

## 1 Identification

### Product identifier

Trade name: **CA80TN Reagent RB**

Article number: *CY80TN\_active*

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](mailto:MSDS.PCC@endress.com)

Emergency telephone number: 001 18000 222 1222

## 2 Hazard(s) identification

### Classification of the substance or mixture



GHS08 Health hazard

*Sensitization - Respiratory 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.*



GHS07

*Skin Irritation 2*

*H315 Causes skin irritation.*

*Eye Irritation 2A*

*H319 Causes serious eye irritation.*

*Sensitization - Skin 1*

*H317 May cause an allergic skin reaction.*

### Label elements

#### GHS label elements

*The product is classified and labeled according to the Globally Harmonized System (GHS).*

#### Hazard pictograms



GHS08

Signal word *Danger*

#### Hazard-determining components of labeling:

*sodium persulphate*

#### Hazard statements

*Causes skin irritation.*

*Causes serious eye irritation.*

*May cause allergy or asthma symptoms or breathing difficulties if inhaled.*

*May cause an allergic skin reaction.*

#### Precautionary statements

*Avoid breathing dust/fume/gas/mist/vapors/spray*

*Wear protective gloves / eye protection / face protection.*

*[In case of inadequate ventilation] wear respiratory protection.*

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If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = \*2

Fire = 0

Reactivity = 0

**Other hazards****Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**3 Composition/information on ingredients****Chemical characterization: Mixtures**

**Description:** Mixture of the substances listed below with nonhazardous additions.

**Dangerous components:**

CAS: 7775-27-1	sodium persulphate Oxidizing Solids 2, H272;  Sensitization - Respiratory 1, H334;  Acute Toxicity - Oral 4, H302; Sensitization - Skin 1, H317	2-6%
CAS: 1310-73-2	Sodium hydroxide Skin Corrosion 1A, H314;  Acute Toxicity - Oral 4, H302	1-2.5%

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

**4 First-aid measures****Description of first aid measures**

**General information:** Immediately remove any clothing soiled by the product.

**After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

**After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**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.

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## 5 Fire-fighting measures

### Extinguishing media

**Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

**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:** Do not allow to enter sewers/ surface or ground 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.

Ensure adequate ventilation.

### Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### Protective Action Criteria for Chemicals

PAC-1:		
CAS: 7775-27-1	sodium persulphate	0.3 mg/m <sup>3</sup>
CAS: 1310-73-2	Sodium hydroxide	0.5 mg/m <sup>3</sup>
PAC-2:		
CAS: 7775-27-1	sodium persulphate	8.2 mg/m <sup>3</sup>
CAS: 1310-73-2	Sodium hydroxide	5 mg/m <sup>3</sup>
PAC-3:		
CAS: 7775-27-1	sodium persulphate	49 mg/m <sup>3</sup>
CAS: 1310-73-2	Sodium hydroxide	50 mg/m <sup>3</sup>

## 7 Handling and storage

### Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**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:** Keep receptacle tightly sealed.

**Storage class:** 8 B

**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 section 7.

### Control parameters

Components with limit values that require monitoring at the workplace:	
CAS: 7775-27-1 sodium persulphate	
TLV	Long-term value: 0.1 mg/m <sup>3</sup> as persulfate

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**CAS: 1310-73-2 Sodium hydroxide**

PEL	Long-term value: 2 mg/m <sup>3</sup>
REL	Ceiling limit value: 2 mg/m <sup>3</sup>
TLV	Ceiling limit value: 2 mg/m <sup>3</sup>

**Additional information:** The lists that were valid during the creation were used as basis.**Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**

Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.  
Only use chemical-protective gloves with CE-labeling of category III.  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

**Material of gloves**

Nitrile rubber, NBR

Natural rubber, NR

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:**

Tightly sealed goggles

**Body protection:** Protective work clothing**9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

Form:	Fluid
Color:	Colorless
Odor:	Odorless
Odor threshold:	Not determined.
pH-value:	Not determined.

