

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2



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

1.1. Product identifier

Product form : Mixture
Product name : BUFFER SOLUTION pH 1.00 ± 0.02 AT 20°C
Type of product : Solution

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ISOLAB Laborgeräte GmbH
Am Dillhof 2 - 63863 Eschau / GERMANY
Tel: + 49 93 74 / 978 55-0
Fax: +49 93 74 / 978 55-29
prodsafe@isolab.de

1.4. Emergency telephone number

| Country | Organisation/Company | Address | Emergency number | Comment |
|---------|--|-----------------------------------|------------------|---------|
| Germany | Giftnotruf der Charité CBF, Haus VIII (Wirtschaftgebäude), UG | Hindenburgdamm 30 12203 Berlin | +49 30 19240 | |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin Corr. 1A H314

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

Causes severe skin burns and eye damage.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP) :

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water .
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2



3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|-------------------------------------|---|-----------|---|
| hydrochloric acid ... % (Note B) | (EC-No.) 231-595-7 (EC Index-No.) 017-002-01-X | 0.1 - 2.5 | Skin Corr. 1B, H314 STOT SE 3, H335 |
| Potassium chloride | (CAS-No.) 7447-40-7 (EC-No.) 231-211-8 | 0.1 - 2.5 | Not classified |

Specific concentration limits:

| Name | Product identifier | Specific concentration limits |
|-------------------------|---|---|
| hydrochloric acid ... % | (EC-No.) 231-595-7 (EC Index-No.) 017-002-01-X | (C >= 10) STOT SE 3, H335 (10 =<C < 25) Eye Irrit. 2, H319 (10 =<C < 25) Skin Irrit. 2, H315 (C >= 25) Skin Corr. 1B, H314 |

Note B : Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : Call a physician immediately. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. |
| First-aid measures after ingestion | : Rinse mouth. Do not induce vomiting. Call a physician immediately. |

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

| | |
|-------------------------------------|---------------------------|
| Symptoms/effects after skin contact | : Burns. |
| Symptoms/effects after eye contact | : Serious damage to eyes. |
| Symptoms/effects after ingestion | : Burns. |

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2



6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| hydrochloric acid ... % | | |
|-------------------------|--|--|
| EU | Local name | Hydrogen chloride |
| EU | IOELV TWA (mg/m ³) | 8 mg/m ³ |
| EU | IOELV TWA (ppm) | 5 ppm |
| EU | IOELV STEL (mg/m ³) | 15 mg/m ³ |
| EU | IOELV STEL (ppm) | 10 ppm |
| Austria | Local name | Chlorwasserstoff |
| Austria | MAK (mg/m ³) | 8 mg/m ³ |
| Austria | MAK (ppm) | 5 ppm |
| Austria | MAK Short time value (mg/m ³) | 15 mg/m ³ |
| Austria | MAK Short time value (ppm) | 10 ppm |
| Belgium | Local name | Hydrogène (chlorure d') # Waterstofchloride |
| Belgium | Limit value (mg/m ³) | 8 mg/m ³ |
| Belgium | Limit value (ppm) | 5 ppm |
| Belgium | Short time value (mg/m ³) | 15 mg/m ³ |
| Belgium | Short time value (ppm) | 10 ppm |
| Bulgaria | Local name | Хлороводород |
| Bulgaria | OEL TWA (mg/m ³) | 8 mg/m ³ |
| Bulgaria | OEL TWA (ppm) | 5 ppm |
| Bulgaria | OEL STEL (mg/m ³) | 15 mg/m ³ |
| Bulgaria | OEL STEL (ppm) | 10 ppm |
| Bulgaria | Notes | • (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност) |
| Croatia | Local name | Vodikov klorid |
| Croatia | GVI (granična vrijednost izloženosti) (mg/m ³) | 8 mg/m ³ |
| Croatia | GVI (granična vrijednost izloženosti) (ppm) | 5 ppm |
| Croatia | KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³) | 15 mg/m ³ |
| Croatia | KGVI (kratkotrajna granična vrijednost izloženosti) (ppm) | 10 ppm |
| Croatia | Naznake (HR) | EU* (naznaka da se radi o tvarima za koje su utvrđene indikativne granične vrijednosti izloženosti prema Direktivi 2000/39/ EC (prva lista)); T (otrovno); C (nagrizajuće) |
| Czech Republic | Local name | Chlorovodík |
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 8 mg/m ³ |
| Czech Republic | Expoziční limity (PEL) (ppm) | 5.43 ppm |

