

**pH Buffer 1.68**

Material number 238272

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

Trade name: pH Buffer 1.68

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

General use: Buffer solution, calibration solution

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

Company name: Hamilton Bonaduz AG

Street/POB-No.: Via Crusch 8

Postal Code, city: 7402 Bonaduz

Switzerland

WWW: www.hamiltoncompany.com

Telephone: +41 58 610 12 76

Telefax: +41 58 610 00 10

Dept. responsible for information:

Susanne Näf-Rüdiger,

Telephone: +41 58 610 12 76, E-mail SNaef@hamilton.ch

**1.4 Emergency telephone number**

GIZ-Nord, Germany, Telephone: +49 (0)551-19240

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Classification according to EC regulation 1272/2008 (CLP)

Met. Corr. 1; H290 May be corrosive to metals.

**2.2 Label elements****Labelling (CLP)**Signal word: **Warning**

Hazard statements: H290 May be corrosive to metals.

Precautionary statements: P234 Keep only in original container.

P390 Absorb spillage to prevent material damage.

**2.3 Other hazards**

Due to its pH value (see section 9), irritation of the skin and eyes cannot be ruled out.

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

3.1 Substances: not applicable

**3.2 Mixtures**

Chemical characterisation: Aqueous solution of anorganic salts and organic compounds.

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 205-634-3 CAS 6153-56-6	Oxalic acid - 2-hydrate	< 1 %	Acute Tox. 4; H302. Acute Tox. 4; H312.

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

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- In case of inhalation: Move victim to fresh air. In case of respiratory difficulties seek medical attention.
- Following skin contact: Remove contaminated clothing. Remove residues with soap and water.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
- After swallowing: Rinse mouth and drink large quantities of water.  
If you feel unwell, seek medical advice.

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

- After contact with skin: May cause irritations.  
After eye contact: May cause irritations.

**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:

Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

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

Fires in the immediate vicinity may cause the development of dangerous vapours.

**5.3 Advice for firefighters**

Special protective equipment for firefighters:

In case of surrounding fires: Wear self-contained breathing apparatus.

Additional information: Hazchem-Code: 2X

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

Wear suitable protective clothing. Avoid contact with skin and eyes.

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**6.2 Environmental precautions**

Do not allow to penetrate into soil, waterbodies or drains.

**6.3 Methods and material for containment and cleaning up**Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.  
Store in special closed containers and dispose of according to ordinance. Wash spill area with plenty of water.**6.4 Reference to other sections**

Refer additionally to section 8 and 13.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Advices on safe handling: Provide adequate ventilation. Wear suitable protective clothing. Avoid contact with skin and eyes.

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storerooms and containers:

Keep container tightly closed. Store at room temperature.

Storage class:

8B = Non-combustible corrosive substances

**7.3 Specific end use(s)**

Buffer solution, calibration solution

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters**

Additional information: Contains no substances with occupational exposure limit values.

**8.2 Exposure controls**

When aerosols and vapours form: Withdraw by suction.

**Personal protection equipment****Occupational exposure controls**

Respiratory protection: With correct and proper use, and under normal conditions, breathing protection is not required.

Hand protection:

Protective gloves according to EN 374.

Glove material: Nitrile rubber or butyl caoutchouc (butyl rubber).

Breakthrough time: &gt;480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection:

Tightly sealed goggles according to EN 166.

Body protection:

Wear suitable protective clothing.

General protection and hygiene measures:

Change contaminated clothing.

Wash hands before breaks and after work.

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**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Appearance:	Form: liquid Colour: colourless
Odour:	odourless
Odour threshold:	no data available
pH value:	at 20 °C: 1.7
Melting point/freezing point:	no data available
Initial boiling point and boiling range:	approx. 100 °C
Flash point/flash point range:	no data available
Evaporation rate:	no data available
Flammability:	no data available
Explosion limits:	no data available
Vapour pressure:	no data available
Vapour density:	no data available
Density:	at 20 °C: approx. 1.0 g/mL
Water solubility:	at 20 °C: completely miscible
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature:	no data available
Thermal decomposition:	no data available
Viscosity, kinematic:	no data available
Explosive properties:	no data available
Oxidizing characteristics:	no data available

**9.2 Other information**

Additional information: no data available

**SECTION 10: Stability and reactivity****10.1 Reactivity**

May be corrosive to metals.

**10.2 Chemical stability**

Product is stable under normal storage conditions.

**10.3 Possibility of hazardous reactions**

No hazardous reactions known.

