

## 1 Identification

### Product identifier

Trade name: **Standard solution Cu**

Synonym: 2 mg/L

Article number: CAY852V10C20AAE

Application of the substance / the mixture *Laboratory chemicals*

### Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Endress+Hauser Conducta Inc.  
4123 E. La Palma Ave., Suite 200  
Anaheim  
CA 92807-1813  
USA

#### Information department:

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

Emergency telephone number: 001 18000 222 1222

## 2 Hazard(s) identification

### Classification of the substance or mixture

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

### Label elements

GHS label elements *Void*

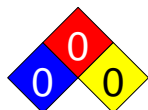
Hazard pictograms *Void*

Signal word *Void*

Hazard statements *Void*

Classification system:

NFPA ratings (scale 0 - 4)



Health = 0

Fire = 0

Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 0

Fire = 0

Reactivity = 0

### Other hazards

*The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.*

### Results of PBT and vPvB assessment

PBT: *Not applicable.*

vPvB: *Not applicable.*

## 3 Composition/information on ingredients

Chemical characterization: **Mixtures**

Description: *aqueous solution*

Dangerous components: *Void*

Additional information: *For the wording of the listed hazard phrases refer to section 16.*

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## 4 First-aid measures

### Description of first aid measures

**General information:** *No special measures required.*

**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:** *If symptoms persist consult doctor.*

### Information for doctor:

**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.*

## \* 5 Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing agents:

*CO<sub>2</sub>, extinguishing 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.*

## 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.*

## 7 Handling and storage

**Precautions for safe handling** *No special measures required.*

**Information about protection against explosions and fires:** *No special measures required.*

### 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.*

## 8 Exposure controls/personal protection

**Additional information about design of technical systems:** *No further data; see item 7.*

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**Control parameters****Components 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 that were valid during the creation were used as basis.*

**Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

*The usual precautionary measures for handling chemicals should be followed.*

**Breathing equipment:** *Not required.*

**Protection of hands:** *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 protection:** *Not required.*

**Body protection:** *Protective work clothing*

**\* 9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	<i>Fluid</i>
<b>Color:</b>	<i>Colorless</i>
<b>Odor:</b>	<i>Odorless</i>
<b>Odor threshold:</b>	<i>Not determined.</i>
<b>pH-value at 20 °C (68 °F):</b>	<i>3-4</i>

**Change in condition**

<b>Melting point/Melting range:</b>	<i>0 °C (32 °F)</i>
<b>Boiling point/Boiling range:</b>	<i>100 °C (212 °F)</i>

**Flash point:** *Not applicable.*

**Flammability (solid, gaseous):** *Not applicable.*

**Decomposition temperature:** *Not determined.*

**Auto igniting:** *Product is not selfigniting.*

**Danger of explosion:** *Product does not present an explosion hazard.  
Not determined.*

**Explosion limits:**

<b>Lower:</b>	<i>Not determined.</i>
<b>Upper:</b>	<i>Not determined.</i>

**Vapor pressure at 20 °C (68 °F):** *23 hPa (17.3 mm Hg)*

**Density at 20 °C (68 °F):** *1 g/cm<sup>3</sup> (8.345 lbs/gal)*

**Relative density** *Not determined.*

**Vapor density** *Not determined.*

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<b>Evaporation rate</b>	<i>Not determined.</i>
<b>Solubility in / Miscibility with Water:</b>	<i>Fully miscible.</i>
<b>Partition coefficient (n-octanol/water):</b>	<i>Not determined.</i>
<b>Viscosity:</b>	
<b>Dynamic:</b>	<i>Not determined.</i>
<b>Kinematic:</b>	<i>Not determined.</i>
<b>Solvent content:</b>	
<b>Water:</b>	<i>100.0 %</i>
<b>Solids content:</b>	<i>0.0 %</i>
<b>Other information</b>	<i>No further relevant information available.</i>

**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.*

**11 Toxicological information**

**Information on toxicological effects**  
**Acute toxicity:**  
**Primary irritant effect:**  
**on the skin:** *No irritant effect.*  
**on the eye:** *No irritating effect.*  
**Sensitization:** *No sensitizing effects known.*  
**Additional toxicological information:**  
*The product is not subject to classification according to internally approved calculation methods for preparations.*  
*When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.*

**12 Ecological information**

**Toxicity**  
**Aquatic toxicity:** *No further relevant information available.*  
**Persistence and degradability** *No further relevant information available.*  
**Behavior in environmental systems:**  
**Bioaccumulative potential** *No further relevant information available.*  
**Mobility in soil** *No further relevant information available.*  
**Additional ecological information:**  
**General notes:** *Not hazardous for water.*  
**Results of PBT and vPvB assessment**  
**PBT:** *Not applicable.*  
**vPvB:** *Not applicable.*  
**Other adverse effects** *No further relevant information available.*

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**13 Disposal considerations****Waste treatment methods****Recommendation:** *Smaller quantities can be disposed of with household waste.***Uncleaned packagings:****Recommendation:** *Disposal must be made according to official regulations.***Recommended cleansing agent:** *Water, if necessary with cleansing agents.***\*14 Transport information****UN-Number**

DOT, ADN, IMDG, IATA

Void

**UN proper shipping name**

DOT, ADN, IMDG, IATA

Void

**Transport hazard class(es)**

DOT, ADN, IMDG, IATA

**Class**

Void

**Packing group**

DOT, IMDG, IATA

Void

**Environmental hazards:****Marine pollutant:**

No

**Special precautions for user**

Not applicable.

**Transport in bulk according to Annex II of****MARPOL73/78 and the IBC Code**

Not applicable.

**Transport/Additional information:**

Not dangerous according to the above specifications.

**UN "Model Regulation":**

Void

**15 Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture***No further relevant information available.***Sara****Section 355 (extremely hazardous substances):***None of the ingredient is listed.***Section 313 (Specific toxic chemical listings):**

CAS: 3251-23-8 | copper dinitrate

**TSCA (Toxic Substances Control Act):***All components have the value ACTIVE.***Hazardous Air Pollutants***None of the ingredients is listed.***Proposition 65****Chemicals known to cause cancer:***None of the ingredients is listed.***Chemicals known to cause reproductive toxicity for females:***None of the ingredients is listed.***Chemicals known to cause reproductive toxicity for males:***None of the ingredients is listed.***Chemicals known to cause developmental toxicity:***None of the ingredients is listed.*

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**Carcinogenicity categories****EPA (Environmental Protection Agency)***None of the ingredients is listed.***TLV (Threshold Limit Value)***None of the ingredients is listed.***MAK (German Maximum Workplace Concentration)***None of the ingredients is listed.***NIOSH-Ca (National Institute for Occupational Safety and Health)***None of the ingredients is listed.***GHS label elements** *Void***Hazard pictograms** *Void***Signal word** *Void***Hazard statements** *Void***Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.***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***Date of preparation / last revision** *03/31/2022 / 2***Abbreviations and acronyms:***RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)**IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)**ICAO: International Civil Aviation Organisation**ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)**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**DOT: US Department of Transportation**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)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**NIOSH: National Institute for Occupational Safety**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit***\* Data compared to the previous version altered.**