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2



| hydrochloric acid ... % | | |
|-------------------------|---|--|
| Czech Republic | Expoziční limity (NPK-P) (mg/m ³) | 15 mg/m ³ |
| Czech Republic | Expoziční limity (NPK-P) (ppm) | 10.19 ppm |
| Denmark | Local name | Hydrogenchlorid (Chlorbrinte) |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 8 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (ppm) | 5 ppm |
| Denmark | Anmærkninger (DK) | E (betyder, at stoffet har en EF-grænseværdi); L (markerer, at grænseværdien er en loftværdi, som ikke på noget tidspunkt må overskrides) |
| Estonia | Local name | Vesinikloriid |
| Estonia | OEL TWA (mg/m ³) | 8 mg/m ³ |
| Estonia | OEL TWA (ppm) | 5 ppm |
| Estonia | OEL STEL (mg/m ³) | 15 mg/m ³ |
| Estonia | OEL STEL (ppm) | 10 ppm |
| Finland | Local name | Kloorivety, vedetön |
| Finland | HTP-arvo (15 min) | 7.6 mg/m ³ |
| Finland | HTP-arvo (15 min) (ppm) | 5 ppm |
| France | Local name | Chlorure d'hydrogène (Acide chlorhydrique) |
| France | VLE (mg/m ³) | 7.6 mg/m ³ |
| France | VLE (ppm) | 5 ppm |
| France | Note (FR) | Valeurs réglementaires contraignantes |
| Germany | Local name | Hydrogenchlorid |
| Germany | TRGS 900 Occupational exposure limit value (mg/m ³) | 3 mg/m ³ |
| Germany | TRGS 900 Occupational exposure limit value (ppm) | 2 ppm |
| Germany | Remark (TRGS 900) | DFG,EU,Y |
| Gibraltar | Eight hours mg/m ³ | 8 mg/m ³ |
| Gibraltar | Eight hours ppm | 5 ppm |
| Gibraltar | Short-term mg/m ³ | 15 mg/m ³ |
| Gibraltar | Short-term ppm | 10 ppm |
| Gibraltar | Name of agent | Hydrogen chloride |
| Greece | OEL TWA (mg/m ³) | 7 mg/m ³ |
| Greece | OEL TWA (ppm) | 5 ppm |
| Greece | OEL STEL (mg/m ³) | 7 mg/m ³ |
| Greece | OEL STEL (ppm) | 5 ppm |
| Hungary | Local name | SÓSAV |
| Hungary | AK-érték | 8 mg/m ³ |
| Hungary | CK-érték | 16 mg/m ³ |
| Hungary | Megjegyzések (HU) | i, m; EU1 |
| Ireland | Local name | Hydrogen chloride |
| Ireland | OEL (8 hours ref) (mg/m ³) | 8 mg/m ³ |
| Ireland | OEL (8 hours ref) (ppm) | 5 ppm |
| Ireland | OEL (15 min ref) (mg/m ³) | 15 mg/m ³ |
| Ireland | OEL (15 min ref) (ppm) | 10 ppm |
| Ireland | Notes (IE) | IOELV |
| Italy | Local name | Acido cloridrico |
| Italy | OEL TWA (mg/m ³) | 8 mg/m ³ |
| Italy | OEL TWA (ppm) | 5 ppm |
| Italy | OEL STEL (mg/m ³) | 15 mg/m ³ |
| Italy | OEL STEL (ppm) | 10 ppm |
| Latvia | Local name | Hlorūdeņradis |

