

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.01.2023

Version number 4 (replaces version 3)

Revision: 23.01.2023

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

### 1.1 Product identifier

· **Trade name:** R-PO4/1-2A

· **Article number:** 827522

· **Description:** Reagent solution for phosphate analyzer

### 1.2 Relevant identified uses of the substance or mixture and uses advised against:

· **Product category:** PC21 Laboratory chemicals

· **Process category:** PROC15 Use as laboratory reagent

· **Application of the substance / the preparation:** Phosphate measurement with analyzer

### 1.3 Details of the supplier of the safety data sheet

· **Manufacturer/Supplier:**

Xylem Analytics Germany GmbH  
WTW  
Am Achalaich 11  
82362 Weilheim  
Germany  
Tel. +49 881 183-0

· **Further information obtainable from:** E-mail: [Info.WTW@xylem.com](mailto:Info.WTW@xylem.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:**



GHS05 corrosion

Met. Corr.1 H290 May be corrosive to metals.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

### 2.2 Label elements:

· **Labelling according to Regulation (EC) No 1272/2008:** The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms:**



GHS05

· **Signal word:** Warning

· **Hazard statements:**

H290 May be corrosive to metals.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

(Contd. on page 2)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.01.2023

Version number 4 (replaces version 3)

Revision: 23.01.2023

Trade name: R-PO4/1-2A

(Contd. of page 1)

## Precautionary statements:

- P280 Wear protective clothing / eye protection.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## Additional information:

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.

- 2.3 Other hazards No further relevant information available.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Description:

Mixture of substances listed below with nonhazardous additions.  
Water, sulphuric acid, ammonium monovanadate

#### Dangerous components:

CAS: 7664-93-9 EINECS: 231-639-5 Index number: 016-020-00-8	sulphuric acid Skin Corr. 1A, H314 Specific concentration limits: Skin Corr. 1A; H314: $C \geq 15\%$ Skin Irrit. 2; H315: $5\% \leq C < 15\%$ Eye Irrit. 2; H319: $5\% \leq C < 15\%$	5 - < 10%
CAS: 7803-55-6 EINECS: 232-261-3	ammonium monovanadate Acute Tox. 3, H301; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	0.1 - < 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

- After inhalation: Supply fresh air; consult doctor in case of complaints.

#### After skin contact:

Wash with plenty of soap and water.  
Take off contaminated clothing.  
If skin irritation or rash occurs: Get medical advice/attention.

- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

#### After swallowing:

Rinse out mouth and then drink plenty of water.  
Do not induce vomiting (risk of perforation)  
Do not attempt to neutralize.  
Call a doctor immediately.

- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing agents: The product is not flammable. Extinguishing agent to suit environment.

### 5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:  
Sulphur oxides (SO<sub>x</sub>)  
Vanadium oxide compounds

### 5.3 Advice for firefighters

#### Protective equipment:

Wear self-contained respiratory protective device.  
Wear chemical protective clothing in the case of heavy toxic load.

(Contd. on page 3)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.01.2023

Version number 4 (replaces version 3)

Revision: 23.01.2023

Trade name: R-PO4/1-2A

(Contd. of page 2)

· **Additional information** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## SECTION 6: Accidental release measures

### · 6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment (see section 8).

### · 6.2 Environmental precautions:

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

### · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to section 13.

Wash off residuals with water.

### · 6.4 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

### · 7.1 Precautions for safe handling

Wear personal protective equipment (see section 8)

· **Information about fire - and explosion protection:** No special measures required.

### · 7.2 Conditions for safe storage, including any incompatibilities

· **Requirements to be met by storerooms and receptacles:** Do not use light alloy receptacles.

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

· **Further information about storage conditions:**

Store receptacle in a well ventilated area.

Store tightly sealed at temperatures between 15 °C and 25 °C.

### · 7.3 Specific end use(s)

No further relevant information available.

## SECTION 8: Exposure controls/personal protection

### · 8.1 Control parameters

· **Ingredients with limit values that require monitoring at the workplace:**

7664-93-9 sulphuric acid

IOELV Long-term value: 0.05 mg/m<sup>3</sup>

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

### · 8.2 Exposure controls

· **Appropriate engineering controls** No further data; see item 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and at the end of work.

· **Respiratory protection:** Use suitable respiratory protective device only when aerosol or mist is formed.

· **Recommended Filter type:** Combination filter E-P2

· **Hand protection** Protective gloves

· **Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.11$  mm

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.

