

Product code	Description
CAY246-VxxAAH	CA72TP-A+B Reagent Set for total phosphate blue

Components:

71251096	Reagent TP1, Component 1 for total phosphate
51509012C	Reagent TP2, Component 1 for total phosphate (A+B)
51509014C	Reagent TP3, Component 1 for total phosphate (A+B)
51509015C	Reagent TP3, Component 2 for total phosphate (A+B)
51509017C	Reagent TP3, Component 3 for total phosphate (A+B)

SECTION 1: Identification

Other means of identification

Trade name: Reagent TP1, Component 1

Synonym: *for total phosphate*

Article number: 71251096

CAS Number:

7775-27-1

EC number:

231-892-1

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

Regional representation:

Endress+Hauser Australia Pty Ltd

16 Giffnock Avenue

Macquarie Park, NSW 2113

Australia

Phone: 1300 363 707

Phone: +61 2 8877 7000

Emergency telephone number: *Poison Hotline: 13 11 26*

SECTION 2: Hazard(s) Identification

Classification of the substance or mixture



flame over circle

Oxidising solids - Category 2

H272 May intensify fire; oxidizer.



health hazard

Respiratory sensitisation – Category 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



Acute toxicity - oral – Category 4

H302 Harmful if swallowed.

Skin sensitisation – Category 1

H317 May cause an allergic skin reaction.

Label elements

GHS label elements

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

(Contd. on page 2)

Trade name: Reagent TP1, Component 1

(Contd. of page 1)

Hazard pictograms



GHS03 GHS07 GHS08

Signal word *Danger*

Hazard-determining components of labelling:

sodium persulphate (100 %)

Hazard statements

*May intensify fire; oxidizer.**Harmful if swallowed.**May cause allergy or asthma symptoms or breathing difficulties if inhaled.**May cause an allergic skin reaction.*

Precautionary statements

*Keep away from heat/sparks/open flames/hot surfaces. No smoking.**Keep/Store away from clothing/combustible materials.**Avoid breathing dust/fume/gas/mist/vapours/spray.**Wear respiratory protection.**Dispose of contents/container in accordance with local/regional/national/international regulations.*

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.*

SECTION 3: Composition and Information on Ingredients

Substances

CAS No. Description

CAS: 7775-27-1 sodium persulphate

Identification number(s)

EC number: 231-892-1

SECTION 4: First Aid Measures

Description of first aid measures

General information:

*Immediately remove any clothing soiled by the product.**Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.*

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.**After swallowing: Call for a doctor immediately.*

Most important symptoms and effects, both acute and delayed

No further relevant information available.

(Contd. on page 3)

— AUS —

Trade name: Reagent TP1, Component 1

(Contd. of page 2)

Indication of any immediate medical attention and special treatment needed*No further relevant information available.***SECTION 5: Fire Fighting 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:** *Do not allow to enter sewers/ surface or ground water.***Methods and material for containment and cleaning up:***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.***SECTION 7: Handling and Storage****Precautions for safe handling** *Ensure good ventilation/exhaustion at the workplace.***Information about fire - and explosion protection:** *No special measures required.***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:** *5.1 B***Specific end use(s)** *No further relevant information available.***SECTION 8: Exposure controls and personal protection****Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 7775-27-1 sodium persulphate**

WES (Australia)	Peak limitation: 0.01 mg/m ³ Sen
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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.**Immediately remove all soiled and contaminated clothing**Wash hands before breaks and at the end of work.*

(Contd. on page 4)

Trade name: Reagent TP1, Component 1

(Contd. of page 3)

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection

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

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.

Nitrile rubber, NBR

Natural rubber, NR

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.

