

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Pufferreagenzlösung**

Revision: 17.07.2024

Product code: 18620

Page 1 of 12

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Pufferreagenzlösung

UFI: 5MJN-E1RR-D00R-RKVG

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

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

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

|                         |                                  |
|-------------------------|----------------------------------|
| Company name:           | AnalytiChem GmbH                 |
|                         | ACD                              |
| Street:                 | Stempelstraße 6                  |
| Place:                  | D-47167 Duisburg                 |
| Telephone:              | 0203/5194-0                      |
| E-mail:                 | info@analytichem.de              |
| Contact person:         | Abteilung Produktsicherheit      |
| E-mail:                 | produktsicherheit@analytichem.de |
| Internet:               | www.analytichem.de               |
| Responsible Department: | Abteilung Produktsicherheit      |

Telefax: 0203/5194-290

Telephone: 0203/5194-107/117

**1.4. Emergency telephone number:**

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTRAC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**Further Information**

This product is a mixture. REACH Registration Number see section 3.

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Met. Corr. 1; H290

Skin Corr. 1B; H314

Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Hazard components for labelling**

sodium hydroxide

**Signal word:** Danger**Pictograms:**

## Pufferreagenzlösung

Revision: 17.07.2024

Product code: 18620

Page 2 of 12

**Hazard statements**

H290 May be corrosive to metals.  
 H314 Causes severe skin burns and eye damage.

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 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.

**Special labelling of certain mixtures**

EUH208 Contains hydroxylammonium chloride. May produce an allergic reaction.

**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Mixtures in aqueous solution

**Relevant ingredients**

| CAS No    | Chemical name  |              |                  | Quantity  |
|-----------|--|--------------|------------------|-----------|
|           | EC No  | Index No     | REACH No         |           |
|           | Classification (Regulation (EC) No 1272/2008)  |              |                  |           |
| 1310-73-2 | sodium hydroxide   |              |                  | 2 - < 5 % |
|           | 215-185-5  | 011-002-00-6 | 01-2119457892-27 |           |
|           | Met. Corr. 1, Skin Corr. 1A; H290 H314   |              |                  |           |
| 5949-29-1 | Citric acid 1-hydrate  |              |                  | 1 - < 5 % |
|           | 201-069-1  |              | 01-2119457026-42 |           |
|           | Eye Irrit. 2, STOT SE 3; H319 H335   |              |                  |           |
| 5470-11-1 | hydroxylammonium chloride  |              |                  | < 1 %     |
|           | 226-798-2  | 612-123-00-2 | 01-2120766309-45 |           |
|           | Met. Corr. 1, Carc. 2, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT RE 2, Aquatic Acute 1; H290 H351 H312 H302 H315 H319 H317 H373 H400 |              |                  |           |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No    | EC No   | Chemical name             | Quantity  |
|-----------|---|---------------------------|-----------|
|           | Specific Conc. Limits, M-factors and ATE  |                           |           |
| 1310-73-2 | 215-185-5   | sodium hydroxide          | 2 - < 5 % |
|           | Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2 |                           |           |
| 5949-29-1 | 201-069-1   | Citric acid 1-hydrate     | 1 - < 5 % |
|           | Eye Irrit. 2; H319: >= 0,5 - < 2  |                           |           |
| 5470-11-1 | 226-798-2   | hydroxylammonium chloride | < 1 %     |
|           | dermal: ATE = 1100 mg/kg; oral: ATE = 500 mg/kg   |                           |           |

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006

**Pufferreagenzlösung**

Revision: 17.07.2024

Product code: 18620

Page 3 of 12

(REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

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

First aider: Pay attention to self-protection!

**After inhalation**

Provide fresh air.

Call a physician immediately.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

Skin corrosion/irritation

Dyspnoea

Cough

Circulatory collapse

Risk of serious damage to eyes.

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

No data available

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

no restriction

**5.2. Special hazards arising from the substance or mixture**

Non-combustible liquids

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

Avoid contact with skin, eyes and clothes.

**Additional information**

Suppress gases/vapours/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Corrosive to metals.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Pufferreagenzlösung

Revision: 17.07.2024

Product code: 18620

Page 4 of 12

#### For non-emergency personnel

- Provide adequate ventilation.
- Use personal protection equipment.
- Avoid contact with skin, eyes and clothes.
- Remove persons to safety.
- Emergency procedures
- Consult an expert
- Do not breathe dust/fume/gas/mist/vapours/spray.

#### For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

##### For containment

- Cover drains.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Collect in closed and suitable containers for disposal.
- Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

##### Other information

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

#### 6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

## SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

- Do not breathe vapour/aerosol.
- Read label before use.

##### Advice on protection against fire and explosion

No special fire protection measures are necessary.

##### Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

##### Further information on handling

- Take off immediately all contaminated clothing and wash it before reuse.
- If handled uncovered, arrangements with local exhaust ventilation have to be used.
- Draw up and observe skin protection programme. Wash hands before breaks and after work.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Provide adequate ventilation as well as local exhaustion at critical locations.

Unsuitable container/equipment material:

Metal

Aluminium

## Pufferreagenzlösung

Revision: 17.07.2024

Product code: 18620

Page 5 of 12

Tin

Zinc

**Hints on joint storage**

national regulations

**Further information on storage conditions**

Keep container tightly closed.

storage temperature: +2°C - +8°C

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational exposure limits**

| CAS No    | Substance        | ppm | mg/m <sup>3</sup> | fib/cm <sup>3</sup> | Category      | Origin |
|-----------|------------------|-----|-------------------|---------------------|---------------|--------|
| 1310-73-2 | Sodium hydroxide | -   | 2                 |                     | STEL (15 min) |        |

**DNEL/DMEL values**

| CAS No                   | Substance        | Exposure route | Effect | Value               |
|--------------------------|------------------|----------------|--------|---------------------|
| 1310-73-2                | sodium hydroxide |                |        |                     |
| Worker DNEL, long-term   |                  | inhalation     | local  | 1 mg/m <sup>3</sup> |
| Consumer DNEL, long-term |                  | inhalation     | local  | 1 mg/m <sup>3</sup> |

**PNEC values**

| CAS No   | Substance             | Value      |
|--|-----------------------|------------|
| Environmental compartment                        |                       |            |
| 5949-29-1  | Citric acid 1-hydrate |            |
| Freshwater                                       |                       | 0,44 mg/l  |
| Marine water                                     |                       | 0,044 mg/l |
| Freshwater sediment                              |                       | 34,6 mg/kg |
| Marine sediment                                  |                       | 3,46 mg/kg |
| Micro-organisms in sewage treatment plants (STP) |                       | 1000 mg/l  |
| Soil   |                       | 33,1 mg/kg |

**8.2. Exposure controls****Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Do not breathe vapour/aerosol.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Pufferreagenzlösung

Revision: 17.07.2024

Product code: 18620

Page 6 of 12

recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

#### By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with permanent contact: > 480 min

#### By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

#### Skin protection

Wear suitable protective clothing.

#### Respiratory protection

Respiratory protection necessary at: aerosol or mist formation  
Filtering device with filter or ventilator filtering device of type: P2  
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### Environmental exposure controls

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

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

|   |                   |
|---|-------------------|
| Physical state:   | Liquid            |
| Colour:   | colourless        |
| Odour:  | odourless         |
| Odour threshold:  | No data available |
| Melting point/freezing point:                             | No data available |
| Boiling point or initial boiling point and boiling range: | No data available |
| Flammability:   | not applicable    |
| Lower explosion limits:                                   | not applicable    |
| Upper explosion limits:                                   | not applicable    |
| Flash point:  | X                 |
| Auto-ignition temperature:                                | No data available |
| Decomposition temperature:                                | No data available |
| pH-Value:   | 12,4              |
| Viscosity / kinematic:                                    | No data available |
| Water solubility:   | very soluble      |

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Pufferreagenzlösung

Revision: 17.07.2024

Product code: 18620

Page 7 of 12

|  |                           |
|--|---------------------------|
| Solubility in other solvents           |                           |
| not determined                         |                           |
| Partition coefficient n-octanol/water: | No data available         |
| Vapour pressure:                       | No data available         |
| Vapour pressure:                       | No data available         |
| Density (at 20 °C):                    | 1,07758 g/cm <sup>3</sup> |
| Bulk density:                          | No data available         |
| Relative vapour density:               | No data available         |

#### **9.2. Other information**

##### **Information with regard to physical hazard classes**

|                           |                   |
|---------------------------|-------------------|
| Explosive properties      |                   |
| not applicable            |                   |
| Sustained combustibility: | No data available |
| Self-ignition temperature |                   |
| Solid:                    | not applicable    |
| Gas:                      | not applicable    |
| Oxidizing properties      |                   |
| Not oxidising.            |                   |

##### **Other safety characteristics**

|                          |                   |
|--------------------------|-------------------|
| Evaporation rate:        | No data available |
| Solvent separation test: | No data available |
| Solvent content:         | 0                 |
| Solid content:           | 0                 |
| Sublimation point:       | No data available |
| Softening point:         | No data available |
| Pour point:              | No data available |
| Viscosity / dynamic:     | No data available |
| Flow time:               | No data available |

#### **Further Information**

Corrosive to metals.

## SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

Corrosive to metals.