· **Eye/face protection** Safety glasses

(Contd. on page 4)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.01.2023

Version number 4 (replaces version 3)

Revision: 23.01.2023

Trade name: R-PO4/1-2A

(Contd. of page 3)

## · Environmental exposure controls

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 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

· Physical state	Fluid
· Colour:	Light yellow
· Odour:	Odourless
· Melting point/freezing point:	Undetermined.
· Boiling point or initial boiling point and boiling range	100 °C
· Flammability	Product is not flammable.
· Flash point:	Not applicable.
· pH at 20 °C	0
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Fully miscible.
· Vapour pressure at 20 °C:	23 hPa
· Density and/or relative density	
· Density at 20 °C:	1.25 g/cm <sup>3</sup>

### · 9.2 Other information

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

· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.

#### · 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	May be corrosive to metals.
· Desensitised explosives	Void

EU —

(Contd. on page 5)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.01.2023

Version number 4 (replaces version 3)

Revision: 23.01.2023

Trade name: R-PO4/1-2A

(Contd. of page 4)

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Formation of hydrogen possible with metals and alloys (risk of explosion).
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
  - Alkalis
  - Metals
- **10.6 Hazardous decomposition products:** In case of fire, see section 5.

## SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

- **Acute toxicity**

No quantitative toxicity data are available for this product.  
Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

### 7664-93-9 sulphuric acid

Oral	LD50	2140 mg/kg (Rat) (RTECS)
Inhalative	LC50	510 mg/m <sup>3</sup> , 2 h (Rat) (RTECS)

### 7803-55-6 ammonium monovanadate

Oral	LD50	169 mg/kg (Rat) (OECD)
Dermal	LD50	> 2500 mg/kg (Rat) (OECD)
Inhalative	LC50	2.5 mg/l, 4 h (Rat) (OECD)

- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

## SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

### 7664-93-9 sulphuric acid

EC50	29 mg/l, 24 h (Daphnia magna)
LC50	16 – 29 mg/l, 96 h (Lepomis macrochirus)

### 7803-55-6 ammonium monovanadate

LC50	2.6 mg/l, 96 h (Ictalurus catus) (ECOTOX)
------	---

- **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** Not applicable.

(Contd. on page 6)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 23.01.2023

Version number 4 (replaces version 3)

Revision: 23.01.2023

Trade name: R-PO4/1-2A

(Contd. of page 5)

· **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

· **12.7 Other adverse effects**

· **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.

· **Additional ecological information:**

· **General notes:**

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

· **13.1 Waste treatment methods**

· **Recommendation**

Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

· **Uncleaned packaging:**

· **Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

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

### SECTION 14: Transport information

· **14.1 UN number or ID number**

· **ADR/RID, IMDG, IATA**

UN2796

· **14.2 UN proper shipping name**

· **IMDG, IATA**

SULPHURIC ACID

· **14.3 Transport hazard class(es)**

· **ADR/RID, IMDG, IATA**



· **Class**

8 Corrosive substances.

· **Label**

8

· **14.4 Packing group**

· **ADR/RID, IMDG, IATA**

II

· **14.5 Environmental hazards:**

· **Marine pollutant:**

No

· **14.6 Special precautions for user**

Warning: Corrosive substances.

· **Hazard identification number (Kemler code):**

80

· **EMS Number:**

F-A,S-B

· **Segregation groups**

(SGG1) Acids

· **Stowage Category**

B

· **Stowage Code**

SW2 Clear of living quarters.

· **Segregation Code**

SG36 Stow "separated from" SGG18-alkalis.

SG49 Stow "separated from" SGG6-cyanides

(Contd. on page 7)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.01.2023

Version number 4 (replaces version 3)

Revision: 23.01.2023

Trade name: R-PO4/1-2A

(Contd. of page 6)

· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>ADR/RID</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	E
· <b>UN "Model Regulation":</b>	UN 2796 SULPHURIC ACID, 8, II

## SECTION 15: Regulatory information

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

#### · Directive 2012/18/EU

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

#### · REGULATION (EU) 2019/1148

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

#### · Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

#### · Regulation (EC) No 273/2004 on drug precursors

7664-93-9 sulphuric acid

3

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

7664-93-9 sulphuric acid

3

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

## SECTION 16: Other information

#### · Relevant phrases

H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

· **Date of previous version:** 13.10.2021

· **Version number of previous version:** 3

#### · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

(Contd. on page 8)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.01.2023

Version number 4 (replaces version 3)

Revision: 23.01.2023

---

**Trade name: R-PO4/1-2A**

---

(Contd. of page 7)

vPvB: very Persistent and very Bioaccumulative  
Met. Corr.1: Corrosive to metals – Category 1  
Acute Tox. 3: Acute toxicity – Category 3  
Acute Tox. 4: Acute toxicity – Category 4  
Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

---

EU

---