.2019

Version number: 5

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**Trade name: Buffer BINDING BD (K00111)**

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(Contd. of page 2)

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

### SECTION 4: First aid measures

**4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

**After swallowing:** Call a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

### SECTION 5: Firefighting measures

**5.1 Extinguishing media:****Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture:** Can form explosive gas-air mixtures.**5.3 Advice for firefighters:****Protective equipment:**

Do not inhale explosion gases or combustion gases.

Mouth respiratory protective device.

### SECTION 6: Accidental release measures

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

Ensure adequate ventilation.

Keep away from ignition sources.

Wear protective clothing.

**6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.**6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

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

**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### SECTION 7: Handling and storage

**7.1 Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Store in cool, dry place in tightly closed receptacles.

**Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Fumes can combine with air to form an explosive mixture.

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## Safety data sheet

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

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Flammable gas-air mixtures may form in empty receptacles.

**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:**

Store away from oxidising agents.

Store away from foodstuffs.

**Further information about storage conditions:**

Keep container tightly sealed.

Store receptacle in a well ventilated area.

**7.3 Specific end use(s):** No further relevant information available.**SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:****67-63-0 propan-2-ol**WEL Short-term value: 1250 mg/m<sup>3</sup>, 500 ppmLong-term value: 999 mg/m<sup>3</sup>, 400 ppm**8.2 Exposure controls:****Personal protective equipment:****General protective and hygienic measures:**

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

Immediately remove all soiled and contaminated clothing.

Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A

**Protection of hands:** Protective gloves**Material of gloves:**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.35$  mm

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:** Tightly sealed goggles**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties:****General Information:****Appearance:****Form:** Fluid**Colour:** Clear**Odour:** Characteristic**Odour threshold:** Not determined.**pH-value:** Not determined.

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**Change in condition:****Melting point/freezing point:** Undetermined.**Initial boiling point and boiling range:** Undetermined.**Flash point:** < 21 °C**Flammability (solid, gas):** Not applicable.**Ignition temperature:** 425 °C**Decomposition temperature:** Not determined.**Auto-ignition temperature:** Product is not selfigniting.**Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.**Explosion limits:****Lower:** 2.0 Vol %**Upper:** 12.0 Vol %**Vapour pressure at 20 °C:** 43 hPa**Density:** Not determined.**Relative density:** Not determined.**Vapour density:** Not determined.**Evaporation rate:** Not determined.**Solubility in / Miscibility with water:**

Soluble.

**Partition coefficient: n-octanol/water:** Not determined.**Viscosity:****Dynamic:** Not determined.**Kinematic:** Not determined.**9.2 Other information:** No further relevant information available.**SECTION 10: Stability and reactivity****10.1 Reactivity:** No further relevant information available.**10.2 Chemical stability:****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions:** Forms explosive gas mixture with air.**10.4 Conditions to avoid:** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:**

Flammable gases/vapours

Carbon monoxide and carbon dioxide

**SECTION 11: Toxicological information****11.1 Information on toxicological effects:****Acute toxicity** Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:****67-63-0 propan-2-ol**

Oral LD50 5,045 mg/kg (rat)

Dermal LD50 12,800 mg/kg (rabbit)

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## Safety data sheet

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**Trade name: Buffer BINDING BD (K00111)**

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Inhalative LC50/4 h 30 mg/l (rat)

**9002-93-1 polyethylene glycol octylphenol ether**

Oral LD50 1,800 mg/kg (rat)

Dermal LD50 8,000 mg/kg (rabbit)

**Primary irritant effect:****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.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):****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 drowsiness or dizziness.

**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.**SECTION 12: Ecological information****12.1 Toxicity:****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability:** No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

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.

**12.5 Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects:** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods:****European waste catalogue:**

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

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number:**

ADR, IMDG, IATA

UN1219

**14.2 UN proper shipping name:**

ADR

1219 ISOPROPANOL (ISOPROPYL ALCOHOL),  
ENVIRONMENTALLY HAZARDOUS

IMDG

ISOPROPANOL (ISOPROPYL ALCOHOL), MARINE  
POLLUTANT

(Contd. on page 7)

## Safety data sheet

according to 1907/2006/EC, Article 31

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Trade name: Buffer BINDING BD (K00111)

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IATA

ISOPROPANOL (ISOPROPYL ALCOHOL)

14.3 Transport hazard class(es):

ADR, IMDG



Class:

3 Flammable liquids.

Label:

3

IATA



Class:

3 Flammable liquids.

Label:

3

14.4 Packing group:

ADR, IMDG, IATA

II

14.5 Environmental hazards:

Marine pollutant:

Symbol (fish and tree)

Special marking (ADR):

Symbol (fish and tree)

14.6 Special precautions for user:

Warning: Flammable liquids.