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2



| hydrochloric acid ... % | | |
|-------------------------|--|---|
| Latvia | OEL TWA (mg/m ³) | 8 mg/m ³ |
| Latvia | OEL TWA (ppm) | 5 ppm |
| Latvia | OEL STEL (mg/m ³) | 15 mg/m ³ |
| Latvia | OEL STEL (ppm) | 10 ppm |
| Lithuania | Local name | Vandenilio chloridas |
| Lithuania | IPRV (mg/m ³) | 8 mg/m ³ |
| Lithuania | IPRV (ppm) | 5 ppm |
| Lithuania | TPRV (mg/m ³) | 15 mg/m ³ |
| Lithuania | TPRV (ppm) | 10 ppm |
| Luxembourg | Local name | Chlorure d'hydrogène |
| Luxembourg | OEL TWA (mg/m ³) | 8 mg/m ³ |
| Luxembourg | OEL TWA (ppm) | 5 ppm |
| Luxembourg | OEL STEL (mg/m ³) | 15 mg/m ³ |
| Luxembourg | OEL STEL (ppm) | 10 ppm |
| Malta | Local name | Hydrogenchloride |
| Malta | OEL TWA (mg/m ³) | 8 mg/m ³ |
| Malta | OEL TWA (ppm) | 5 ppm |
| Malta | OEL STEL (mg/m ³) | 15 mg/m ³ |
| Malta | OEL STEL (ppm) | 10 ppm |
| Netherlands | Local name | Zoutzuur |
| Netherlands | Grenswaarde TGG 8H (mg/m ³) | 8 mg/m ³ |
| Netherlands | Grenswaarde TGG 15MIN (mg/m ³) | 15 mg/m ³ |
| Poland | Local name | Chlorowodór |
| Poland | NDS (mg/m ³) | 5 mg/m ³ |
| Poland | NDSch (mg/m ³) | 10 mg/m ³ |
| Portugal | Local name | Ácido clorídrico |
| Portugal | OEL - Ceilings (ppm) | 2 ppm |
| Romania | Local name | Acid clorhidric |
| Romania | OEL TWA (mg/m ³) | 8 mg/m ³ |
| Romania | OEL TWA (ppm) | 5 ppm |
| Romania | OEL STEL (mg/m ³) | 15 mg/m ³ |
| Romania | OEL STEL (ppm) | 10 ppm |
| Slovakia | Local name | Chlorovodík |
| Slovakia | NPHV (priemerná) (mg/m ³) | 8 mg/m ³ |
| Slovakia | NPHV (priemerná) (ppm) | 5 ppm |
| Slovakia | OEL STEL (mg/m ³) | 15 mg/m ³ |
| Slovakia | OEL STEL (ppm) | 10 ppm |
| Slovenia | Local name | vodikov klorid, brezvodni (klorovodik, brezvodni) |
| Slovenia | OEL TWA (mg/m ³) | 8 mg/m ³ |
| Slovenia | OEL TWA (ppm) | 5 ppm |
| Slovenia | OEL STEL (mg/m ³) | 16 mg/m ³ |
| Slovenia | OEL STEL (ppm) | 10 ppm |
| Spain | Local name | Cloruro de hidrógeno |
| Spain | VLA-ED (mg/m ³) | 7.6 mg/m ³ |
| Spain | VLA-ED (ppm) | 5 ppm |
| Spain | VLA-EC (mg/m ³) | 15 mg/m ³ |
| Spain | VLA-EC (ppm) | 10 ppm |