Body protection: *Protective work clothing*

* **SECTION 9: Physical and Chemical Properties****Information on basic physical and chemical properties****General Information****Physical state***Solid***Colour:***Colourless***Odour:***Odourless***Odour threshold:***Not determined.***Melting point/freezing point:***Undetermined.***Boiling point or initial boiling point and boiling range***Undetermined.***Flammability***Product is not flammable.***Lower and upper explosion limit****Lower:***Not determined.***Upper:***Not determined.***Flash point:***Not applicable.***Decomposition temperature:***Not determined.***pH***Slightly acidic***Viscosity:****Kinematic viscosity***Not applicable.***Dynamic:***Not applicable.***Solubility****water:***Easily soluble.***Partition coefficient n-octanol/water (log value)***Not determined.***Vapour pressure:***Not applicable.***Density and/or relative density****Density at 20 °C:***1.1 g/cm³***Relative density***Not determined.***Vapour density***Not applicable.***Particle characteristics***Not determined.*

(Contd. on page 5)

Trade name: Reagent TP1, Component 1

(Contd. of page 4)

Other information

Appearance:

Form:

Crystalline powder

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

Ignition temperature:

Not determined.

Explosive properties:

Product does not present an explosion hazard.

Not determined.

Solids content:

100.0 %

Molecular weight

238.09 g/mol

Change in condition

Evaporation rate

Not applicable.

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

May intensify fire; oxidizer.

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 Harmful if swallowed.

LD/LC50 values relevant for classification:

CAS: 7775-27-1 sodium persulphate

Oral LD50 920 mg/kg (rat)

Respiratory or skin sensitisation

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

May cause an allergic skin reaction.

(Contd. on page 6)

Trade name: Reagent TP1, Component 1

(Contd. of page 5)

Information on other hazards

Endocrine disrupting properties

Substance is not 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:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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.

SECTION 14: Transport information

UN number or ID number

IMDG, IATA

UN1505

UN proper shipping name

ADG

UN1505 SODIUM PERSULPHATE

IMDG

SODIUM PERSULPHATE

IATA

Sodium persulphate

Transport hazard class(es)

ADG



Class

5.1 (O2) Oxidising substances.

Label

5.1

IMDG, IATA



Class

5.1 Oxidising substances.

Label

5.1

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Safety Data Sheet

according to WHS Regulations

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Revision: 20.09.2024

Trade name: Reagent TP1, Component 1

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Packing group

ADG, IMDG, IATA

III

Environmental hazards:

Not applicable.

Special precautions for user

Warning: Oxidising substances.

Hazard identification number (Kemler code): 50

EMS Number:

F-A,S-Q

Stowage Category

A

Segregation Code

SG39 Stow "separated from" SGG2-ammonium compounds other than AMMONIUM PERSULPHATE (UN 1444).

SG49 Stow "separated from" SGG6-cyanides

Maritime transport in bulk according to IMO instruments

Not applicable.

Transport/Additional information:

ADG

Limited quantities (LQ)

5 kg

Transport category

3

Tunnel restriction code

E

IMDG

Limited quantities (LQ)

5 kg

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

UN "Model Regulation":

UN 1505 SODIUM PERSULPHATE, 5.1, III

SECTION 15: Regulatory information

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

Australian Inventory of Industrial Chemicals

Substance is listed.

Standard for the Uniform Scheduling of Medicines and Poisons

Substance is not listed.

Australia: Priority Existing Chemicals

Substance is listed.

GHS label elements

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

Hazard pictograms



GHS03 GHS07 GHS08

Signal word *Danger*

Hazard-determining components of labelling:

sodium persulphate (100 %)

Hazard statements

May intensify fire; oxidizer.

Harmful if swallowed.

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

May cause an allergic skin reaction.

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Keep/Store away from clothing/combustible materials.

Avoid breathing dust/fume/gas/mist/vapours/spray.

