

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 03.07.2018

Version number 6

Revision: 03.07.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Product name:** PO4-1 TP
- **Catalog number:** 251410
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation:** Reagent for water analysis
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier:**
Xylem Analytics Germany GmbH
WTW
Dr.-Karl-Slevogt-Straße 1
82362 Weilheim
Germany
Tel. +49 881 183-0
- **Informing department:** E-Mail: Info.WTW@Xyleminc.com
- **1.4 Emergency telephone number:** Chemtrec (USA & Canada) 800-424-9300 (INTERNATIONAL) 001 703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS06 skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



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



GHS06

- **Signal word** Danger
- **Hazard-determining components of labelling:**
dipotassium disulfate
- **Hazard statements**
H331 Toxic if inhaled.
H314 Causes severe skin burns and eye damage.
- **Precautionary statements**
P261 Avoid breathing dust.
P280 Wear protective gloves/protective clothing/eye protection.
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.

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P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.

• **2.3 Other hazards** No further relevant information available.

• **Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

SECTION 3: Composition/information on ingredients

• **3.2 Mixtures**

• **Description:** Mixture of organic and inorganic compounds

• **Dangerous components:**

CAS: 7790-62-7 EINECS: 232-216-8	dipotassium disulfate ⚠ Acute Tox. 3, H331; ⚠ Skin Corr. 1A, H314; Eye Dam. 1, H318	70-80%
CAS: 28300-74-5 EINECS: 234-293-3 Index No: 051-003-00-9	potassium antimony(III) oxide tartrate trihydrate ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	≤ 0.1%

• **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** Instantly remove any clothing soiled by the product.

• **After inhalation** Supply fresh air or oxygen; call for doctor.

• **After skin contact**

Instantly rinse with water.

Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.

• **After eye contact**

Rinse opened eye for several minutes (at least 15 min) under running water.

Call a doctor immediately.

• **After swallowing**

Rinse out mouth and then drink 1-2 glasses of water.

Do not induce vomiting; instantly call for medical help.

• **4.2 Most important symptoms and effects, both acute and delayed:**

burns

after inhalation:

coughing

breathing difficulty

absorption

after absorption of large amounts:

sickness

vomiting

gastric or intestinal trouble

drowsiness

dizziness

• **Danger**

Danger of gastric perforation.

Danger of pulmonary oedema.

• **4.3 Indication of any immediate medical attention and special treatment needed:**

If swallowed or in case of vomiting, danger of entering the lungs

Subsequent observation for pneumonia and pulmonary oedema

SECTION 5: Firefighting measures

• **5.1 Extinguishing media**

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

• **5.2 Special hazards arising from the substance or mixture**

The product is not combustible.

Formation of toxic gases is possible during heating or in case of fire.

Sulphur oxides (SOx)

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Dipotassium oxide

Carbon monoxide (CO) and carbon dioxide (CO₂)

- **5.3 Advice for firefighters**

- **Protective equipment:**

Wear self-contained breathing apparatus.

Wear full protective suit.

- **Additional information**

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Ambient fire may liberate hazardous vapours.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

- **Advice for non-emergency personnel:**

Wear protective equipment. Keep unprotected persons away.

Avoid substance contact.

Ensure adequate ventilation

Use breathing protection against the effects of fumes/dust/aerosol.

- **Advice for emergency responders:** Protective equipment: see section 8

- **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.

- **6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

Collect mechanically.

Dispose of contaminated material as waste according to item 13.

- **6.4 Reference to other sections**

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

- **Advice on safe handling:**

Open and handle container with care.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

- **Hygiene measures:**

Do not inhale dust / smoke / mist.

Do not get in eyes, on skin, or on clothing.

Take off immediately all contaminated clothing.

Wash hands during breaks and at the end of the work.

Do not eat, drink or smoke when using this product.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage**

- **Requirements to be met by storerooms and containers:** Store in cool location.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:**

Store in a locked cabinet or with access restricted to technical experts or their assistants.

Protect from heat and direct sunlight.

Protect from the effects of light.

Store under dry conditions.

Protect from humidity and keep away from water.

- **Recommended storage temperature:** 20°C +/- 5°C

- **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

CAS: 28300-74-5 potassium antimony(III) oxide tartrate trihydrate ($\leq 0.1\%$)

WEL (Great Britain) Long-term value: 0.5 mg/m³

as Sb

OEL (Sweden) Long-term value: 0.25 mg/m³

as Sb; inhalerbart damm

· Recommended monitoring procedures:

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

· **Additional information:** The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

· Engineering measures:

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See item 7.

· Personal protective equipment

· **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.

· **Recommended filter device for short term use:** Filter P3

· Protection of hands:

Protective gloves.

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

· Material of gloves

nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

· Penetration time of glove material

Value for the permeation: Level = 1 (< 10 min)

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 safety glasses.

