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

Trade name:

**Standard solution Cr(VI)****2 mg/l**Article number: *CY80CR-AF+TM***1.2 Relevant identified uses of the substance or mixture and uses advised against**Product category *PC21 Laboratory chemicals*Application of the substance / the mixture *Laboratory chemicals***1.3 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***1.4 Emergency telephone number:** Phone: +49(0)6131-19240

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**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008***The product is not classified, according to the CLP regulation.*

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**2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 *Void*Hazard pictograms *Void*Signal word *Void*Hazard statements *Void***2.3 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.*

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**SECTION 3: Composition/information on ingredients****3.2 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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**SECTION 4: First aid measures****4.1 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.*

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**After swallowing:** *If symptoms persist consult doctor.***4.2 Most important symptoms and effects, both acute and delayed***No further relevant information available.***4.3 Indication of any immediate medical attention and special treatment needed***No further relevant information available.*

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**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:***CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.***For safety reasons unsuitable extinguishing agents:** *no further information***5.2 Special hazards arising from the substance or mixture** *No further relevant information available.***5.3 Advice for firefighters** *No further relevant information available.***Protective equipment:** *No special measures required.*

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures** *Wear protective clothing.***6.2 Environmental precautions:** *Dilute with plenty of water.***6.3 Methods and material for containment and cleaning up:***Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).***6.4 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.*

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling** *No special measures required.***Information about fire - and explosion protection:** *No special measures required.***7.2 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***7.3 Specific end use(s)** *No further relevant information available.*

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**SECTION 8: Exposure controls/personal protection****8.1 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.***8.2 Exposure controls****Appropriate engineering controls** *No further data; see section 7.***Individual protection measures, such as personal protective equipment****General protective and hygienic measures:***The usual precautionary measures are to be adhered to when handling chemicals.***Respiratory protection:** *Not required.*

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**Hand protection** *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.***Eyeface protection** *Not required.***Body protection:** *Protective work clothing***SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information**

|                                                                 |                           |
|-----------------------------------------------------------------|---------------------------|
| <b>Physical state</b>                                           | <i>Fluid</i>              |
| <b>Colour:</b>                                                  | <i>Colourless</i>         |
| <b>Odour:</b>                                                   | <i>Odourless</i>          |
| <b>Odour threshold:</b>                                         | <i>Not determined.</i>    |
| <b>Melting point/freezing point:</b>                            | <i>0 °C</i>               |
| <b>Boiling point or initial boiling point and boiling range</b> | <i>100 °C</i>             |
| <b>Flammability</b>                                             | <i>Not applicable.</i>    |
| <b>Lower and upper explosion limit</b>                          |                           |
| <b>Lower:</b>                                                   | <i>Not determined.</i>    |
| <b>Upper:</b>                                                   | <i>Not determined.</i>    |
| <b>Flash point:</b>                                             | <i>Not applicable.</i>    |
| <b>Decomposition temperature:</b>                               | <i>Not determined.</i>    |
| <b>pH at 20 °C</b>                                              | <i>4</i>                  |
| <b>Viscosity:</b>                                               |                           |
| <b>Kinematic viscosity</b>                                      | <i>Not determined.</i>    |
| <b>Dynamic:</b>                                                 | <i>Not determined.</i>    |
| <b>Solubility</b>                                               |                           |
| <b>water:</b>                                                   | <i>Fully miscible.</i>    |
| <b>Partition coefficient n-octanol/water (log value)</b>        | <i>Not determined.</i>    |
| <b>Vapour pressure at 20 °C:</b>                                | <i>23 hPa</i>             |
| <b>Density and/or relative density</b>                          |                           |
| <b>Density at 20 °C:</b>                                        | <i>1 g/cm<sup>3</sup></i> |
| <b>Relative density</b>                                         | <i>Not determined.</i>    |
| <b>Vapour density</b>                                           | <i>Not determined.</i>    |

**9.2 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.*

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## 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

10.1 Reactivity *No further relevant information available.*

## 10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

*No decomposition if used according to specifications.*10.3 Possibility of hazardous reactions *No dangerous reactions known.*10.4 Conditions to avoid *No further relevant information available.*10.5 Incompatible materials: *No further relevant information available.*10.6 Hazardous decomposition products: *No dangerous decomposition products known.*

## SECTION 11: Toxicological information

## 11.1 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/irritation *Based on available data, the classification criteria are not met.*Serious eye damage/irritation *Based on available data, the classification criteria are not met.*Respiratory or skin sensitisation *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.*STOT-single exposure *Based on available data, the classification criteria are not met.*STOT-repeated exposure *Based on available data, the classification criteria are not met.*Aspiration hazard *Based on available data, the classification criteria are not met.*

## 11.2 Information on other hazards

## Endocrine disrupting properties

*None of the ingredients is listed.*

## SECTION 12: Ecological information

## 12.1 Toxicity

Aquatic toxicity: *No further relevant information available.*12.2 Persistence and degradability *No further relevant information available.*12.3 Bioaccumulative potential *No further relevant information available.*12.4 Mobility in soil *No further relevant information available.*

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**12.5 Results of PBT and vPvB assessment**PBT: *Not applicable.*vPvB: *Not applicable.***12.6 Endocrine disrupting properties***The product does not contain substances with endocrine disrupting properties.***12.7 Other adverse effects****Additional ecological information:****General notes:** *Not hazardous for water.***SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation** *Smaller quantities can be disposed of with household waste.***European waste catalogue**16 05 09 | *discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08***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****14.1 UN number or ID number**

ADR, ADN, IMDG, IATA

Void

**14.2 UN proper shipping name**

ADR, ADN, IMDG, IATA

Void

**14.3 Transport hazard class(es)**

ADR, ADN, IMDG, IATA

Class

Void

**14.4 Packing group**

ADR, IMDG, IATA

Void

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

No

**14.6 Special precautions for user***Not applicable.***14.7 Maritime transport in bulk according to IMO instruments***Not applicable.***Transport/Additional information:***Not dangerous according to the above specifications.***UN "Model Regulation":**

Void

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Labelling according to Regulation (EC) No 1272/2008** *Void***Hazard pictograms** *Void***Signal word** *Void***Hazard statements** *Void***Directive 2012/18/EU****Named dangerous substances - ANNEX I** *None of the ingredients is listed.***LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)**CAS: 7789-00-6 | *potassium chromate**Sunset date: 2017-09-21***DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II***None of the ingredients is listed.*

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**REGULATION (EU) 2019/1148****Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))***None of the ingredients is listed.***Annex II - REPORTABLE EXPLOSIVES PRECURSORS***None of the ingredients is listed.***Regulation (EC) No 273/2004 on drug precursors***None of the ingredients is listed.***Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors***None of the ingredients is listed.***15.2 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.***16.3 Recommended restriction of use****Department issuing SDS:** PCC-TWR**Contact:** MSDS.pcc@endress.com**Date of previous version:** 17.05.2021**Version number of previous version:** 4**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**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**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***\* Data compared to the previous version altered.**