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**Change in condition****Melting point/Melting range:***Undetermined.***Boiling point/Boiling range:***100 °C (212 °F) (CAS: 7732-18-5 water)***Flash point:***Not applicable.***Flammability:***Not applicable.***Ignition temperature:***Product is not selfigniting.***Danger of explosion:***Product does not present an explosion hazard.  
Not determined.***Explosion limits:****Lower:***Not determined.***Upper:***Not determined.***Vapor pressure at 20 °C (68 °F):***23 hPa (17.3 mm Hg) (CAS: 7732-18-5 water)***Density at 20 °C (68 °F):***1.011 g/cm<sup>3</sup> (8.437 lbs/gal)***Relative density***Not determined.***Vapor density***Not determined.***Evaporation rate***Not determined.***Solubility in / Miscibility with****Water:***Not miscible or difficult to mix.***Partition coefficient (n-octanol/water):** *Not determined.***Viscosity:****Dynamic:***Not determined.***Kinematic:***Not determined.***Solvent content:****Water:***94.8 %***Solids content:***0.0 %***Other information***No further relevant information available.***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:****LD/LC50 values that are relevant for classification:****CAS: 7775-27-1 sodium persulphate**

Oral	LD50	920 mg/kg (rat)
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**CAS: 1310-73-2 Sodium hydroxide**

Oral	LD50	2,000 mg/kg (rat)
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Inhalative	LC50/4 h	125 mg/l (fish)
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**Primary irritant effect:****on the skin:** *Irritant to skin and mucous membranes.***on the eye:** *Irritating effect.***Sensitization:***Sensitization possible through inhalation.**Sensitization possible through skin contact.***Additional toxicological information:***The product shows the following dangers according to internally approved calculation methods for preparations:**Harmful**Irritant***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:***Water hazard class 1 (Self-assessment): slightly hazardous for water**Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.***Results of PBT and vPvB assessment****PBT:** *Not applicable.***vPvB:** *Not applicable.***Other adverse effects** *No further relevant information available.***13 Disposal considerations****Waste treatment methods****Recommendation:***Must not be disposed of together with household garbage. Do not allow product to reach sewage system.***Uncleaned packagings:****Recommendation:** *Disposal must be made according to official regulations.***14 Transport information****UN-Number****DOT, IMDG, IATA**

UN1824

**UN proper shipping name****DOT, IATA**

Sodium hydroxide solution

**IMDG**

SODIUM HYDROXIDE SOLUTION

**Transport hazard class(es)****DOT****Class**

8 Corrosive substances

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Label 8

IMDG, IATA



**Class** 8 Corrosive substances  
**Label** 8  
**Packing group**  
**DOT, IMDG, IATA** III  
**Environmental hazards:** Not applicable.  
**Special precautions for user** Warning: Corrosive substances  
**Hazard identification number (Kemler code):** 80  
**EMS Number:** F-A,S-B  
**Segregation groups** (SGG18) Alkalis  
**Stowage Category** A  
**Segregation Code** SG35 Stow "separated from" SGG1-acids  
**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.  
**Transport/Additional information:**  
**DOT**  
**Quantity limitations** On passenger aircraft/rail: 5 L  
 On cargo aircraft only: 60 L

IMDG

**Limited quantities (LQ)** 5L  
**Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml  
**UN "Model Regulation":** UN 1824 SODIUM HYDROXIDE SOLUTION, 8, III

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture  
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<b>Section 355 (extremely hazardous substances):</b>	None of the ingredient is listed.
<b>Section 313 (Specific toxic chemical listings):</b>	None of the ingredients is listed.
<b>TSCA (Toxic Substances Control Act):</b>	All components have the value ACTIVE.
<b>Hazardous Air Pollutants</b>	None of the ingredients is listed.
<b>Proposition 65</b>	
<b>Chemicals known to cause cancer:</b>	None of the ingredients is listed.
<b>Chemicals known to cause reproductive toxicity for females:</b>	None of the ingredients is listed.
<b>Chemicals known to cause reproductive toxicity for males:</b>	None of the ingredients is listed.
<b>Chemicals known to cause developmental toxicity:</b>	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***The product is classified and labeled according to the Globally Harmonized System (GHS).***Hazard pictograms**

GHS08

**Signal word** *Danger***Hazard-determining components of labeling:***sodium persulphate***Hazard statements***Causes skin irritation.**Causes serious eye irritation.**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**May cause an allergic skin reaction.***Precautionary statements***Avoid breathing dust/fume/gas/mist/vapors/spray**Wear protective gloves / eye protection / face protection.**[In case of inadequate ventilation] wear respiratory protection.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**Dispose of contents/container in accordance with local/regional/national/international regulations.***National regulations:****Water hazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***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** *09/19/2024 / 2***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**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)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent*

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# Safety Data Sheet

acc. to OSHA HCS

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Version 3

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*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*

*Oxidizing Solids 2: Oxidizing solids – Category 2*

*Acute Toxicity - Oral 4: Acute toxicity – Category 4*

*Skin Corrosion 1A: Skin corrosion/irritation – Category 1A*

*Skin Irritation 2: Skin corrosion/irritation – Category 2*

*Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A*

*Sensitization - Respiratory 1: Respiratory sensitisation – Category 1*

*Sensitization - Skin 1: Skin sensitisation – Category 1*

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