· **Body protection:** Acid resistant protective clothing

· **Limitation and supervision of exposure into the environment:** No further relevant information available.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· Appearance:

Form / Physical state: Powder

Colour: White

· **Odour:** Odourless

· **Odour threshold:** Not applicable

· **pH-value (31.3 g/l) at 20°C:** 1.2

· **Melting point/Freezing point:** Not determined

· **Initial boiling point and boiling range:** Not determined

· **Flash point:** Not applicable

· **Flammability (solid, gas):** The product is not combustible.

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not self-igniting.

· **Explosive properties:** Product is not explosive.

· Flammability or explosive limits:

Lower: Not applicable

Upper: Not applicable

· **Oxidising properties:** none

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· Vapour pressure:	Not applicable.
· Density at 20°C:	2.38 g/cm ³
· Relative density:	Not determined.
· Vapour density:	Not applicable.
· Evaporation rate:	Not applicable.
· Solubility(ies):	
Water:	Soluble
· Partition coefficient: n-octanol/water:	Not applicable.
· Viscosity:	Not applicable.
· dynamic:	Not applicable.
· kinematic:	Not applicable.
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	100.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see section 10.3
- **10.2 Chemical stability**
Stable at ambient temperature (room temperature).
sensitive to moisture
sensitivity to light
sensitive to air
- **10.3 Possibility of hazardous reactions** Aqueous solution reacts acidic.
- **10.4 Conditions to avoid** Strong heating (decomposition)
- **10.5 Incompatible materials:** metals
- **10.6 Hazardous decomposition products:** see section 5

* SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Classification according to calculation procedure:
Toxic if inhaled.

· **Acute toxicity estimate (ATE_(MIX)) - Calculation method:**

Inhalative	CLP ATE _(MIX)	0.7 mg/l/4h (dust)
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· **LD/LC50 values that are relevant for classification:**

CAS: 7790-62-7 dipotassium disulfate

Oral	LD50	2500 mg/kg (ATE) (Read across 7664-93-9: LD ₅₀ (rat) = 2140 mg/kg, ECHA)
Inhalative	LC50	0.5 mg/l/4h (ATE) (Aerosol) (Read across 7664-93-9: LD ₅₀ (rat, 4h) = ~ 850 mg/m ³ , ECHA)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
Risk of blindness!
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** The following statements refer to the mixture:
- **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 (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.

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- **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

SECTION 12: Ecological information

- **12.1 Toxicity**
 - **Aquatic toxicity:** No further relevant information available.
 - **Bacterial toxicity:** sulphates toxic > 2.5 g/l
 - **Other information:**
Toxic for fish:
sulphates > 7 g/l
molybdenum compounds in general: > 25 mg/l
- **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.
- **12.5 Results of PBT and vPvB assessment**
This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.
- **12.6 Other adverse effects**
Harmful effect due to pH shift.
Avoid transfer into the environment.
- **Water hazard:**
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Hand over to disposers of hazardous waste.

· European waste catalogue	
16 05 06*	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN2923
- **14.2 UN proper shipping name**
- **ADR** 2923 CORROSIVE SOLID, TOXIC, N.O.S. (dipotassium disulfate)
- **IMDG, IATA** CORROSIVE SOLID, TOXIC, N.O.S. (dipotassium disulfate)
- **14.3 Transport hazard class(es)**
- **ADR**



- **Class** 8 (CT2) Corrosive substances.

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· Label	8+6.1
· IMDG	
 	
· Class	8 Corrosive substances.
· Label	8/6.1
· IATA	
 	
· Class	8 Corrosive substances.
· Label	8 (6.1)
· 14.4 Packing group	
· ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Corrosive substances.
· Kemler Number:	86
· EMS Number:	F-A,S-B
· Segregation groups	Acids
· Stowage Category	B
· Stowage Code	SW2 Clear of living quarters.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1 kg
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
· Transport category	2
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1 kg
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g

SECTION 15: Regulatory information

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

· **Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:**

None of the ingredients is listed.

· **Directive 2012/18/EU (SEVESO III):**

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

· **Regulation (EU) No 649/2012**

None of the ingredients is listed.

· **Information about limitation of use:** Employment restrictions concerning young persons must be observed.

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

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.
 H318 Causes serious eye damage.
 H331 Toxic if inhaled.
 H332 Harmful if inhaled.
 H411 Toxic to aquatic life with long lasting effects.

- **Training hints** Provide adequate information, instruction and training for operators.

- **Abbreviations and acronyms:**

EC50: effective concentration, 50 percent (in vivo)
 STOT: specific target organ toxicity
 SE: single exposure
 RE: repeated exposure
 EC50: half maximal effective concentration
 IC50: half maximal inhibitory concentration
 NOEL or NOEC: No Observed Effect Level or Concentration
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 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
 Acute Tox. 4: Acute toxicity – Category 4
 Acute Tox. 3: Acute toxicity – Category 3
 Skin Corr. 1A: Skin corrosion/irritation – Category 1A
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

- **Sources**

Data arise from safety data sheets, reference works and literature.
 ECHA: European CHemicals Agency <http://echa.europa.eu>

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