**10.4 Conditions to avoid**

no data available

**10.5 Incompatible materials**

metals, strong acids, alkalis

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**10.6 Hazardous decomposition products**

Fires in the immediate vicinity may cause the development of dangerous vapours.  
Thermal decomposition: no data available

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

Toxicological effects: Acute toxicity (oral): Lack of data.  
Acute toxicity (dermal): Lack of data.  
Acute toxicity (inhalative): Lack of data.  
Skin corrosion/irritation: Lack of data.  
Eye damage/irritation: Lack of data.  
Sensitisation to the respiratory tract: Lack of data.  
Skin sensitisation: Lack of data.  
Germ cell mutagenicity/Genotoxicity: Lack of data.  
Carcinogenicity: Lack of data.  
Reproductive toxicity: Lack of data.  
Effects on or via lactation: Lack of data.  
Specific target organ toxicity (single exposure): Lack of data.  
Specific target organ toxicity (repeated exposure): Lack of data.  
Aspiration hazard: Lack of data.

**Symptoms**

After contact with skin: May cause irritations.  
After eye contact: May cause irritations.

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

Aquatic toxicity: Harmful effects on water organisms by modification of pH-value.

**12.2. Persistence and degradability**

Further details: no data available

**12.3 Bioaccumulative potential**

Partition coefficient: n-octanol/water:  
no data available

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

no data available

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**12.6 Other adverse effects**

General information: Do not allow to enter undiluted resp. in large quantities into surface water or into drains.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Waste key number: 06 03 14 = Solid salts and solutions, which contain neither heavy metals nor cyanides

Recommendation: Dispose of waste according to applicable legislation.

**Contaminated packaging**

Waste key number: 15 01 02 = Plastic packaging

Recommendation: Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled.

**SECTION 14: Transport information****14.1 UN number**

ADR/RID, IMDG, IATA-DGR:

UN 3265

**14.2 UN proper shipping name**

ADR/RID, IMDG, IATA-DGR:

UN 3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Oxalic acid - 2-hydrate)

**14.3 Transport hazard class(es)**

ADR/RID: Class 8, Code: C3

IMDG: Class 8, Subrisk -

IATA-DGR: Class 8

**14.4 Packing group**

ADR/RID, IMDG, IATA-DGR:

III

**14.5 Environmental hazards**

Marine pollutant: No

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**14.6 Special precautions for user****Land transport (ADR/RID)**

Warning board:	ADR/RID: Kemmler-number 80, UN number UN 3265
Hazard label:	8
Special provisions:	274
Limited quantities:	5 L
EQ:	E1
Contaminated packaging - Instructions:	P001 IBC03 LP01 R001
Special provisions for packing together:	MP19
Portable tanks - Instructions:	T7
Portable tanks - Special provisions:	TP1 TP28
Tank coding:	L4BN
Tunnel restriction code:	E

**Sea transport (IMDG)**

EmS:	F-A, S-B
Special provisions:	223, 274
Limited quantities:	5 L
EQ:	E1
Contaminated packaging - Instructions:	P001, LP01
Contaminated packaging - Provisions:	-
IBC - Instructions:	IBC03
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T7
Tank instructions - Provisions:	TP1, TP28
Stowage and handling:	Category A. SW2
Properties and observations:	Causes burns to skin, eyes and mucous membranes.
Segregation group:	1

**Air transport (IATA)**

Hazard:	Corrosive
EQ:	E1
Passenger Ltd.Qty.:	Pack.Instr. Y841 - Max. Net Qty/Pkg. 1 L
Passenger:	Pack.Instr. 852 - Max. Net Qty/Pkg. 5 L
Cargo:	Pack.Instr. 856 - Max. Net Qty/Pkg. 60 L
Special Provisioning:	A3 A803
ERG:	8L

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

no data available

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations - Great Britain**

Hazchem-Code:	2X
	No data available

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**National regulations - EC member states****Labelling of packaging with <= 125mL content**Signal word: **Warning**  
Hazard statements: not applicable  
Precautionary statements: not applicable**15.2 Chemical Safety Assessment**

For this mixture a chemical safety assessment is not required.

**SECTION 16: Other information****Further information**

Wording of the H-phrases under paragraph 2 and 3:

H290 = May be corrosive to metals.  
H302 = Harmful if swallowed.  
H312 = Harmful in contact with skin.Reason of change: General revision (Regulation (EU) No 2015/830)  
Date of first version: 21/2/2011**Department issuing data sheet**

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.