#### **10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.  
storage temperature: +2°C - +8°C

#### **10.3. Possibility of hazardous reactions**

Metal, Light metal (Formation of: Hydrogen)  
Phenols  
Combustible substance  
Alkaline earth metal (Metal powder)  
Acids, Nitriles

#### **10.4. Conditions to avoid**

Radiant heat.

#### **10.5. Incompatible materials**

Aluminium, Brass, Glass  
Tin, Zinc, Aluminium  
plastic

## Pufferreagenzlösung

Revision: 17.07.2024

Product code: 18620

Page 8 of 12

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**Further information**

No data available

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

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

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

Mucous membrane irritation in the mouth, throat, esophagus and gastrointestinal tract.

Inhalation effect: Damage to the respiratory tract.

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

| CAS No    | Chemical name             |               |         |        |                     |                    |
|-----------|---------------------------|---------------|---------|--------|---------------------|--------------------|
|           | Exposure route            | Dose          | Species | Source | Method              |                    |
| 5949-29-1 | Citric acid 1-hydrate     |               |         |        |                     |                    |
|           | oral                      | LD50<br>mg/kg | 5400    | Mouse  | Study report (1981) | OECD Guideline 401 |
|           | dermal                    | LD50<br>mg/kg | > 2000  | Rat    | Study report (2006) | OECD Guideline 402 |
| 5470-11-1 | hydroxylammonium chloride |               |         |        |                     |                    |
|           | oral                      | ATE<br>mg/kg  | 500     |        |                     |                    |
|           | dermal                    | ATE<br>mg/kg  | 1100    |        |                     |                    |

**Irritation and corrosivity**

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

**Sensitising effects**

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

Contains hydroxylammonium chloride. May produce an allergic reaction.

**Carcinogenic/mutagenic/toxic effects 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.

**Specific effects in experiment on an animal**

There are no data available on the mixture itself.

## Pufferreagenzlösung

Revision: 17.07.2024

Product code: 18620

Page 9 of 12

**Additional information on tests**

There are no data available on the mixture itself.

**Practical experience**

There are no data available on the mixture itself.

**11.2. Information on other hazards****Other information**

There are no data available on the mixture itself.

**Further information**

Skin corrosion/irritation

Dyspnoea

Cough

Circulatory collapse

Risk of serious damage to eyes.

**SECTION 12: Ecological information****12.1. Toxicity**

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

| CAS No    | Chemical name            |                 |           |   |  |  |
|-----------|--------------------------|-----------------|-----------|---|--|--|
|           | Aquatic toxicity         | Dose            | [h]   [d] | Species                                       | Source                                     | Method                                   |
| 1310-73-2 | sodium hydroxide         |                 |           |   |  |  |
|           | Acute crustacea toxicity | EC50 40,4 mg/l  | 48 h      | Ceriodaphnia sp.                              | Ecotoxicology and Environmental Safety,4   | other: acute 48-h immobilization test ac |
| 5949-29-1 | Citric acid 1-hydrate    |                 |           |   |  |  |
|           | Acute fish toxicity      | LC50 > 100 mg/l | 96 h      | Pimephales promelas                           | Photogr. Sci. Eng. 16(5):370-377 (1972)    |  |
|           | Acute crustacea toxicity | EC50 > 50 mg/l  | 48 h      | other aquatic crustacea: Dreissena polymorpha | Environ. Toxicol. Chem. 16(9): 1930-1934 ( | other: ASTM                              |
|           | Algae toxicity           | NOEC 425 mg/l   | 8 d       | Scenedesmus quadricauda                       | Water Research 14: 231-241 (1980)          | other: Bringmann and Kuhn                |

**12.2. Persistence and degradability**

The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3. Bioaccumulative potential**

not applicable

**Partition coefficient n-octanol/water**

| CAS No    | Chemical name         | Log Pow |
|-----------|-----------------------|---------|
| 5949-29-1 | Citric acid 1-hydrate | -1,55   |

**BCF**

| CAS No    | Chemical name         | BCF | Species | Source     |
|-----------|-----------------------|-----|---------|------------|
| 5949-29-1 | Citric acid 1-hydrate | 3,2 |         | In: (2009) |

**12.4. Mobility in soil**

There are no data available on the mixture itself.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Pufferreagenzlösung

Revision: 17.07.2024

Product code: 18620

Page 10 of 12

#### **12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### **12.7. Other adverse effects**

Discharge into the environment must be avoided.

#### **Further information**

Do not allow to enter into surface water or drains.

Harmful effect due to pH shift.

## SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Do not empty into drains.

Handle contaminated packages in the same way as the substance itself.