(Contd. on page 8)

AUS

Trade name: Reagent TP1, Component 1

(Contd. of page 7)

*Wear respiratory protection.**Dispose of contents/container in accordance with local/regional/national/international regulations.***Directive 2012/18/EU****Named dangerous substances - ANNEX I** *Substance is not listed.***Seveso category P8** *OXIDISING LIQUIDS AND SOLIDS***Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t**National regulations:****Waterhazard class:** *Water hazard class 1 (Assessment by list): slightly hazardous for water.***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**Contact:** MSDS.pcc@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 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**EINECS: European Inventory of Existing Commercial 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**Oxidising solids - Category 2: Oxidizing solids – Category 2**Acute toxicity - oral – Category 4: Acute toxicity – Category 4**Respiratory sensitisation – Category 1: Respiratory sensitisation – Category 1**Skin sensitisation – Category 1: Skin sensitisation – Category 1**** Data compared to the previous version altered.**

SECTION 1: Identification

Other means of identification

Trade name: Reagent TP2, Component 1

Synonym: *for total phosphate (A+B)*

Article number: 51509012C

CAS Number:

50-81-7

EC number:

200-066-2

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*

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

Regional representation:

Endress+Hauser Australia Pty Ltd

16 Giffnock Avenue

Macquarie Park, NSW 2113

Australia

Phone: 1300 363 707

Phone: +61 2 8877 7000

Emergency telephone number: *Poison Hotline: 13 11 26*

SECTION 2: Hazard(s) Identification

Classification of the substance or mixture

The substance is not classified, according to the Globally Harmonised System (GHS).

Label elements

GHS label elements *Void*

Hazard pictograms *Void*

Signal word *Void*

Hazard statements *Void*

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.*

SECTION 3: Composition and Information on Ingredients

Substances

CAS No. Description

CAS: 50-81-7 L (+) - ascorbic acid

(Contd. on page 2)

— AUS —

Trade name: Reagent TP2, Component 1

(Contd. of page 1)

Identification number(s)**EC number:** 200-066-2

SECTION 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.***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: Fire Fighting 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:** *Do not allow to enter sewers/ surface or ground water.***Methods and material for containment and cleaning up:** *Pick up mechanically.***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.*

SECTION 7: Handling and Storage

Precautions for safe handling *No special measures required.***Information about fire - and explosion protection:** *No special measures required.***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:** 11**Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls and personal protection

Control parameters**Ingredients with limit values that require monitoring at the workplace:** *Not required.*

(Contd. on page 3)

— AUS —

Trade name: Reagent TP2, Component 1

(Contd. of page 2)

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:***The usual precautionary measures are to be adhered to when handling chemicals.***Respiratory protection:** *Not required.***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.***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****Information on basic physical and chemical properties****General Information****Physical state***Solid***Colour:***Whitish***Odour:***Odourless***Odour threshold:***Not determined.***Melting point/freezing point:***191 °C***Boiling point or initial boiling point and boiling range***Undetermined.***Flammability***Product is not flammable.***Lower and upper explosion limit****Lower:***Not determined.***Upper:***Not determined.***Flash point:***Not applicable.***Decomposition temperature:***Not determined.***pH***Slightly acidic***Viscosity:****Kinematic viscosity***Not applicable.***Dynamic:***Not applicable.***Solubility****water at 20 °C:***333 g/l***Partition coefficient n-octanol/water (log value)***Not determined.***Vapour pressure:***Not applicable.***Density and/or relative density****Density at 20 °C:***0.95 g/cm³***Relative density***Not determined.***Vapour density***Not applicable.***Particle characteristics***Not determined.***Other information****Appearance:****Form:***Crystalline powder***Important information on protection of health and environment, and on safety.****Ignition temperature:***Not determined.*

(Contd. on page 4)

Trade name: Reagent TP2, Component 1

(Contd. of page 3)

Explosive properties:*Product does not present an explosion hazard.
Not determined.***Solids content:***100.0 %***Molecular weight***176.13 g/mol***Change in condition****Evaporation rate***Not applicable.***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****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.***LD/LC50 values relevant for classification:****CAS: 50-81-7 L (+) - ascorbic acid**

Oral | LD50 | 11,900 mg/kg (rat)

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.*

(Contd. on page 5)

Trade name: Reagent TP2, Component 1

(Contd. of page 4)

Information on other hazards

Endocrine disrupting properties

Substance is not 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:

*Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water**Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*

SECTION 13: Disposal considerations

Waste treatment methods

Recommendation *Smaller quantities can be disposed of with household waste.*

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

UN number or ID number

ADN, IMDG, IATA

Void

UN proper shipping name

ADG, ADN, IMDG, IATA

Void

Transport hazard class(es)

ADG, ADN, IMDG, IATA

Class

Void

Packing group

ADG, IMDG, IATA

Void

Environmental hazards:

Marine pollutant:

No

Special precautions for user

Not applicable.