Danger code (Kemler):

33

EMS Number:

F-E,S-D

Stowage Category

B

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ):

1L

Transport category:

2

Tunnel restriction code:

D/E

UN "Model Regulation":

UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

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

Directive 2012/18/EU

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

LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)

9002-93-1 polyethylene glycol octylphenol ether: Sunset date: 2021-01-04

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

National regulations:

Other regulations, limitations and prohibitive regulations:

Substances of very high concern (SVHC) according to REACH, Article 57:

9002-93-1 polyethylene glycol octylphenol ether

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

Printing date: 27.03.2019

Version number: 5

Revision: 27.03.2019

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**Trade name: Buffer BINDING BD (K00111)**


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

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#### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

##### Relevant phrases:

H225 Highly flammable liquid and vapour.  
 H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.  
 H411 Toxic to aquatic life with long lasting effects.

##### Training hints:

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

##### Department issuing SDS:

ADEEGO GmbH  
 Wildsteig 4A  
 D-42113 Wuppertal  
 Tel. +49 (0) 202 2575700  
 Fax. +49 (0) 202 2575701  
 Email: mail@adeego.de  
 www.adeego.de

**Contact:** Dr. Axel Deeg

##### Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 SVHC: Substances of Very High Concern  
 vPvB: very Persistent and very Bioaccumulative  
 Flam. Liq. 2: Flammable liquids – Category 2  
 Acute Tox. 4: Acute toxicity – Category 4  
 Skin Irrit. 2: Skin corrosion/irritation – Category 2  
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 20.03.2019

Version number: 4

Revision: 20.03.2019

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

#### 1.1 Product identifier

Trade name: Proteinase K lyophilized (K00143)

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

No further relevant information available.

**Application of the substance / the preparation:** Laboratory chemicals

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

##### Manufacturer/Supplier:

biotechrabbit GmbH  
Volmerstr. 9  
12489 Berlin  
Germany

Office: +49 (0) 30 555 78 21 0

Fax: +49 (0) 30 555 78 21 99

Email: sds@biotechrabbit.com

www.biotechrabbit.com

**Further information obtainable from:** biotechrabbit GmbH

#### 1.4 Emergency telephone number:

Giftinformationszentrum-Nord / GIZ-Nord Poisons Centre  
Telefon / Phone +49 (0) 551-19240  
24h / 7d

For Hazardous Materials [or Dangerous Goods] Incident  
Spill, Leak, Fire, Exposure, or Accident  
Call CHEMTREC Day or Night  
Within USA and Canada: 1-800-424-9300  
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:



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.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
STOT SE 3 H335 May cause respiratory irritation.

#### 2.2 Label elements:

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

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

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Trade name: Proteinase K lyophilized (K00143)

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**Hazard pictograms:**

GHS07 GHS08

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

proteinase

**Hazard statements:**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

**Precautionary statements:**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

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

P280 Wear protective gloves / eye protection / face protection.

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



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

P405 Store locked up.

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

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

CAS: 39450-01-6 proteinase &gt;50-≤100%

EINECS: 254-457-8  Resp. Sens. 1, H334;  Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335**Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

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## Safety data sheet

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**Trade name: Proteinase K lyophilized (K00143)**

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**After swallowing:** Call a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

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

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### SECTION 5: Firefighting measures

**5.1 Extinguishing media:****Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture:** No further relevant information available.**5.3 Advice for firefighters:****Protective equipment:**

Do not inhale explosion gases or combustion gases.

Mouth respiratory protective device.

---

### SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures:** Wear protective clothing.**6.2 Environmental precautions:**

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

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

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

Pick up mechanically.

Ensure adequate ventilation.

**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

---

### SECTION 7: Handling and storage

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

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### SECTION 8: Exposure controls/personal protection

**Additional information about design of technical facilities:** No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:**The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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## Safety data sheet

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

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**Trade name: Proteinase K lyophilized (K00143)**


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**8.2 Exposure controls:****Personal protective equipment:****General protective and hygienic measures:**

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

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale dust / smoke / mist.

**Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

**Protection of hands:** Protective gloves

**Material of gloves:**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.35$  mm

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:** Tightly sealed goggles

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## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties:****General Information:****Appearance:**

<b>Form:</b>	Solid
<b>Colour:</b>	White
<b>Odour:</b>	Odourless
<b>Odour threshold:</b>	Not determined.
<b>pH-value:</b>	Not applicable.

**Change in condition:**

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	Undetermined.

**Flash point:** Not applicable.

**Flammability (solid, gas):** Not applicable.

**Decomposition temperature:** Not determined.

**Auto-ignition temperature:** Product is not selfigniting.

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

**Explosion limits:**

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

**Vapour pressure:** Not applicable.

**Density:** Not determined.

**Relative density:** Not determined.

**Vapour density:** Not determined.

**Evaporation rate:** Not determined.

**Solubility in / Miscibility with water:**

Soluble.

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## Safety data sheet

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**Trade name: Proteinase K lyophilized (K00143)**

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**Partition coefficient: n-octanol/water:** Not determined.**Viscosity:****Dynamic:** Not determined.**Kinematic:** Not determined.**9.2 Other information:** No further relevant information available.

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**SECTION 10: Stability and reactivity**

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**10.1 Reactivity:** No further relevant information available.**10.2 Chemical stability:****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions:** No dangerous reactions known.**10.4 Conditions to avoid:** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

---

**SECTION 11: Toxicological information**

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**11.1 Information on toxicological effects:****Acute toxicity** Based on available data, the classification criteria are not met.**Primary irritant effect:****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.

May cause an allergic skin reaction.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):****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.

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**SECTION 12: Ecological information**

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**12.1 Toxicity:****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability:** No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

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.

**12.5 Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.

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

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Version number: 4

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Trade name: Proteinase K lyophilized (K00143)

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12.6 Other adverse effects: No further relevant information available.

#### SECTION 13: Disposal considerations

##### 13.1 Waste treatment methods:

###### European waste catalogue:

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

###### Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

#### SECTION 14: Transport information

##### 14.1 UN-Number:

ADR, ADN, IMDG, IATA Void

##### 14.2 UN proper shipping name:

ADR, ADN, IMDG, IATA Void

##### 14.3 Transport hazard class(es):

ADR, ADN, IMDG, IATA

Class: Void

##### 14.4 Packing group:

ADR, IMDG, IATA Void

##### 14.5 Environmental hazards:

Marine pollutant: No

14.6 Special precautions for user: Not applicable.

##### 14.7 Transport in bulk according to Annex II of

Marpol and the IBC Code Not applicable.

UN "Model Regulation": Void

#### SECTION 15: Regulatory information

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

No further relevant information available.

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

#### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

##### Relevant phrases:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

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

H335 May cause respiratory irritation.

##### Training hints:

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

##### Department issuing SDS:

ADEEGO GmbH

Wildsteig 4A

D-42113 Wuppertal

Tel. +49 (0) 202 2575700

Fax. +49 (0) 202 2575701

Email: mail@adeego.de

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

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**Trade name: Proteinase K lyophilized (K00143)**

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www.adeego.de

**Contact:** Dr. Axel Deeg

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

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

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

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

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 29.03.2019

Version number: 4

Revision: 29.03.2019

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

#### 1.1 Product identifier

**Trade name:** Buffer PRECIPITATION (K00133)

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

No further relevant information available.

**Application of the substance / the preparation:** Laboratory chemicals

**Uses advised against:** No further information available.

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

##### Manufacturer/Supplier:

biotechrabbit GmbH  
Volmerstr. 9  
12489 Berlin  
Germany

Office: +49 (0) 30 555 78 21 0

Fax: +49 (0) 30 555 78 21 99

Email: sds@biotechrabbit.com

www.biotechrabbit.com

**Further information obtainable from:** biotechrabbit GmbH

#### 1.4 Emergency telephone number:

Giftinformationszentrum-Nord / GIZ-Nord Poisons Centre

Telefon / Phone +49 (0) 551-19240

24h / 7d

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture:

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

#### 2.2 Label elements:

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

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

**Hazard pictograms:**



GHS07

**Signal word:** Warning

**Hazard statements:**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

(Contd. on page 2)

## Safety data sheet

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

Printing date: 29.03.2019

Version number: 4

Revision: 29.03.2019

**Trade name: Buffer PRECIPITATION (K00133)**

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**Precautionary statements:**

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P280	Wear protective gloves / eye protection / face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P337+P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

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

CAS: 64-19-7	acetic acid	10-<25%
EINECS: 200-580-7	 Flam. Liq. 3, H226;  Skin Corr. 1A, H314	

**Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

**After swallowing:** Call a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media:****Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture:**

Formation of toxic gases is possible during heating or in case of fire.

