



Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

| | |
|-------------------------------|---|
| Trade name/designation | Buffer solution pH 4 |
| Product No. | PRD5298 |
| Substance name | Buffer solution pH4 |
| CAS No. | |
| INDEX no. | |
| REACH registration No. | Not yet communicated down the supply chain. |
| other means of identification | |

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

Relevant identified uses for laboratory use and chemical production.

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

: Better Equipped,
Wrenbury Business Park,
Wrenbury Road,
Wrenbury,
Nantwich, Cheshire,
CW5 8EB, UK

Telephone +44 (0) 800 9707142
Fax +44 (0) 800 066 4443
E-mail address sales@betterequipped.co.uk

1.4 Emergency telephone

Telephone +44 (0)1270 781238

2. Hazards identification

2.1 Classification of the substance or mixture

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

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].

2.1.2 Classification according to Directive 67/548/EEC or 1999/45/EC

This mixture is not classified as dangerous according to 1999/45/EC.

2.2 Label elements

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

not applicable

Signal word not applicable

Hazard Statements
not applicable

Precautionary statements
not applicable

2.2.2 Labelling (67/548/EEC or 1999/45/EC)

Hazard symbols:

not applicable

R-phrases
not applicable

S-phrases
not applicable

2.3 Other hazards

none

3. Composition/ Information on ingredients

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

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].

Hazardous ingredients:
Classification according to 67/548/EEC

Molecular formula
Molecular weight (g/mol)
CAS No.
EC No
INDEX no.

4. First-aid measures

4.1 General information

When in doubt or if symptoms are observed, get medical advice. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

4.2 After inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

4.3 In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

4.4 After eye contact

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

4.5 After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do not induce vomiting. Give nothing to eat or drink.

4.6 Self-protection of the first aider

First aider: Pay attention to self-protection!

4.7 Information to physician:

| | |
|-----------|-------------------|
| Symptoms | No data available |
| Hazards | No data available |
| Treatment | No data available |

5. Firefighting measures

5.1 Suitable extinguishing media

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.2 Extinguishing media which must not be used for safety reasons:

no restriction

5.3 Special hazards arising from the substance or mixture

In case of fire may be liberated: Pyrolysis products, toxic

5.4 Advice for firefighters

DO NOT fight fire when fire reaches explosives. In case of fire: Wear self-contained breathing apparatus.

5.5 Additional information

Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Use water spray jet to protect personnel and to cool endangered containers.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid generation of dust. Do not breathe dust. Provide adequate ventilation. Use personal protection equipment.

6.2 Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Spilled product must never be returned to the original container for recycling. Clean contaminated objects and areas thoroughly observing environmental regulations. Collect in closed and suitable containers for disposal.

6.4 Additional information

Clear spills immediately.

7. Handling and storage

7.1 Precautions for safe handling

Avoid: Inhalation. Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Protect from moisture.

7.2 Conditions for safe storage, including any incompatibilities

storage temperature

No data available

Keep container tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)

No data available

8. Exposure controls / Personal protection

8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2 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.

8.3 Personal protective equipment

Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

8.3.1 Eye / face protection

Eye glasses with side protection DIN-/EN-Norms: DIN EN 166

8.3.2 Skin protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Recommended glove articles DIN-/EN-Norms: DIN EN 374 In the case of wanting to use the gloves again, clean them before taking off and air them well.

By short-term hand contact

| | |
|--|----------------------|
| Suitable material: | NBR (Nitrile rubber) |
| Thickness of the glove material | 0,12 mm |
| Breakthrough time (maximum wearing time) | >480 min |
| Recommended glove articles | VWR 112-0998 |

By long-term hand contact

| | |
|--|-------------------------|
| Suitable material: | NBR (Nitrile rubber) |
| Thickness of the glove material | 0,38 mm |
| Breakthrough time (maximum wearing time) | >480 min |
| Recommended glove articles | VWR 112-3717 / 112-1381 |

8.3.3 Protective clothing

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

8.3.4 Respiratory protection

Usually no personal respirative protection necessary.