Maritime transport in bulk according to IMO instruments

Not applicable.

Transport/Additional information:

Not dangerous according to the above specifications.

UN "Model Regulation":

Void

(Contd. on page 6)

— AUS —

Trade name: Reagent TP2, Component 1

(Contd. of page 5)

SECTION 15: Regulatory information

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

Australian Inventory of Industrial Chemicals*Substance is listed.***Standard for the Uniform Scheduling of Medicines and Poisons***Substance is not listed.***Australia: Priority Existing Chemicals***Substance is not listed.*GHS label elements *Void*Hazard pictograms *Void*Signal word *Void*Hazard statements *Void*

Directive 2012/18/EU

Named dangerous substances - ANNEX I *Substance is not listed.*

National regulations:

Waterhazard class: *Water hazard class 1 (Assessment by list): slightly hazardous for water.*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

Contact: MSDS.pcc@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 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

EINECS: European Inventory of Existing Commercial 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

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

SECTION 1: Identification

Other means of identification

Trade name: Reagent TP3, Component 1

Synonym: *for total phosphate (A+B)*

Article number: 51509014C

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

Regional representation:
Endress+Hauser Australia Pty Ltd
16 Giffnock Avenue
Macquarie Park, NSW 2113
Australia

Phone: 1300 363 707
Phone: +61 2 8877 7000

Emergency telephone number: *Poison Hotline: 13 11 26*

SECTION 2: Hazard(s) Identification

Classification of the substance or mixture



corrosion

Skin corrosion/irritation – Category 1A H314 Causes severe skin burns and eye damage.

Eye damage/irritation – Category 1 H318 Causes serious eye damage.

Label elements

GHS label elements

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

Hazard pictograms



GHS05

Signal word *Danger*

Hazard-determining components of labelling:

sulphuric acid (30-50 %)

Hazard statements

Causes severe skin burns and eye damage.

Precautionary statements

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

(Contd. on page 2)

Trade name: Reagent TP3, Component 1

(Contd. of page 1)

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

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

Store locked up.

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

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

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition and Information on Ingredients**Mixtures**

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 7664-93-9	sulphuric acid	 Skin corrosion/irritation – Category 1A, H314	30-50%
EINECS: 231-639-5			

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

SECTION 4: First Aid Measures**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.

Immediately rinse with water.

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.

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: Fire Fighting 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

During heating or in case of fire poisonous gases are produced.

Advice for firefighters No further relevant information available.

Protective equipment: Mount respiratory protective device.

SECTION 6: Accidental Release Measures**Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

Environmental precautions:

Dilute with plenty of water.

(Contd. on page 3)

Trade name: Reagent TP3, Component 1

(Contd. of page 2)

*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).**Use neutralising agent.**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.***SECTION 7: Handling and Storage****Precautions for safe handling***When diluting always pour product into water and not vice versa.**Ensure good ventilation/exhaustion at the workplace.**Prevent formation of aerosols.***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:** *8 B***Specific end use(s)** *No further relevant information available.***SECTION 8: Exposure controls and personal protection****Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 7664-93-9 sulphuric acid**

WES (Australia)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³
IOELV (EU)	Long-term value: 0.05 mg/m ³

DNELs**CAS: 7664-93-9 sulphuric acid**

Inhalative	DNEL short-term	0.1 mg/m ³ (worker) (local effects)
	DNEL long-term	0.05 mg/m ³ (worker) (local effects)

