

SECTION 1: Identification of the substance/mixture and of the company/undertaking**Product identifier****Trade name:** pH-Pufferlösung 9,22**Synonym:** pH Buffer Solution 9.22**Article number:** CPY20-I**Relevant identified uses of the substance or mixture and uses advised against***No further relevant information available.***Application of the substance / the mixture** *Laboratory chemicals***Details of the supplier of the safety data sheet****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 telephone number:** 00971 800 424 (from 7 am to 3 pm, from Sunday to Thursday)**SECTION 2: Hazards identification****Classification of the substance or mixture***health hazard**Repr. 1B H360FD May damage fertility. May damage the unborn child.***Label elements****GHS label elements***The product is classified and labelled according to the Globally Harmonised System (GHS).***Hazard pictograms**

GHS08

Signal word *Danger***Hazard-determining components of labelling:***boric acid, disodium salt***Hazard statements***May damage fertility. May damage the unborn child.***Precautionary statements***Obtain special instructions before use.**Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.**IF exposed or concerned: Get medical advice/attention.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.***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.**Restricted to professional users.***Other hazards****Results of PBT and vPvB assessment****PBT:** *Not applicable.*

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vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 1330-43-4 EINECS: 215-540-4	boric acid, disodium salt Repr. 1B, H360FD	0.1-1%
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%
SVHC		
CAS: 1330-43-4	boric acid, disodium salt	

Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****Description of 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 and effects, both acute and delayed**

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**Extinguishing media****Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** no further information**Special hazards arising from the substance or mixture** No further relevant information available.**Advice for firefighters** No further relevant information available.**Protective equipment:** No special measures required.**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).

Dispose contaminated material as waste according to section 13.

Reference to other sections

No dangerous substances are released.

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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** *Open and handle receptacle with care.***Information about fire - and explosion protection:** *Keep respiratory protective device available.***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:** *Keep container tightly sealed.***Storage class:** 6.1 D**Specific end use(s)** *No further relevant information available.***SECTION 8: Exposure controls/personal protection****Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 1330-43-4 boric acid, disodium salt**

REL (USA)	Long-term value: 1 mg/m ³ anhydrous
TLV (USA)	Short-term value: 6* mg/m ³ Long-term value: 2* mg/m ³ *as inhalable fraction, A4
WEL (Great Britain)	Long-term value: 1 mg/m ³

Additional information: *The lists valid during the making were used as basis.***Exposure controls****Appropriate engineering controls** *No further data; see section 7.***Individual protection measures, such as personal protective equipment****General protective and hygienic measures:***Keep away from foodstuffs, beverages and feed.**Wash hands before breaks and at the end of work.**Store protective clothing separately.***Respiratory protection:** *Not required.***Hand protection***Protective gloves and protective skin cream**Protective gloves**To avoid skin problems reduce the wearing of gloves to the required minimum.**Only use chemical-protective gloves with CE-labelling of category III.**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.**No chemical-protective gloves required.***Material of gloves***Nitrile rubber, NBR**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.*

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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/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:	Blue
Odour:	Odourless
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range	100 °C
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH at 20 °C	9.2
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Fully miscible.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20 °C:	23 hPa
Density and/or 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.
Explosive properties: Product does not present an explosion hazard.
 Not determined.

Solvent content:

Water: 99.0 %

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

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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.

Reproductive toxicity May damage fertility. May damage the unborn child.

Information on other hazards

Endocrine disrupting properties

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

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.

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Recommended cleansing agents: *Water, if necessary together with cleansing agents.***SECTION 14: Transport information**

UN number or ID 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.*
Maritime transport in bulk according to IMO instruments *Not applicable.*
UN "Model Regulation": *Void*

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

Hazard pictograms



GHS08

Signal word *Danger*

Hazard-determining components of labelling:

boric acid, disodium salt

Hazard statements

May damage fertility. May damage the unborn child.

Precautionary statements

Obtain special instructions before use.

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Directive 2012/18/EU

Named dangerous substances - ANNEX I *None of the ingredients is listed.*

National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

CAS: 1330-43-4 | *boric acid, disodium salt*

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

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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**ELINECS: 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**SVHC: Substances of Very High Concern**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**Repr. 1B: Reproductive toxicity – Category 1B**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.**