**5.3 Advice for firefighters:****Protective equipment:**

Mouth respiratory protective device.

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 29.03.2019

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---

**Trade name: Buffer PRECIPITATION (K00133)**

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(Contd. of page 2)

Do not inhale explosion gases or combustion gases.

### SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures:** Wear protective clothing.**6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.**6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

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

**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### SECTION 7: Handling and storage

**7.1 Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Store in cool, dry place in tightly closed receptacles.

**Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:**

Do not store together with alkalis (caustic solutions).

**Further information about storage conditions:**

Keep container tightly sealed.

Store receptacle in a well ventilated area.

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

### SECTION 8: Exposure controls/personal protection

**Additional information about design of technical facilities:** No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:****64-19-7 acetic acid**WEL Short-term value: 50 mg/m<sup>3</sup>, 20 ppmLong-term value: 25 mg/m<sup>3</sup>, 10 ppm**8.2 Exposure controls:****Personal protective equipment:****General protective and hygienic measures:**

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

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

**Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.**Protection of hands:** Protective gloves**Material of gloves:**

Fluorocarbon rubber (Viton)

Recommended thickness of the material:  $\geq 0.4$  mm

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## Safety data sheet

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

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**Trade name: Buffer PRECIPITATION (K00133)**

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

**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

### SECTION 9: Physical and chemical properties

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

##### General Information:

##### Appearance:

<b>Form:</b>	Fluid
<b>Colour:</b>	Clear
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.
<b>pH-value at 20 °C:</b>	5.2

##### Change in condition:

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	100 °C

**Flash point:** Not applicable.

**Flammability (solid, gas):** Not applicable.

**Ignition temperature:** 485 °C

**Decomposition temperature:** Not determined.

**Auto-ignition temperature:** Product is not selfigniting.

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

##### Explosion limits:

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

**Vapour pressure at 20 °C:** 23 hPa

**Density:** Not determined.

**Relative density:** Not determined.

**Vapour density:** Not determined.

**Evaporation rate:** Not determined.

**Solubility in / Miscibility with water:**

Soluble.

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

##### Viscosity:

<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.

**9.2 Other information:** No further relevant information available.

### SECTION 10: Stability and reactivity

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

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 29.03.2019

Version number: 4

Revision: 29.03.2019

---

**Trade name: Buffer PRECIPITATION (K00133)**

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**10.2 Chemical stability:****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions:** No dangerous reactions known.**10.4 Conditions to avoid:** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

---

**SECTION 11: Toxicological information**

---

**11.1 Information on toxicological effects:****Acute toxicity** Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:****64-19-7 acetic acid**

Oral LD50 3,310 mg/kg (rat)

Dermal LD50 1,060 mg/kg (rabbit)

**Primary irritant effect:****Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye irritation.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):****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.

---

**SECTION 12: Ecological information**

---

**12.1 Toxicity:****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability:** No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

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.

**12.5 Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects:** No further relevant information available.

---

**SECTION 13: Disposal considerations**

---

**13.1 Waste treatment methods:****European waste catalogue:**

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

(Contd. on page 6)



## Safety data sheet

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

Printing date: 29.03.2019

Version number: 4

Revision: 29.03.2019

Trade name: Buffer PRECIPITATION (K00133)

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**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information**

14.1 UN-Number:  
ADR, IMDG, IATA UN2790

14.2 UN proper shipping name:  
ADR 2790 ACETIC ACID SOLUTION  
IMDG, IATA ACETIC ACID SOLUTION

14.3 Transport hazard class(es):  
ADR, IMDG, IATA



Class: 8 Corrosive substances.  
Label: 8

14.4 Packing group:  
ADR, IMDG, IATA III

14.5 Environmental hazards:  
Marine pollutant: No

14.6 Special precautions for user: Warning: Corrosive substances.  
Danger code (Kemler): 80  
EMS Number: F-A,S-B  
Segregation groups: Acids  
Stowage Category: A

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable.