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2



| hydrochloric acid ... % | | |
|-------------------------|---|---|
| Spain | Notes | VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C. Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país). |
| Sweden | Local name | Saltsyra |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 3 mg/m ³ 3 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (ppm) | 2 ppm 2 ppm |
| Sweden | kortidsvärde (KTV) (mg/m ³) | 6 mg/m ³ 6 mg/m ³ |
| Sweden | kortidsvärde (KTV) (ppm) | 4 ppm 4 ppm |
| United Kingdom | Local name | Hydrogen chloride |
| United Kingdom | WEL TWA (mg/m ³) | 2 mg/m ³ gas and aerosol mists |
| United Kingdom | WEL TWA (ppm) | 1 ppm gas and aerosol mists |
| United Kingdom | WEL STEL (mg/m ³) | 8 mg/m ³ gas and aerosol mists |
| United Kingdom | WEL STEL (ppm) | 5 ppm gas and aerosol mists |
| Iceland | Local name | Vetnisklórið (klórvetni) |
| Iceland | OEL (15 min ref) (mg/m ³) | 8 mg/m ³ |
| Iceland | OEL (15 min ref) (ppm) | 5 ppm |
| Russian Federation | Local name | Гидрохлорид |
| Russian Federation | OEL Ceiling (mg/m ³) | 5 mg/m ³ |
| Russian Federation | Remark (RU) | 2 класс опасности - высокоопасное; п (пары и/или газы); О (вещества с остронаправленным механизмом действия, требующие автоматического контроля за их содержанием в воздухе) |
| Norway | Local name | Hydrogenklorid (Saltsyre) |
| Norway | Grenseverdier (AN) (mg/m ³) | 7 mg/m ³ |
| Norway | Grenseverdier (AN) (ppm) | 5 ppm |
| Norway | Merknader (NO) | T (Takverdi er en øyeblikksverdi som angir maksimalkonsentrasjon av et kjemikalie i pustesonen som ikke skal overskrides); E (EU har en veiledende grenseverdi for stoffet) |
| Switzerland | Local name | Chlorwasserstoff |
| Switzerland | MAK (mg/m ³) | 3 mg/m ³ 3 mg/m ³ |
| Switzerland | MAK (ppm) | 2 ppm 2 ppm |
| Switzerland | KZGW (mg/m ³) | 6 mg/m ³ 6 mg/m ³ |
| Switzerland | KZGW (ppm) | 4 ppm 4 ppm |
| Switzerland | Remark (CH) | SSc - OAW ^{KT AN} - DFG, NIOSH, OSHA |
| Turkey | Local name | Hidrojen klorür |
| Turkey | OEL TWA (mg/m ³) | 8 mg/m ³ |
| Turkey | OEL TWA (ppm) | 5 ppm |
| Turkey | OEL STEL (mg/m ³) | 15 mg/m ³ |
| Turkey | OEL STEL (ppm) | 10 ppm |
| Australia | Local name | Hydrogen chloride |
| USA - ACGIH | Local name | Hydrogen chloride |

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2



| hydrochloric acid ... % | | |
|--------------------------------|---|---|
| USA - ACGIH | ACGIH Ceiling (ppm) | 2 ppm |
| USA - ACGIH | Remark (ACGIH) | URT irr |
| USA - OSHA | Local name | Hydrogen chloride |
| USA - OSHA | OSHA PEL (Ceiling) (mg/m ³) | 7 mg/m ³ |
| USA - OSHA | OSHA PEL (Ceiling) (ppm) | 5 ppm |
| Potassium chloride (7447-40-7) | | |
| Bulgaria | Local name | Калиев хлорид |
| Bulgaria | OEL TWA (mg/m ³) | 5 mg/m ³ |
| Latvia | Local name | Kālijahlorīds |
| Latvia | OEL TWA (mg/m ³) | 5 mg/m ³ |
| Lithuania | Local name | Kalio chloridas |
| Lithuania | IPRV (mg/m ³) | 5 mg/m ³ |
| Russian Federation | Local name | Калий хлорид |
| Russian Federation | OEL Ceiling (mg/m ³) | 5 mg/m ³ |
| Russian Federation | Remark (RU) | 3 класс опасности - опасное; а (аэрозоль) |

