

SECTION 1: Identification of the substance or mixture and of the supplier

Product identifier

Trade name: **pH-Pufferlösung 4,00**

Synonym: *pH Buffer Solution 4.00*

Article number: *CPY20-C*

Recommended use of the chemical and restrictions on use *No further relevant information available.*

Application of the substance / the mixture *Laboratory chemicals*

Supplier's details

Manufacturer/Supplier:

*Endress+Hauser
Conducta GmbH+Co. KG
Dieselstraße 24
D-70839 Gerlingen*

Further information obtainable from:

*Phone: +49 (0)7156 209-10117
E-Mail: MSDS.PCC@endress.com*

Emergency phone number *+27 (0)861 555 777*

SECTION 2: Hazard identification

Classification of the substance or mixture

The product is not classified, according to the Globally Harmonised System (GHS).

GHS label elements

GHS label elements *Void*

Hazard pictograms *Void*

Signal word *Void*

Hazard statements *Void*

Additional information:

*Contains reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.
Safety data sheet available on request.*

Other hazards

Results of PBT and vPvB assessment

PBT: *Not applicable.*

vPvB: *Not applicable.*

SECTION 3: Composition or information on ingredients

Mixtures

Description: *aqueous solution*

Dangerous components:

CAS: 55965-84-9	reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) ⚠ Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 2, H330; ⚠ Skin Corr. 1C, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ⚠ Skin Sens. 1A, H317, EUH071 Specific concentration limits: Skin Corr. 1C; H314: C ≥ 0.6 % Skin Irrit. 2; H315: 0.06 % ≤ C < 0.6 % Eye Dam. 1; H318: C ≥ 0.6 % Eye Irrit. 2; H319: 0.06 % ≤ C < 0.6 % Skin Sens. 1A; H317: C ≥ 0.0015 %	<0.1%
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Additional information: *For the wording of the listed hazard phrases refer to section 16.*

(Contd. on page 2)

Trade name: pH-Pufferlösung 4,00

(Contd. of page 1)

SECTION 4: First-aid measures

Description of necessary first-aid measures

After inhalation: *Supply fresh air; consult doctor in case of complaints.*

After skin contact: *Generally the product does not irritate the skin.*

After eye contact: *Rinse opened eye for several minutes under running water.*

After swallowing: *Rinse out mouth and then drink plenty of water.*

Most important symptoms or effects, acute and delayed *No further relevant information available.*

Indication of immediate medical attention and special treatment needed, if necessary

No further relevant information available.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Suitable extinguishing agents: *Use fire extinguishing methods suitable to surrounding conditions.*

For safety reasons unsuitable extinguishing agents: *no further information*

Specific hazards arising from the chemical *No further relevant information available.*

Special protective actions for fire fighters *No further relevant information available.*

Protective equipment: *Wear self-contained respiratory protective device.*

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures *Wear protective clothing.*

Environmental precautions: *Dilute with plenty of water.*

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Reference to other sections

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

Precautions for safe handling *No special precautions are necessary if used correctly.*

Information about fire - and explosion protection: *No special measures required.*

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: *No special requirements.*

Information about storage in one common storage facility: *Not required.*

Further information about storage conditions: *None.*

Storage class: 12

Specific end use(s) *No further relevant information available.*

SECTION 8: Exposure controls or personal protection

Control parameters

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: *The lists valid during the making were used as basis.*

Exposure controls

Appropriate engineering controls *No further data; see section 7.*

(Contd. on page 3)

Trade name: pH-Pufferlösung 4,00

(Contd. of page 2)

Individual protection measures, such as personal protective equipment (PPE)**General protective and hygienic measures:** *Wash hands before breaks and at the end of work.***Respiratory protection:** *Use suitable respiratory protective device only when aerosol or mist is formed.***Hand protection***Protective gloves and protective skin cream**To avoid skin problems reduce the wearing of gloves to the required minimum.**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.**No chemical-protective gloves required.***Material of gloves***The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.***Penetration time of glove material***The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.***Eye or face protection** *Goggles recommended during refilling***Body protection:** *Protective work clothing***SECTION 9: Physical and chemical properties****Information on basic physical and chemical properties****General Information****Physical state***Fluid***Colour:***Red***Odour:***Odourless***Odour threshold:***Not determined.***Melting point/freezing point:***Undetermined.***نقطة الغليان أو نقطة الغليان الأولية ونطاق الغليان***100 °C***Flammability***Not applicable.***Upper or lower flammability or explosive limits****Lower:***Not determined.***Upper:***Not determined.***Flash point:***Not applicable.***Decomposition temperature:***Not determined.***pH at 20 °C***4***Viscosity:****Viscosity***Not determined.***Dynamic:***Not determined.***Solubility****water:***Fully miscible.***Partition coefficient: n-octanol or water***Not determined.***Vapour pressure at 20 °C:***23 hPa***Vapour density + Relative density****Density:***Not determined.***Relative density***Not determined.***Vapour density***Not determined.***Other information****Appearance:****Form:***Fluid***Important information on protection of health and environment, and on safety.****Ignition temperature:***Product is not selfigniting.*