**Transport/Additional information:**

ADR

Limited quantities (LQ): 5L  
Transport category: 3  
Tunnel restriction code: E  
UN "Model Regulation": UN 2790 ACETIC ACID SOLUTION, 8, III

**SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:  
REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

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

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases:**

H226 Flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.

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**Safety data sheet**  
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Printing date: 29.03.2019

Version number: 4

Revision: 29.03.2019

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**Trade name: Buffer PRECIPITATION (K00133)**

---

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**Training hints:**

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

**Department issuing SDS:**

ADEEGO GmbH  
Wildsteig 4A  
D-42113 Wuppertal  
Tel. +49 (0) 202 2575700  
Fax. +49 (0) 202 2575701  
Email: mail@adeego.de  
www.adeego.de

**Contact:** Dr. Axel Deeg

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 3: Flammable liquids – Category 3  
Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

---

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 01.04.2019

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

#### 1.1 Product identifier

**Trade name:** Buffer WASH C (K00137)

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

No further relevant information available.

**Application of the substance / the preparation:** Laboratory chemicals

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

##### Manufacturer/Supplier:

biotechrabbit GmbH

Volmerstr. 9

12489 Berlin

Germany

Office: +49 (0) 30 555 78 21 0

Fax: +49 (0) 30 555 78 21 99

Email: [sds@biotechrabbit.com](mailto:sds@biotechrabbit.com)

[www.biotechrabbit.com](http://www.biotechrabbit.com)

**Further information obtainable from:** biotechrabbit GmbH

#### 1.4 Emergency telephone number:

Giftinformationszentrum-Nord / GIZ-Nord Poisons Centre

Telefon / Phone +49 (0) 551-19240

24h / 7d

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture:

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

The product is not classified, according to the CLP regulation.

#### 2.2 Label elements:

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

**Hazard pictograms:** Void

**Signal word:** Void

**Hazard statements:** Void

#### 2.3 Other hazards:

##### Results of PBT and vPvB assessment:

**PBT:** Not applicable.

**vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

#### 3.2 Chemical characterisation: Mixtures

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

**Dangerous components:** Void

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

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

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**Trade name: Buffer WASH C (K00137)**

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(Contd. of page 1)

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures:

##### General information:

Take affected persons out into the fresh air.  
Do not leave affected persons unattended.

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

##### After skin contact:

Immediately wash with water and soap and rinse thoroughly.  
Seek medical treatment.

##### After eye contact:

Rinse opened eye for several minutes under running water.  
Call a doctor immediately.

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

#### 4.2 Most important symptoms and effects, both acute and delayed:

No further relevant information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

---

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media:

##### Suitable extinguishing agents:

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

**For safety reasons unsuitable extinguishing agents:** Water with full jet

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

Formation of toxic gases is possible during heating or in case of fire.

#### 5.3 Advice for firefighters:

##### Protective equipment:

Mouth respiratory protective device.  
Do not inhale explosion gases or combustion gases.

---

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.  
Wear protective clothing.

**6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.

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

Ensure adequate ventilation.  
Absorb liquid components with liquid-binding material.

#### 6.4 Reference to other sections:

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

---

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.  
Store in cool, dry place in tightly closed receptacles.

**Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.

(Contd. on page 3)

## Safety data sheet

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

Printing date 01.04.2019

Version number 3

Revision: 01.04.2019

**Trade name: Buffer WASH C (K00137)**

(Contd. of page 2)

**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:**

Store away from oxidising agents.

Store away from foodstuffs.

**Further information about storage conditions:** Keep container tightly sealed.**7.3 Specific end use(s):** No further relevant information available.**SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:**

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

**8.2 Exposure controls:****Personal protective equipment:****General protective and hygienic measures:**

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

Immediately remove all soiled and contaminated clothing.

Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Respiratory protection:** Not necessary if room is well-ventilated.**Protection of hands:** Protective gloves**Material of gloves:**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.35$  mm

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:** Tightly sealed goggles**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties:****General Information:****Appearance:**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Mild
<b>Odour threshold:</b>	Not determined.

**pH-value:** 7 - 8**Change in condition:****Melting point/freezing point:** Undetermined.**Initial boiling point and boiling range:** Undetermined.**Flash point:** Not applicable.**Flammability (solid, gas):** Not applicable.