| | |
|--|-------------------|
| Suitable respiratory protection apparatus: | No data available |
| Recommendation | No data available |
| Suitable material: | No data available |

Recommendation

No data available

8.4 Additional information

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---------------------|-------------------|
| (a) Appearance | |
| Physical state | No data available |
| Colour | No data available |
| (b) Odour | No data available |
| (c) Odour threshold | No data available |

Safety relevant basic data

| | |
|--|-------------------|
| (d) pH | No data available |
| (e) Melting point/freezing point | No data available |
| (f) Initial boiling point and boiling range | No data available |
| (g) Flash point | No data available |
| (h) Evaporation rate | No data available |
| (i) Flammability (solid, gas) | not applicable |
| (j) Upper/lower flammability or explosive limits | |
| Lower explosion limit (Vol-%) | No data available |
| Upper explosion limit (Vol-%) | No data available |
| (k) Vapour pressure | No data available |
| (l) Vapour density | No data available |
| (m) Relative density | No data available |
| (n) Solubility(ies) | |
| Water solubility (g/l) | No data available |
| at °C: | |
| Soluble (g/l) in | No data available |
| (o) Partition coefficient: n-octanol/water | No data available |
| (p) Auto-ignition temperature | No data available |
| (q) Decomposition temperature | No data available |
| (r) Viscosity | |
| Kinematic viscosity | No data available |
| Dynamic viscosity | No data available |
| (s) Explosive properties | not applicable |
| (t) Oxidising properties | not applicable |

9.2 Other information

| | |
|-----------------------|-------------------|
| Bulk density | No data available |
| refraction index | No data available |
| dissociation constant | No data available |
| Surface tension | No data available |
| Henry constant | No data available |

10. Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

No data available

10.7 Additional information

No data available

11. Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity

Effective dose No data available

species: No data available

Exposure time

remark

source

Acute dermal toxicity

Effective dose No data available

species: No data available

Exposure time

remark

source

Acute inhalation toxicity

Effective dose No data available

species: No data available
Exposure time
remark
source

Irritant and corrosive effects

Primary irritation to the skin
Exposure time
species:
Result

Irritation to eyes
Exposure time
species:
Result

Irritation to respiratory tract
Exposure time
species:
Result

Sensitisation

In case of skin contact not sensitising.
After inhalation not sensitising.

Specific target organ toxicity (single exposure)

not relevant

Specific target organ toxicity (repeated exposure)

not relevant

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No indication of human carcinogenicity.

Germ cell mutagenicity/Genotoxicity

No indications of human germ cell mutagenicity exist.

Reproductive toxicity

No indications of human reproductive toxicity exist.

Aspiration hazard

not relevant

11.2 Other adverse effects

No data available

11.3 Additional information

No data available

12. Ecological information

12.1 Ecotoxicity

Acute (short-term) fish toxicity

LC50: No data available

EC50

species:

Exposure time

Chronic (long-term) fish toxicity

LC50: No data available

EC50

species:

Exposure time

Acute (short-term) daphnia toxicity

LC50: No data available

EC50

species:

Exposure time

Chronic (long-term) daphnia toxicity

LC50: No data available

EC50

species:

Exposure time

Acute (short-term) algae toxicity

LC50: No data available

EC50

species:

Exposure time

Chronic (long-term) algae toxicity

LC50: No data available

EC50

species:

Exposure time

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

(o) Partition coefficient: n-octanol/water

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT assessment

No data available

12.6 Other adverse effects

No data available

13. Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product

No data available

Appropriate disposal / Package

13.2 Additional information

No data available

14. Transport information

14.1 Land transport (ADR/RID)

No dangerous good in sense of these transport regulations.

14.2 Sea transport (IMDG)

No dangerous good in sense of these transport regulations.

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

No dangerous good in sense of these transport regulations.

14.4 Additional information

No data available

15. Regulatory information

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

Water hazard class (WGK)

No data available

15.2 Chemical Safety Assessment

No data available

16. Other information

16.1 Relevant R-, H- and EUH-phrases (Number and full text)

not applicable

not applicable

16.2 Additional information

Indication of changes

general update

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.