(Contd. on page 4)

Trade name: pH-Pufferlösung 4,00

(Contd. of page 3)

Explosive properties: *Product does not present an explosion hazard.
Not determined.*

Solvent content:

Water: 98.5 %

Solids content: 0.0 %

Change in condition

Evaporation rate *Not determined.*

Information with regard to physical hazard classes

Explosives *Void*

Flammable gases *Void*

Aerosols *Void*

Oxidising gases *Void*

Gases under pressure *Void*

Flammable liquids *Void*

Flammable solids *Void*

Self-reactive substances and mixtures *Void*

Pyrophoric liquids *Void*

Pyrophoric solids *Void*

Self-heating substances and mixtures *Void*

Substances and mixtures, which emit flammable

gases in contact with water *Void*

Oxidising liquids *Void*

Oxidising solids *Void*

Organic peroxides *Void*

Corrosive to metals *Void*

Desensitised explosives *Void*

SECTION 10: Stability and reactivity

Reactivity *No further relevant information available.*

Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Possibility of hazardous reactions *No dangerous reactions known.*

Conditions to avoid *No further relevant information available.*

Incompatible materials: *No further relevant information available.*

Hazardous decomposition products: *No dangerous decomposition products known.*

SECTION 11: Toxicological information**Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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

Skin corrosion or irritation *Based on available data, the classification criteria are not met.*

Serious eye damage or irritation *Based on available data, the classification criteria are not met.*

Respiratory and skin sensitization *Based on available data, the classification criteria are not met.*

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.*

Specific target organ toxicity – single exposure

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

Specific target organ toxicity – repeated exposure

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

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

(Contd. on page 5)

Trade name: pH-Pufferlösung 4,00

(Contd. of page 4)

Information on other hazards

endocrine disrupting potential

None of the ingredients is listed.

SECTION 12: Ecological information

Toxicity

Aquatic toxicity: *No further relevant information available.*

Persistence and degradability *No further relevant information available.*

Bioaccumulative potential *No further relevant information available.*

Mobility in soil *No further relevant information available.*

Results of PBT and vPvB assessment

PBT: *Not applicable.*

vPvB: *Not applicable.*

Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

Other adverse effects

Additional ecological information:

General notes: *Not hazardous for water.*

SECTION 13: Disposal considerations

Waste treatment methods

Recommendation

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: *Disposal must be made according to official regulations.*

Recommended cleansing agents: *Water, if necessary together with cleansing agents.*

SECTION 14: Transport information

UN number

ADN, IMDG, IATA *Void*

UN proper shipping name

ADR, ADN, IMDG, IATA *Void*

Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class *Void*

Packing group

ADR, IMDG, IATA *Void*

Environmental hazards: *Not applicable.*

Special precautions for user *Not applicable.*

Transport in bulk according to Annex II of

MARPOL 73/78 and the IBC Code *Not applicable.*

UN "Model Regulation": *Void*

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

GHS label elements *Void*

Hazard pictograms *Void*

Signal word *Void*

Hazard statements *Void*

(Contd. on page 6)

Trade name: pH-Pufferlösung 4,00

(Contd. of page 5)

Directive 2012/18/EU**Named dangerous substances - ANNEX I** *None of the ingredients is listed.***Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.***SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: PCC-TWR**Contact:** *MSDS.pcc@endress.com***Abbreviations and acronyms:***ADR: Accord relatif au transport international 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**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Acute Tox. 3: Acute toxicity – Category 3**Acute Tox. 2: Acute toxicity – Category 2**Skin Corr. 1C: Skin corrosion/irritation – Category 1C**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Skin Sens. 1A: Skin sensitisation – Category 1A**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1**** Data compared to the previous version altered.**