PNECs**CAS: 7664-93-9 sulphuric acid**

PNEC	8.8 mg/L (Wastewater treatment plant) 0.25 mg/L (sea water)
PNEC	2.5 µg/L (fresh water)
PNEC	2 µg/kg (marine sediment) 2 µg/kg (freshwater sediment)

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.**Immediately remove all soiled and contaminated clothing**Wash hands before breaks and at the end of work.*

(Contd. on page 4)

Trade name: Reagent TP3, Component 1

(Contd. of page 3)

*Avoid contact with the eyes.**Avoid contact with the eyes and skin.***Respiratory protection:***In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.***Hand protection***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.***Eyeface protection***Tightly sealed goggles***Body protection:** *Protective work clothing***SECTION 9: Physical and Chemical Properties****Information on basic physical and chemical properties****General Information****Physical state***Fluid***Colour:***Colourless***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.***pH at 20 °C***<1***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*

(Contd. on page 5)

Trade name: Reagent TP3, Component 1

(Contd. of page 4)

Density and/or relative density**Density at 20 °C:**1.296 g/cm³**Relative density**

Not determined.

Vapour density

Not determined.

Particle characteristics

Not applicable.

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:**

50.0 %

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

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.**Skin corrosion/irritation** Causes severe skin burns and eye damage.**Serious eye damage/irritation** Causes serious eye damage.

(Contd. on page 6)

Trade name: Reagent TP3, Component 1

(Contd. of page 5)

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:

*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.*

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.***Recommended cleansing agents:** *Water, if necessary together with cleansing agents.*

* SECTION 14: Transport information

UN number or ID number

IMDG, IATA

UN2796

UN proper shipping name

ADG

UN2796 SULPHURIC ACID

IMDG

SULPHURIC ACID

IATA

Sulphuric acid

Transport hazard class(es)

ADG



Class

8 (C1) Corrosive substances.

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— AUS —

Safety Data Sheet

according to WHS Regulations

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Date of issue: 20.09.2024

Version 10 (replaces version 9)

Revision: 20.09.2024

Trade name: Reagent TP3, Component 1

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Label

8

IMDG, IATA



Class

8 Corrosive substances.

Label

8

Packing group

ADG, IMDG, IATA

II

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

(SGG1a) Strong acids

Stowage Category

B

Segregation Code

SG36 Stow "separated from" SGG18-alkalis.

SG49 Stow "separated from" SGG6-cyanides

Maritime transport in bulk according to IMO instruments

Not applicable.

Transport/Additional information:

ADG

Limited quantities (LQ)

1L

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

UN "Model Regulation":

UN 2796 SULPHURIC ACID, 8, II

SECTION 15: Regulatory information

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

Australian Inventory of Industrial Chemicals

All ingredients are listed.

Standard for the Uniform Scheduling of Medicines and Poisons

CAS: 7664-93-9 | sulphuric acid

S6

Australia: Priority Existing Chemicals

None of the ingredients is listed.

GHS label elements

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

Hazard pictograms



GHS05

Signal word *Danger*

Hazard-determining components of labelling:

sulphuric acid (30-50 %)

(Contd. on page 8)

AUS

Trade name: Reagent TP3, Component 1

(Contd. of page 7)

Hazard statements*Causes severe skin burns and eye damage.***Precautionary statements***IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**Immediately call a POISON CENTER/doctor.**Specific treatment (see on this label).**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:****Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***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***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**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)**DNEL: Derived No-Effect Level (REACH)**PNEC: Predicted No-Effect Concentration (REACH)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Skin corrosion/irritation – Category 1A: Skin corrosion/irritation – Category 1A**Eye damage/irritation – Category 1: Serious eye damage/eye irritation – Category 1**** Data compared to the previous version altered.**

SECTION 1: Identification

Other means of identification

Trade name: Reagent TP3, Component 2

Synonym: *for total phosphate (A+B)*

Article number: 51509015C

CAS Number:

12054-85-2

EC number:

234-722-4

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

Regional representation:

Endress+Hauser Australia Pty Ltd

16 Giffnock Avenue

Macquarie Park, NSW 2113

Australia

Phone: 1300 363 707

Phone: +61 2 8877 7000

Emergency telephone number: *Poison Hotline: 13 11 26*

SECTION 2: Hazard(s) Identification

Classification of the substance or mixture

The substance is not classified, according to the Globally Harmonised System (GHS).

