

**pH Buffer 4.01**

Material number 238xx4

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**1. Product and company identification****Product identifier**

Trade name: pH Buffer 4.01

This safety data sheet pertains to the following products:

Article number 238194, 238217, 238317, 238332, 238895, 238917, 238924, 238922, 242317.

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

General use: Buffer solution, calibration solution

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

Company name: Hamilton Bonaduz AG

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Postal Code, city: 7402 Bonaduz

Switzerland

WWW: www.hamiltoncompany.com

Telephone: +41 58 610 10 10

Department responsible for information:

After-sales service

E-mail: techsupport.pa.ch@hamilton.ch

**Emergency phone number****GIZ-Nord, Göttingen, Germany,****Telephone: +49 551-19240****2. Hazards identification****Emergency overview**

Appearance: Physical state at 68 °F and 101.3 kPa: liquid

Color: Red

Odor: Odorless

Classification: This material is classified as not hazardous.

**Regulatory status**

This material is not considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Hazards not otherwise classified**

Special danger of slipping by leaking/spilling product.

see section 11: Toxicological information

**3. Composition / Information on ingredients**

Chemical characterization: Aqueous solution with Potassium hydrogen phthalate

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 55965-84-9	Mixture of 5-chloro-2-methyl-2H-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	< 0.0015 %	Acute Toxicity - oral - Category 3. Acute Toxicity - dermal - Category 2. Acute Toxicity - inhalative - Category 2. Skin Corrosion - Category 1C. Eye Damage - Category 1. Sensitization - skin - Category 1A. Aquatic toxicity - acute - Category 1 (M-factor = 100). Aquatic toxicity - chronic - Category 1 (M-factor = 100).

## 4. First aid measures

General information:	If medical advice is needed, have product container or label at hand. Take off contaminated clothing and wash it before reuse.
In case of inhalation:	Move victim to fresh air. In case of respiratory difficulties seek medical attention.
Following skin contact:	Remove residues with soap and water. In case of skin reactions, consult a physician.
After eye contact:	With eyelids open, wash out eyes for several minutes under flowing water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.
After swallowing:	Rinse mouth and drink large quantities of water. If you feel unwell, seek medical advice.

### Most important symptoms/effects, acute and delayed

May cause allergic reactions in already sensitized persons.

### Information to physician

Treat symptomatically.

## 5. Fire fighting measures

Flash point/flash point range:	No data available
Auto-ignition temperature:	No data available
Suitable extinguishing media:	Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

### Specific hazards arising from the chemical

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

Protective equipment and precautions for firefighters:	In case of surrounding fires: Wear self-contained breathing apparatus.
Additional information:	Cool exposed containers with water spray. Do not allow water used to extinguish fire to enter drains, ground or waterways. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

## 6. Accidental release measures

Personal precautions:	Avoid contact with skin and eyes. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse.
Environmental precautions:	Do not allow to penetrate into soil, waterbodies or drains.
Methods for clean-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.
Additional information:	Special danger of slipping by leaking/spilling product.

## 7. Handling and storage

### Handling

Advices on safe handling:	Provide adequate ventilation. Avoid contact with skin and eyes. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Wash hands thoroughly after handling.
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## Storage

Requirements for storerooms and containers:

Keep container tightly closed. Store at room temperature.  
Protect from frost.  
Store containers in upright position.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs.  
keep away from acids and alkalis

## 8. Exposure controls / personal protection

### Engineering controls

Provide good ventilation and/or an exhaust system in the work area.  
See also information in chapter 7, section storage.

### Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection:

Wear suitable protective clothing.  
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.  
Glove material: Nitrile rubber or butyl caoutchouc (butyl rubber).  
Breakthrough time: >480 min.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection:

Provide adequate ventilation.

General hygiene considerations

Do not breathe vapors. Do not get in eyes, on skin, or on clothing.  
Do not eat, drink or smoke when using this product.  
Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.

### Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance:	Physical state at 68 °F and 101.3 kPa: liquid Color: Red
Odor:	Odorless
Odor threshold:	No data available
pH:	at 68 °F: 4.0
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	approx. 212 °F
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	at 68 °F: approx. 1.0 g/mL
Water solubility:	at 68 °F: Completely miscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available

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Solid content: 0.9 - 1.9 %  
Water content: 98.1 - 99.1 %

**10. Stability and reactivity**

Reactivity: Refer to subsection "Possibility of hazardous reactions".

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: No hazardous reaction when handled and stored according to provisions.

Conditions to avoid: Protect from frost.

Incompatible materials: Strong acids and alkalis

Hazardous decomposition products: No decomposition when used properly.

Thermal decomposition: No data available

**11. Toxicological information****Toxicological tests**

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Lack of data.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Lack of data.

Serious eye damage/irritation: Lack of data.

Sensitisation to the respiratory tract: Lack of data.

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

Contains Mixture of 5-chloro-2-methyl-2H-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

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.

**12. Ecological information****Ecotoxicity**

Further details: No data available

**Mobility in soil**

No data available

**Persistence and degradability**

Further details: No data available

**Additional ecological information**

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

**13. Disposal considerations****Product**

Recommendation: Dispose of waste according to applicable legislation.

**Package**

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

**14. Transport information****UN number**

ADR/RID, IMDG, IATA-DGR: not applicable

**UN proper shipping name**

ADR/RID, IMDG, IATA-DGR: Not restricted

**Transport hazard class(es)**

ADR/RID, IMDG, IATA-DGR: not applicable

**Packing group**

ADR/RID, IMDG, IATA-DGR: not applicable

**Environmental hazards**

Marine pollutant: no

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

No data available

**USA: Department of Transportation (DOT)**

Proper shipping name: Not restricted

**Sea transport (IMDG)**

Proper shipping name: Not restricted

Marine pollutant: no

**Air transport (IATA)**

Proper shipping name: Not restricted

**Further information**

No dangerous good in sense of these transport regulations.

**15. Regulatory information****National regulations - U.S. Federal Regulations**

Mixture of 5-chloro-2-methyl-2H-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1):

CAS 55965-84-9 = CAS 2682-20-4 + 26172-55-4:

TSCA listed - Flags P; S

### 16. Other information

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 0 (Minimal)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 0 (Minimal)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

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  
 Aquatic toxicity - acute: Hazardous to the aquatic environment - acute  
 Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic  
 AS/NZS: Australian Standards/New Zealand Standards  
 CAS: Chemical Abstracts Service  
 CFR: Code of Federal Regulations  
 CLP: Classification, Labelling and Packaging  
 DMEL: Derived minimal effect level  
 DNEL: Derived no-effect level  
 EC: European Community  
 EN: European Standard  
 EQ: Excepted quantities  
 Eye Damage: Eye damage  
 IATA: International Air Transport Association  
 IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
 IMDG Code: International Maritime Dangerous Goods Code  
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
 M-factor: Multiplication factor  
 Mixture of 5-chloro-2-methyl-2H-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) Acute Toxicity: Acute toxicity  
 OSHA: Occupational Safety and Health Administration  
 PBT: Persistent, bioaccumulative and toxic  
 PNEC: Predicted no-effect concentration  
 RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
 Sensitization - skin: Skin sensitisation  
 Skin Corrosion: Skin corrosion  
 TRGS: Technical Rules for Hazardous Substances  
 vPvB: Very persistent and very bioaccumulative

Reason of change:

Changes in section 1: Material number

Date of first version:

2/18/2011

#### Department issuing data sheet

Contact person:

see section 1: Department responsible for information

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.

Most recent product information is available at  
<http://sumdat.net/923bcac>