(Contd. on page 4)

## Safety data sheet

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

Printing date 01.04.2019

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Trade name: Buffer WASH C (K00137)

(Contd. of page 3)

<b>Decomposition temperature:</b>	Not determined.
<b>Auto-ignition temperature:</b>	Product is not selfigniting.
<b>Explosive properties:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapour pressure:</b>	Not applicable.
<b>Density:</b>	Not determined.
<b>Relative density:</b>	Not determined.
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	Soluble.
<b>Partition coefficient: n-octanol/water:</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
<b>9.2 Other information:</b>	No further relevant information available.

#### SECTION 10: Stability and reactivity

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

**10.2 Chemical stability:**

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions:** No dangerous reactions known.

**10.4 Conditions to avoid:** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

#### SECTION 11: Toxicological information

**11.1 Information on toxicological effects:**

**Acute toxicity** Based on available data, the classification criteria are not met.

**Primary irritant effect:**

**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.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

**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.

#### SECTION 12: Ecological information

**12.1 Toxicity:**

**Aquatic toxicity:** No further relevant information available.

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## Safety data sheet

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

Printing date 01.04.2019

Version number 3

Revision: 01.04.2019

**Trade name: Buffer WASH C (K00137)**

(Contd. of page 4)

**12.2 Persistence and degradability:** No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

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.

**12.5 Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects:** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods:****European waste catalogue:**

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

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number:**

ADR, ADN, IMDG, IATA Void

**14.2 UN proper shipping name:**

ADR, ADN, IMDG, IATA Void

**14.3 Transport hazard class(es):**

ADR, ADN, IMDG, IATA Void

Class: Void

**14.4 Packing group:**

ADR, IMDG, IATA Void

**14.5 Environmental hazards:****Marine pollutant:** No**14.6 Special precautions for user:** Not applicable.**14.7 Transport in bulk according to Annex II of****Marpol and the IBC Code** Not applicable.**UN "Model Regulation":** Void**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

Directive 2012/18/EU

**Named dangerous substances - ANNEX I** None of the ingredients is listed.**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

(Contd. on page 6)

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

Printing date 01.04.2019

Version number 3

Revision: 01.04.2019

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**Trade name: Buffer WASH C (K00137)**

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(Contd. of page 5)

**Training hints:**

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

**Department issuing SDS:**

biotechrabbit GmbH

Volmerstr. 9

D-12489 Berlin

Tel. +49 (0) 30 555 78 21 0

Fax. +49 (0) 30 555 78 21 99

Email: [sds@biotechrabbit.com](mailto:sds@biotechrabbit.com)

[www.biotechrabbit.com](http://www.biotechrabbit.com)

**Contact:** Dr. Bernd Haase

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

---



## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 01.04.2019

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

#### 1.1 Product identifier

**Trade name:** Buffer ELUTION (K00120)

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

No further relevant information available.

**Application of the substance / the preparation:** Laboratory chemicals

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

##### Manufacturer/Supplier:

biotechrabbit GmbH

Volmerstr. 9

12489 Berlin

Germany

Office: +49 (0) 30 555 78 21 0

Fax: +49 (0) 30 555 78 21 99

Email: [sds@biotechrabbit.com](mailto:sds@biotechrabbit.com)

[www.biotechrabbit.com](http://www.biotechrabbit.com)

**Further information obtainable from:** biotechrabbit GmbH

#### 1.4 Emergency telephone number:

Giftinformationszentrum-Nord / GIZ-Nord Poisons Centre

Telefon / Phone +49 (0) 551-19240

24h / 7d

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture:

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

The product is not classified, according to the CLP regulation.

#### 2.2 Label elements:

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

**Hazard pictograms:** Void

**Signal word:** Void

**Hazard statements:** Void

#### 2.3 Other hazards:

##### Results of PBT and vPvB assessment:

**PBT:** Not applicable.

**vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

#### 3.2 Chemical characterisation: Mixtures

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

**Dangerous components:** Void

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

(Contd. on page 2)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.04.2019

Version number 3

Revision: 01.04.2019

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**Trade name: Buffer ELUTION (K00120)**

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(Contd. of page 1)

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures:

##### General information:

Take affected persons out into the fresh air.  
Do not leave affected persons unattended.