Label elements

GHS label elements *Void*

Hazard pictograms *Void*

Signal word *Void*

Hazard statements *Void*

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.*

SECTION 3: Composition and Information on Ingredients

Substances

CAS No. Description

CAS: 12054-85-2 Ammonium heptamolybdate tetrahydrate

(Contd. on page 2)

— AUS —

Trade name: Reagent TP3, Component 2

(Contd. of page 1)

Identification number(s)**EC number:** 234-722-4

SECTION 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.***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: Fire Fighting 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:** *Do not allow to enter sewers/ surface or ground water.***Methods and material for containment and cleaning up:** *Pick up mechanically.***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.*

SECTION 7: Handling and Storage

Precautions for safe handling *No special measures required.***Information about fire - and explosion protection:** *No special measures required.***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:** 11**Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls and personal protection

Control parameters**Ingredients with limit values that require monitoring at the workplace:** *Not required.*

(Contd. on page 3)

Trade name: Reagent TP3, Component 2

(Contd. of page 2)

DNELs	
CAS: 12054-85-2 Ammonium heptamolybdate tetrahydrate	
Inhalative	DNEL long-term 13.36 mg/m ³ (worker) (systemic effect)
PNECs	
CAS: 12054-85-2 Ammonium heptamolybdate tetrahydrate	
PNEC	37.61 mg/L (Wastewater treatment plant)
	22.01 mg/L (fresh water)
	3.94 mg/L (sea water)
PNEC	4,090 mg/kg (marine sediment)
	39,170 mg/kg (freshwater sediment)
	16.46 mg/kg /dw (soil)

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:

The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection: Not required.

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.

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****Information on basic physical and chemical properties****General Information**

Physical state	Solid
Colour:	Light yellow
Odour:	Odourless
Odour threshold:	Not determined.
Melting point/freezing point:	90 °C
Boiling point or initial boiling point and boiling range	Undetermined.
Flammability	Product is not flammable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH	5.3
Viscosity:	
Kinematic viscosity	Not applicable.
Dynamic:	Not applicable.
Solubility	
water at 20 °C:	400 g/l
Partition coefficient n-octanol/water (log value)	Not determined.

(Contd. on page 4)

Trade name: Reagent TP3, Component 2

(Contd. of page 3)

Vapour pressure:	Not applicable.
Density and/or relative density	
Density at 20 °C:	2.498 g/cm ³
Relative density	Not determined.
Bulk density:	800 kg/m ³
Vapour density	Not applicable.
Particle characteristics	Not determined.
Other information	
Appearance:	
Form:	Crystalline powder
Important information on protection of health and environment, and on safety.	
Ignition temperature:	Not determined.
Explosive properties:	Product does not present an explosion hazard.
	Not determined.
Solids content:	100.0 %
Molecular weight	1,235.86 g/mol
Change in condition	
Evaporation rate	Not applicable.
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

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.

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.

(Contd. on page 5)

Trade name: Reagent TP3, Component 2

(Contd. of page 4)

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.**Information on other hazards****Endocrine disrupting properties**

Substance is not 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:**

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.

SECTION 13: Disposal considerations**Waste treatment methods****Recommendation** Smaller quantities can be disposed of with household waste.**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****UN number or ID number**

ADN, IMDG, IATA Void

UN proper shipping name

ADG, ADN, IMDG, IATA Void

Transport hazard class(es)

ADG, ADN, IMDG, IATA

Class Void

Packing group

ADG, IMDG, IATA Void

Environmental hazards:**Marine pollutant:** No**Special precautions for user** Not applicable.**Maritime transport in bulk according to IMO instruments** Not applicable.**Transport/Additional information:** Not dangerous according to the above specifications.

