

**SECTION 1: Identification of the substance/mixture and of the company/  
undertaking****1.1 Product identifier****Trade name:** Reagent RN**Synonym:** for total phosphate**Article number:** CY80TP-RN**1.2 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**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 209-117

Fax.: +49 (0)7156 209-222

E-Mail: [conducta\\_service@conducta.endress.com](mailto:conducta_service@conducta.endress.com)**1.4 Emergency telephone number:**

00353 01 809 2166 (from 8 am to 10 pm, 7 days a week)

00353 01 809 2566 (24h)

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

GHS05 corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms** GHS05**Signal word** Danger**Hazard-determining components of labelling:**

sulphuric acid

**Hazard statements**

H314 Causes severe skin burns and eye damage.

**Precautionary statements**

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.


**2.3 Other hazards**

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

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**Results of PBT and vPvB assessment**PBT: *Not applicable.*vPvB: *Not applicable.***SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures**Description: *Mixture of substances listed below with nonhazardous additions.***Dangerous components:**

CAS: 7664-93-9 EINECS: 231-639-5	sulphuric acid	 Skin Corr. 1A, H314	20-40%
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Additional information: *For the wording of the listed hazard phrases refer to section 16.***SECTION 4: First aid measures****4.1 Description of first aid measures**General information: *Immediately remove any clothing soiled by the product.*After inhalation: *In case of unconsciousness place patient stably in side position for transportation.*After skin contact: *Immediately wash with water and soap and rinse thoroughly.*After eye contact: *Rinse opened eye for several minutes under running water. Then consult a doctor.*After swallowing: *Drink plenty of water and provide fresh air. Call for a doctor immediately.***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.***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.***5.2 For safety reasons unsuitable extinguishing agents: no further information****5.3 Special hazards arising from the substance or mixture** *No further relevant information available.***5.4 Advice for firefighters****5.5 Protective equipment:** *No special measures required.***SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures***Wear protective equipment. Keep unprotected persons away.**Wear protective clothing.***6.2 Environmental precautions:***Dilute with plenty of water.**Do not allow to enter sewers/ surface or ground water.***6.3 Methods and material for containment and cleaning up:***Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).**Use neutralising agent.**Dispose contaminated material as waste according to item 13.**Ensure adequate ventilation.***6.4 Reference to other sections***See Section 7 for information on safe handling.**See Section 8 for information on personal protection equipment.*

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See Section 13 for disposal information.

**SECTION 7: Handling and storage****7.1 Handling:****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****7.2 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:** 8 B**7.3 Specific end use(s)** *No further relevant information available.***SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** *No further data; see item 7.***8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****7664-93-9 sulphuric acid**OEL (Ireland) Long-term value: 0.05 mg/m<sup>3</sup>  
IOELVIOELV (EU) Long-term value: 0.05 mg/m<sup>3</sup>**Additional information:** *The lists valid during the making were used as basis.***8.2 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.**Avoid contact with the eyes and skin.***Respiratory protection:** *Not required.***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-labelling 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**Chloroprene rubber, CR**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.*

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Eye protection:



Tightly sealed goggles

Body protection: Protective work clothing

## \* SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

##### Appearance:

Form:	Fluid
Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined.

#### Important information on protection of health and environment, and on safety.

pH-value at 20 °C: &lt;1

#### Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	>100 °C

Flash point: Not applicable.

Flammability (solid, gas): Not applicable.

Decomposition temperature: Not determined.

Auto-ignition temperature: Product is not selfigniting.

Explosive properties: Product does not present an explosion hazard.

#### Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

Vapour pressure at 20 °C: 23 hPa

Density: Not determined.

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not determined.

#### Solubility in / Miscibility with water:

Fully miscible.

Partition coefficient: n-octanol/water: Not determined.

#### Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

#### Solvent content:

Water: 67.3 %

Solids content: 0.0 %

9.2 Other information: No further relevant information available.

## SECTION 10: Stability and reactivity

10.1 Reactivity: No further relevant information available.

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**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 toxicological effects****Acute toxicity** *Based on available data, the classification criteria are not met.***LD/LC50 values relevant for classification:**

Oral	LD50	5,800 mg/kg (Mouse)
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**Primary irritant effect:****Skin corrosion/irritation***Causes severe skin burns and eye damage.***Serious eye damage/irritation***Causes serious eye damage.***Respiratory or skin sensitisation** *Based on available data, the classification criteria are not met.***CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****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.***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.***Additional ecological information:****General notes:***Water hazard class 1 (German Regulation) (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.**Must not reach sewage water or drainage ditch undiluted or unneutralised.**Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.***12.5 Results of PBT and vPvB assessment****PBT:** *Not applicable.***vPvB:** *Not applicable.***12.6 Other adverse effects** *No further relevant information available.***SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation***Must not be disposed together with household garbage. Do not allow product to reach sewage system.*

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European waste catalogue	
16 05 06*	<i>laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals</i>

**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**
**ADR, IMDG, IATA**

UN2796

**14.2 UN proper shipping name**
**ADR**

UN2796 SULPHURIC ACID

**IMDG, IATA**

SULPHURIC ACID

**14.3 Transport hazard class(es)**
**ADR**

**Class**

8 (C1) Corrosive substances.

**Label**

8

**IMDG, IATA**

**Class**

8 Corrosive substances.

**Label**

8

**14.4 Packing group**
**ADR, IMDG, IATA**

II

**14.5 Environmental hazards:**

Not applicable.

**14.6 Special precautions for user**

Warning: Corrosive substances.

**Danger code (Kemler):**

80

**EMS Number:**

F-A,S-B

**Segregation groups**

Acids

**Stowage Category**

B

**14.7 Transport in bulk according to Annex II of**
**Marpol and the IBC Code**

Not applicable.

**Transport/Additional information:**
**ADR**
**Limited quantities (LQ)**

1L

**Excepted quantities (EQ)**

Code: E2

*Maximum net quantity per inner packaging: 30 ml*
*Maximum net quantity per outer packaging: 500 ml*
**Transport category**

2

**Tunnel restriction code**

E

**IMDG**
**Limited quantities (LQ)**

1L

**Excepted quantities (EQ)**

Code: E2

*Maximum net quantity per inner packaging: 30 ml*
*Maximum net quantity per outer packaging: 500 ml*

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**UN "Model Regulation":**

UN 2796 SULPHURIC ACID, 8, II

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## SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**REGULATION (EC) No 1907/2006 ANNEX XVII** *Conditions of restriction: 3*

**National regulations:**

**Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.*

**15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

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## \* 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-TWRC

**Contact:** [MSDS@conducta.endress.com](mailto:MSDS@conducta.endress.com)

**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 européen sur le transport 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)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Skin Corr. 1A: Skin corrosion/irritation – Category 1A*

*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*

**\* Data compared to the previous version altered.**

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