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

Protective goggles

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Colour | : Colourless. According to product specification. |
| Odour | : characteristic. |
| Odour threshold | : No data available |
| pH | : 0.98 - 1.02 at 20°C |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : 0 °C |
| Freezing point | : No data available |
| Boiling point | : 100 °C |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not self-igniting |
| Vapour pressure | : 23 hPa (@ 20 °C) |
| Relative vapour density at 20 °C | : No data available |

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2



| | |
|----------------------|-----------------------------------|
| Relative density | : No data available |
| Density | : 1.004 g/cm ³ (20 °C) |
| Solubility | : Miscible with water. |
| Log Pow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : Not explosive. |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|-----------------------------------|---|
| Acute toxicity | : Not classified |
| Skin corrosion/irritation | : Causes severe skin burns and eye damage. pH: 1 |
| Serious eye damage/irritation | : Serious eye damage, category 1, implicit pH: 1 |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

| hydrochloric acid ... % | |
|--------------------------------|--|
| LC50 fish 1 | 282 mg/l (LC50; 96 h; Gambusia affinis) |
| EC50 Daphnia 1 | < 56 mg/l (EC50; 72 h; Daphnia magna) |
| Potassium chloride (7447-40-7) | |
| LC50 fish 2 | 2010 mg/l (LC50; 96 h; Lepomis macrochirus) |
| EC50 Daphnia 2 | 660 mg/l (EC50; EPA 600/4-90/027; 48 h; Daphnia magna; Static system; Fresh water; Experimental value) |

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2



| | |
|---------------------------------------|---|
| Potassium chloride (7447-40-7) | |
| Threshold limit algae 2 | > 100 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Desmodesmus subspicatus; Static system; Fresh water; Experimental value) |

12.2. Persistence and degradability

| | |
|---------------------------------|--|
| hydrochloric acid ... % | |
| Persistence and degradability | Biodegradability: not applicable. No (test)data on mobility of the components available. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |

| | |
|---------------------------------------|---|
| Potassium chloride (7447-40-7) | |
| Persistence and degradability | Biodegradability: not applicable. No (test)data on mobility of the substance available. |
| ThOD | Not applicable (inorganic) |

12.3. Bioaccumulative potential

| | |
|--------------------------------|--|
| hydrochloric acid ... % | |
| Log Pow | 0.25 (QSAR) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

| | |
|---------------------------------------|--|
| Potassium chloride (7447-40-7) | |
| Log Pow | -0.46 (Estimated value) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

12.4. Mobility in soil

| | |
|--------------------------------|---|
| hydrochloric acid ... % | |
| Ecology - soil | May be harmful to plant growth, blooming and fruit formation. |

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

| ADR | IMDG | IATA | ADN | RID |
|--|---|---|---|---|
| 14.1. UN number | | | | |
| 3264 | 3264 | 3264 | 3264 | 3264 |
| 14.2. UN proper shipping name | | | | |
| CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. | Corrosive liquid, acidic, inorganic, n.o.s. | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. |
| Transport document description | | | | |
| UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, I, (E) | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, I | UN 3264 Corrosive liquid, acidic, inorganic, n.o.s., 8, I | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, I | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, I |
| 14.3. Transport hazard class(es) | | | | |
| 8 | 8 | 8 | 8 | 8 |
| | | | | |
| 14.4. Packing group | | | | |
| I | I | I | I | I |

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2

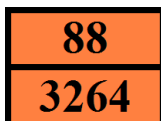


| ADR | IMDG | IATA | ADN | RID |
|--|---|------------------------------------|------------------------------------|------------------------------------|
| 14.5. Environmental hazards | | | | |
| Dangerous for the environment : No | Dangerous for the environment : No Marine pollutant : No | Dangerous for the environment : No | Dangerous for the environment : No | Dangerous for the environment : No |
| No supplementary information available | | | | |