(Contd. on page 6)

Trade name: Reagent TP3, Component 2

UN "Model Regulation":

Void

(Contd. of page 5)

SECTION 15: Regulatory information

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

Australian Inventory of Industrial Chemicals*Substance is listed.***Standard for the Uniform Scheduling of Medicines and Poisons***Substance is not listed.***Australia: Priority Existing Chemicals***Substance is not listed.***GHS label elements** *Void***Hazard pictograms** *Void***Signal word** *Void***Hazard statements** *Void***Directive 2012/18/EU****Named dangerous substances - ANNEX I** *Substance is not listed.***National regulations:****Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***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***Contact:** *MSDS.pcc@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 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**EINECS: European Inventory of Existing Commercial Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**DNEL: Derived No-Effect Level (REACH)**PNEC: Predicted No-Effect Concentration (REACH)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**** Data compared to the previous version altered.**

SECTION 1: Identification

Other means of identification

Trade name: Reagent TP3, Component 3

Synonym: *for total phosphate (A+B)*

Article number: 51509017C

CAS Number:

28300-74-5

EC number:

234-293-3

Index number:

050-003-00-9

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

Regional representation:

Endress+Hauser Australia Pty Ltd

16 Giffnock Avenue

Macquarie Park, NSW 2113

Australia

Phone: 1300 363 707

Phone: +61 2 8877 7000

Emergency telephone number: *Poison Hotline: 13 11 26*

SECTION 2: Hazard(s) Identification

Classification of the substance or mixture



Acute toxicity - oral – Category 4 H302 Harmful if swallowed.

Acute toxicity - inhalation – Category 4 H332 Harmful if inhaled.

Label elements

GHS label elements

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

Hazard pictograms



GHS07

Signal word *Warning*

(Contd. on page 2)

— AUS —

Trade name: Reagent TP3, Component 3

(Contd. of page 1)

Hazard-determining components of labelling:*antimony potassium tartrate (100 %)***Hazard statements***Harmful if swallowed.**Harmful if inhaled.***Precautionary statements***Avoid breathing dust/fume/gas/mist/vapours/spray.**IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.**Rinse mouth.**IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.**Dispose of contents/container in accordance with local/regional/national/international regulations.***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.***SECTION 3: Composition and Information on Ingredients****Substances****CAS No. Description***CAS: 28300-74-5 antimony potassium tartrate***Identification number(s)****EC number:** *234-293-3***Index number:** *050-003-00-9***SECTION 4: First Aid Measures****Description of first aid measures****General information:***Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.***After inhalation:***Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.**In case of unconsciousness place patient stably in side position for transportation.***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:** *Call for a doctor immediately.***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: Fire Fighting 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.*

(Contd. on page 3)

Trade name: Reagent TP3, Component 3

(Contd. of page 2)

Protective equipment: *Mount respiratory protective device.***SECTION 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:***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.***SECTION 7: Handling and Storage****Precautions for safe handling***Thorough dedusting.**Ensure good ventilation/exhaustion at the workplace.***Information about fire - and explosion protection:** *No special measures required.***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 C**Specific end use(s)** *No further relevant information available.***SECTION 8: Exposure controls and personal protection****Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 28300-74-5 antimony potassium tartrate**

WES (Australia)	Long-term value: 0.5 mg/m ³ as Sb
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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.***Respiratory protection:***In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.***Hand protection***To avoid skin problems reduce the wearing of gloves to the required minimum.**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.**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.*

(Contd. on page 4)

Trade name: Reagent TP3, Component 3

(Contd. of page 3)

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.

Body protection: Protective work clothing

* **SECTION 9: Physical and Chemical Properties****Information on basic physical and chemical properties****General Information****Physical state**

Solid

Colour:

White

Odour:

Unpleasant

Odour threshold:

Not determined.

Melting point/freezing point:

Undetermined.

Boiling point or initial boiling point and boiling range

Undetermined.

Flammability

Product is not flammable.

Lower and upper explosion limit**Lower:**

Not determined.