##### **Contaminated packaging**

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

## SECTION 14: Transport information

#### **Land transport (ADR/RID)**

|   |  |
|---|--|
| <b><u>14.1. UN number or ID number:</u></b>     | UN 1719  |
| <b><u>14.2. UN proper shipping name:</u></b>    | CAUSTIC ALKALI LIQUID, N.O.S. (sodium hydroxide) |
| <b><u>14.3. Transport hazard class(es):</u></b> | 8  |
| <b><u>14.4. Packing group:</u></b>              | II   |
| Hazard label:                                   | 8  |
| Classification code:                            | C5   |
| Special Provisions:                             | 274  |
| Limited quantity:                               | 1 L  |
| Excepted quantity:                              | E2   |
| Transport category:                             | 2  |
| Hazard No:                                      | 80   |
| Tunnel restriction code:                        | E  |

#### **Inland waterways transport (ADN)**

|   |  |
|---|--|
| <b><u>14.1. UN number or ID number:</u></b>     | UN 1719  |
| <b><u>14.2. UN proper shipping name:</u></b>    | CAUSTIC ALKALI LIQUID, N.O.S. (sodium hydroxide) |
| <b><u>14.3. Transport hazard class(es):</u></b> | 8  |
| <b><u>14.4. Packing group:</u></b>              | II   |
| Hazard label:                                   | 8  |
| Classification code:                            | C5   |
| Special Provisions:                             | 274  |
| Limited quantity:                               | 1 L  |
| Excepted quantity:                              | E2   |

#### **Marine transport (IMDG)**

|   |  |
|---|--|
| <b><u>14.1. UN number or ID number:</u></b>     | UN 1719  |
| <b><u>14.2. UN proper shipping name:</u></b>    | CAUSTIC ALKALI LIQUID, N.O.S. (sodium hydroxide) |
| <b><u>14.3. Transport hazard class(es):</u></b> | 8  |
| <b><u>14.4. Packing group:</u></b>              | II   |
| Hazard label:                                   | 8  |
| Special Provisions:                             | 274  |

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Pufferreagenzlösung

Revision: 17.07.2024

Product code: 18620

Page 11 of 12

Limited quantity: 1 L  
Excepted quantity: E2  
EmS: F-A, S-B  
Segregation group: alkalis

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:** UN 1719  
**14.2. UN proper shipping name:** CAUSTIC ALKALI LIQUID, N.O.S.(sodium hydroxide)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8  
Special Provisions: A3 A803  
Limited quantity Passenger: 0.5 L  
Passenger LQ: Y840  
Excepted quantity: E2  
IATA-packing instructions - Passenger: 851  
IATA-max. quantity - Passenger: 1 L  
IATA-packing instructions - Cargo: 855  
IATA-max. quantity - Cargo: 30 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

Warning: strongly corrosive.

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

not applicable

## SECTION 15: Regulatory information

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

#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

## SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1,9,12.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Pufferreagenzlösung

Revision: 17.07.2024

Product code: 18620

Page 12 of 12

#### Abbreviations and acronyms

Met. Corr. 1: Corrosive to metals, hazard category 1  
Acute Tox. 4: Acute toxicity, hazard category 4  
Skin Corr. 1A: Skin corrosion, sub-category 1A  
Skin Irrit. 2: Skin irritation, hazard category 2  
Eye Dam. 1: Serious eye damage, hazard category 1  
Eye Irrit. 2: Eye irritation, hazard category 2  
Skin Sens. 1: Skin sensitisation, hazard category 1  
Carc. 2: Carcinogenicity, hazard category 2  
STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3  
STOT RE 2: Specific target organ toxicity - repeated exposure, hazard category 2  
Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1  
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 Harmonized 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  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%

#### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

| Classification      | Classification procedure |
|---------------------|--------------------------|
| Met. Corr. 1; H290  | On basis of test data    |
| Skin Corr. 1B; H314 | Calculation method       |
| Eye Dam. 1; H318    | Calculation method       |

#### Relevant H and EUH statements (number and full text)

|        |   |
|--------|---|
| H290   | May be corrosive to metals.   |
| H302   | Harmful if swallowed.   |
| H312   | Harmful in contact with skin.   |
| H314   | Causes severe skin burns and eye damage.                              |
| H315   | Causes skin irritation.   |
| H317   | May cause an allergic skin reaction.                                  |
| H318   | Causes serious eye damage.  |
| H319   | Causes serious eye irritation.  |
| H335   | May cause respiratory irritation.                                     |
| H351   | Suspected of causing cancer.  |
| H373   | May cause damage to organs through prolonged or repeated exposure.    |
| H400   | Very toxic to aquatic life.   |
| EUH208 | Contains hydroxylammonium chloride. May produce an allergic reaction. |

#### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. Provide appropriate information, instructions and training to users

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*