14.6. Special precautions for user

- Overland transport

| | |
|---|-------------|
| Classification code (ADR) | : C1 |
| Special provisions (ADR) | : 274 |
| Limited quantities (ADR) | : 0 |
| Excepted quantities (ADR) | : E0 |
| Packing instructions (ADR) | : P001 |
| Mixed packing provisions (ADR) | : MP8, MP17 |
| Portable tank and bulk container instructions (ADR) | : T14 |
| Portable tank and bulk container special provisions (ADR) | : TP2, TP27 |
| Tank code (ADR) | : L10BH |
| Vehicle for tank carriage | : AT |
| Transport category (ADR) | : 1 |
| Special provisions for carriage - Operation (ADR) | : S20 |
| Hazard identification number (Kemler No.) | : 88 |
| Orange plates | : |



| | |
|-------------------------------|------|
| Tunnel restriction code (ADR) | : E |
| EAC code | : 2X |
| APP code | : B |

- Transport by sea

| | |
|------------------------------------|--|
| Special provisions (IMDG) | : 274 |
| Limited quantities (IMDG) | : 0 |
| Excepted quantities (IMDG) | : E0 |
| Packing instructions (IMDG) | : P001 |
| Tank instructions (IMDG) | : T14 |
| Tank special provisions (IMDG) | : TP2, TP27 |
| EmS-No. (Fire) | : F-A |
| EmS-No. (Spillage) | : S-B |
| Stowage category (IMDG) | : B |
| Stowage and handling (IMDG) | : SW2 |
| Properties and observations (IMDG) | : Causes burns to skin, eyes and mucous membranes. |
| MFAG-No | : 154 |

- Air transport

| | |
|--|-------------|
| PCA Excepted quantities (IATA) | : E0 |
| PCA Limited quantities (IATA) | : Forbidden |
| PCA limited quantity max net quantity (IATA) | : Forbidden |
| PCA packing instructions (IATA) | : 850 |
| PCA max net quantity (IATA) | : 0.5L |
| CAO packing instructions (IATA) | : 854 |
| CAO max net quantity (IATA) | : 2.5L |
| Special provisions (IATA) | : A3 |
| ERG code (IATA) | : 8L |

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2



- Inland waterway transport

| | |
|-----------------------------------|----------|
| Classification code (ADN) | : C1 |
| Special provisions (ADN) | : 274 |
| Limited quantities (ADN) | : 0 |
| Excepted quantities (ADN) | : E0 |
| Carriage permitted (ADN) | : T |
| Equipment required (ADN) | : PP, EP |
| Number of blue cones/lights (ADN) | : 0 |

- Rail transport

| | |
|---|--------------|
| Classification code (RID) | : C1 |
| Special provisions (RID) | : 274 |
| Limited quantities (RID) | : 0 |
| Excepted quantities (RID) | : E0 |
| Packing instructions (RID) | : P001 |
| Mixed packing provisions (RID) | : MP8, MP17 |
| Portable tank and bulk container instructions (RID) | : T14 |
| Portable tank and bulk container special provisions (RID) | : TP2, TP27 |
| Tank codes for RID tanks (RID) | : L10BH |
| Special provisions for RID tanks (RID) | : TU38, TE22 |
| Transport category (RID) | : 1 |
| Hazard identification number (RID) | : 88 |

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

BUFFER SOLUTION pH 1.00 ± 0.02

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc. No: SDS-908.B01/2



15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

| | |
|-------|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| EC50 | Median effective concentration |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| OECD | Organisation for Economic Co-operation and Development |
| PBT | Persistent Bioaccumulative Toxic |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| vPvB | Very Persistent and Very Bioaccumulative |

Data sources

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

Full text of H- and EUH-statements:

| | |
|---------------|--|
| Skin Corr. 1A | Skin corrosion/irritation, Category 1A |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1B |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H314 | Causes severe skin burns and eye damage |
| H335 | May cause respiratory irritation. |

SDS ISOLAB

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product