Upper:

Not determined.

Flash point:

Not applicable.

Decomposition temperature:

Not determined.

pH

Not applicable.

Viscosity:**Kinematic viscosity**

Not applicable.

Dynamic:

Not applicable.

Solubility**water at 20 °C:**

59 g/l

Partition coefficient n-octanol/water (log value)

Not determined.

Vapour pressure:

Not applicable.

Density and/or relative density**Density at 20 °C:**2.6 g/cm³**Relative density**

Not determined.

Vapour density

Not applicable.

Particle characteristics

Not determined.

Other information**Appearance:****Form:**

Powder

Important information on protection of health and environment, and on safety.**Ignition temperature:**

Not determined.

Explosive properties:

Product does not present an explosion hazard.

Not determined.

Solids content:

100.0 %

Molecular weight

333.93 g/mol

Change in condition**Evaporation rate**

Not applicable.

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

(Contd. on page 5)

Trade name: Reagent TP3, Component 3

(Contd. of page 4)

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

Harmful if swallowed.

Harmful if inhaled.

LD/LC50 values relevant for classification:**CAS: 28300-74-5 antimony potassium tartrate**

Oral LD50 115 mg/kg (rat)

Information on other hazards**Endocrine disrupting properties**

Substance is not listed.

SECTION 12: Ecological Information

Toxicity**Aquatic toxicity:****CAS: 28300-74-5 antimony potassium tartrate**

EC50[48h] 5 mg/l (crustacean)

EC50[96h] 37 mg/l (fish)

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:**

Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water

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Trade name: Reagent TP3, Component 3

(Contd. of page 5)

Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.

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.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

UN number or ID number

UN1551

IMDG, IATA

UN proper shipping name

ADG

UN1551 ANTIMONY POTASSIUM TARTRATE
ANTIMONY POTASSIUM TARTRATE, MARINE
POLLUTANT

IMDG

IATA

Antimony potassium tartrate

Transport hazard class(es)

ADG



Class

6.1 (T5) Toxic substances.

Label

6.1

IMDG



Class

6.1 Toxic substances.

Label

6.1

IATA



Class

6.1 Toxic substances.

Label

6.1

Packing group

ADG, IMDG, IATA

III

Environmental hazards:

Marine pollutant:

Symbol (fish and tree)

Special marking (ADG):

Symbol (fish and tree)

Special precautions for user

Warning: Toxic substances.

Hazard identification number (Kemler code):

60

EMS Number:

F-A,S-A

Stowage Category

A

Maritime transport in bulk according to IMO instruments

Not applicable.

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Safety Data Sheet

according to WHS Regulations

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Version 8 (replaces version 7)

Revision: 20.09.2024

Trade name: Reagent TP3, Component 3

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Transport/Additional information:

ADG

Limited quantities (LQ) 5 kg

Transport category 2

Tunnel restriction code E

IMDG

Limited quantities (LQ) 5 kg

Excepted quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

UN "Model Regulation": UN 1551 ANTIMONY POTASSIUM TARTRATE, 6.1, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

Australian Inventory of Industrial Chemicals

Substance is listed.

Standard for the Uniform Scheduling of Medicines and Poisons

Substance is not listed.

Australia: Priority Existing Chemicals

Substance is not listed.

GHS label elements

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

Hazard pictograms



GHS07

Signal word *Warning*

Hazard-determining components of labelling:

antimony potassium tartrate (100 %)

Hazard statements

Harmful if swallowed.

Harmful if inhaled.

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapours/spray.

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

Rinse mouth.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I Substance is not listed.

Seveso category E2 Hazardous to the Aquatic Environment

Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

National regulations:

Waterhazard class: Water hazard class 3 (Assessment by list): extremely hazardous for water.

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

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Trade name: Reagent TP3, Component 3

(Contd. of page 7)

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

Contact: MSDS.pcc@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 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

EINECS: European Inventory of Existing Commercial 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

Acute toxicity - oral – Category 4: Acute toxicity – Category 4

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