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

##### After skin contact:

Immediately wash with water and soap and rinse thoroughly.  
Seek medical treatment.

##### After eye contact:

Rinse opened eye for several minutes under running water.  
Call a doctor immediately.

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

#### 4.2 Most important symptoms and effects, both acute and delayed:

No further relevant information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

---

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media:

##### Suitable extinguishing agents:

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

**For safety reasons unsuitable extinguishing agents:** Water with full jet

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

Formation of toxic gases is possible during heating or in case of fire.

#### 5.3 Advice for firefighters:

##### Protective equipment:

Mouth respiratory protective device.  
Do not inhale explosion gases or combustion gases.

---

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.  
Wear protective clothing.

**6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.

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

Ensure adequate ventilation.  
Absorb liquid components with liquid-binding material.

#### 6.4 Reference to other sections:

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

---

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.  
Store in cool, dry place in tightly closed receptacles.

**Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.

(Contd. on page 3)

## Safety data sheet

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

Printing date 01.04.2019

Version number 3

Revision: 01.04.2019

Trade name: Buffer ELUTION (K00120)

(Contd. of page 2)

**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:**

Store away from oxidising agents.

Store away from foodstuffs.

**Further information about storage conditions:** Keep container tightly sealed.**7.3 Specific end use(s):** No further relevant information available.**SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:**

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

**8.2 Exposure controls:****Personal protective equipment:****General protective and hygienic measures:**

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

Immediately remove all soiled and contaminated clothing.

Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Respiratory protection:** Not necessary if room is well-ventilated.**Protection of hands:** Protective gloves**Material of gloves:**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.35$  mm

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:** Tightly sealed goggles**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties:****General Information:****Appearance:**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Mild
<b>Odour threshold:</b>	Not determined.

**pH-value:** 7 - 8**Change in condition:****Melting point/freezing point:** Undetermined.**Initial boiling point and boiling range:** Undetermined.**Flash point:** Not applicable.**Flammability (solid, gas):** Not applicable.

(Contd. on page 4)

## Safety data sheet

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

Printing date 01.04.2019

Version number 3

Revision: 01.04.2019

Trade name: Buffer ELUTION (K00120)

(Contd. of page 3)

<b>Decomposition temperature:</b>	Not determined.
<b>Auto-ignition temperature:</b>	Product is not selfigniting.
<b>Explosive properties:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapour pressure:</b>	Not applicable.
<b>Density:</b>	Not determined.
<b>Relative density:</b>	Not determined.
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	Soluble.
<b>Partition coefficient: n-octanol/water:</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
<b>9.2 Other information:</b>	No further relevant information available.

#### SECTION 10: Stability and reactivity

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

**10.2 Chemical stability:**

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions:** No dangerous reactions known.

**10.4 Conditions to avoid:** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

#### SECTION 11: Toxicological information

**11.1 Information on toxicological effects:**

**Acute toxicity** Based on available data, the classification criteria are not met.

**Primary irritant effect:**

**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.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

**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.

#### SECTION 12: Ecological information

**12.1 Toxicity:**

**Aquatic toxicity:** No further relevant information available.

(Contd. on page 5)

## Safety data sheet

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

Printing date 01.04.2019

Version number 3

Revision: 01.04.2019

**Trade name: Buffer ELUTION (K00120)**

(Contd. of page 4)

**12.2 Persistence and degradability:** No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

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.

**12.5 Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects:** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods:****European waste catalogue:**

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

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number:**

ADR, ADN, IMDG, IATA Void

**14.2 UN proper shipping name:**

ADR, ADN, IMDG, IATA Void

**14.3 Transport hazard class(es):**

ADR, ADN, IMDG, IATA

Class: Void

**14.4 Packing group:**

ADR, IMDG, IATA Void

**14.5 Environmental hazards:****Marine pollutant:** No**14.6 Special precautions for user:** Not applicable.**14.7 Transport in bulk according to Annex II of****Marpol and the IBC Code** Not applicable.**UN "Model Regulation":** Void**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

Directive 2012/18/EU

**Named dangerous substances - ANNEX I** None of the ingredients is listed.**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

(Contd. on page 6)

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

Printing date 01.04.2019

Version number 3

Revision: 01.04.2019

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**Trade name: Buffer ELUTION (K00120)**

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(Contd. of page 5)

**Training hints:**

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

**Department issuing SDS:**

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**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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