

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 28.01.2020

Version 13.2

**SECTION 1. Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Catalogue No.	114729
Product name	Phosphate Cell Test (o-phosphate and total phosphorous) Method: photometric, PMB 0.5 - 25.0 mg/l PO <sub>4</sub> -P 1.5 - 76.7 mg/l PO <sub>4</sub> <sup>3-</sup> 1.1 - 57.3 mg/l P <sub>2</sub> O <sub>5</sub> Spectroquant®
	P
REACH Registration Number	This product is a mixture. REACH Registration Number see section 3.

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

Identified uses	Reagent for analysis For additional information on uses please refer to the Merck Chemicals portal ( <a href="http://www.merckgroup.com">www.merckgroup.com</a> ).
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**1.3 Details of the supplier of the safety data sheet**

Company	Merck KGaA * 64271 Darmstadt * Germany * Phone: +49 6151 72-0
Responsible Department	LS-QHC * e-mail: <a href="mailto:prodsafe@merckgroup.com">prodsafe@merckgroup.com</a>

**1.4 Emergency telephone number** Please contact the regional company representation in your country.**SECTION 2. Hazards identification****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Corrosive to metals, Category 1, H290

For the full text of the H-Statements mentioned in this Section, see Section 16.

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## 2.2 Label elements

### Labelling.(REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word  
Warning

Hazard statements  
H290 May be corrosive to metals.

## 2.3 Other hazards

None known.

## SECTION 3. Composition/information on ingredients

Chemical nature Aqueous solution

### 3.1 Substance

Not applicable

### 3.2 Mixture

#### Hazardous components (REGULATION (EC) No 1272/2008)

Chemical name (Concentration)

CAS-No.	Registration number	Classification
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sulphuric acid ( $\geq 1\%$  -  $< 5\%$ )

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

7664-93-9	01-2119458838-20-XXXX	01- Corrosive to metals, Category 1, H290
	2119458838-20-XXXX	Skin corrosion, Category 1A, H314

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary. Remove contact lenses.

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After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

#### 4.2 Most important symptoms and effects, both acute and delayed

irritant effects

#### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

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## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

*Suitable extinguishing media*

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

*Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

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

Not combustible.

Ambient fire may liberate hazardous vapours.

### 5.3 Advice for firefighters

*Special protective equipment for firefighters*

In the event of fire, wear self-contained breathing apparatus.

*Further information*

Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent and neutralising material (e.g. Chemisorb® H<sup>+</sup>, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

# SAFETY DATA SHEET

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Indications about waste treatment see section 13.

## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

*Advice on safe handling*

Observe label precautions.

*Hygiene measures*

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

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

*Storage conditions*

Tightly closed. Dry. Do not store near combustible materials.

Keep locked up or in an area accessible only to qualified or authorised persons.

Recommended storage temperature see product label.

The data applies to the entire pack.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## SECTION 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Derived No Effect Level (DNEL)

*sulphuric acid (7664-93-9)*

Worker DNEL, acute Local effects inhalation 0,1 mg/m<sup>3</sup>

Worker DNEL, longterm Local effects inhalation 0,05 mg/m<sup>3</sup>

#### Predicted No Effect Concentration (PNEC)

*sulphuric acid (7664-93-9)*

PNEC Fresh water 0,0025 mg/l

PNEC Fresh water sediment 0,002 mg/kg

PNEC Marine water 0,00025 mg/l

PNEC Marine sediment 0,002 mg/kg

PNEC Sewage treatment plant 8,8 mg/l

### 8.2 Exposure controls

#### Engineering measures

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

See section 7.1.

## Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

### *Eye/face protection*

Safety glasses

### *Hand protection*

full contact:

Glove material: Nitrile rubber  
Glove thickness: 0,11 mm  
Break through time: 480 min

splash contact:

Glove material: Nitrile rubber  
Glove thickness: 0,11 mm  
Break through time: 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

### *Other protective equipment*

protective clothing

### *Respiratory protection*

required when vapours/aerosols are generated.

Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

## Environmental exposure controls

Do not let product enter drains.

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## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	liquid
Colour	colourless
Odour	odourless
Odour Threshold	Not applicable
pH	< 1 at 20 °C
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapour pressure	No information available.
Relative vapour density	No information available.
Density	ca.1,01 g/cm <sup>3</sup> at 20 °C
Relative density	No information available.
Water solubility	at 20 °C soluble
Partition coefficient: n-octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.

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Viscosity, dynamic No information available.  
Explosive properties Not classified as explosive.  
Oxidizing properties none

## 9.2 Other data

Corrosion May be corrosive to metals.

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## SECTION 10. Stability and reactivity

### 10.1 Reactivity

has a corrosive effect

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

The generally known reaction partners of water.

### 10.4 Conditions to avoid

no information available

### 10.5 Incompatible materials

animal/vegetable tissues

Metals

Gives off hydrogen by reaction with metals.

### 10.6 Hazardous decomposition products

no information available

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## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

#### *Acute oral toxicity*

This information is not available.

#### *Acute inhalation toxicity*

This information is not available.

#### *Acute dermal toxicity*

This information is not available.

#### *Skin irritation*

This information is not available.

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## *Eye irritation*

This information is not available.

## *Sensitisation*

This information is not available.

## *Germ cell mutagenicity*

This information is not available.

## *Carcinogenicity*

This information is not available.

## *Reproductive toxicity*

This information is not available.

## *Teratogenicity*

This information is not available.

## *Specific target organ toxicity - single exposure*

This information is not available.

## *Specific target organ toxicity - repeated exposure*

This information is not available.

## *Aspiration hazard*

This information is not available.

## **11.2 Further information**

After skin contact: irritative response if not handled appropriately. After eye contact: corneal lesions may occur under certain circumstances. After swallowing: damage to the affected mucous membranes possible.

However, when the product is handled appropriately, hazardous effects are unlikely to occur.

Handle in accordance with good industrial hygiene and safety practice.

## **Components**

### *sulphuric acid*

#### *Acute oral toxicity*

LD50 Rat: 2.140 mg/kg (ECHA)

#### *Repeated dose toxicity*

Rat

female

Inhalation

dust/mist

28 d

daily

LOAEL: 0,0003 mg/l

OECD Test Guideline 412

Subacute toxicity

#### *Germ cell mutagenicity*

#### *Genotoxicity in vitro*

Ames test

Salmonella typhimurium

Result: negative

(HSDB)



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## SECTION 12. Ecological information

### Mixture

#### 12.1 Toxicity

No information available.

#### 12.2 Persistence and degradability

No information available.

#### 12.3 Bioaccumulative potential

No information available.

#### 12.4 Mobility in soil

No information available.

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

#### 12.6 Other adverse effects

*Additional ecological information*

Discharge into the environment must be avoided.

### Components

#### *sulphuric acid*

##### *Toxicity to fish*

static test LC50 *Lepomis macrochirus* (Bluegill sunfish): > 16 - < 28 mg/l; 96 h

Analytical monitoring: yes(ECHA)

##### *Toxicity to daphnia and other aquatic invertebrates*

static test EC50 *Daphnia magna* (Water flea): > 100 mg/l; 48 h

Analytical monitoring: yes

OECD Test Guideline 202

##### *Toxicity to algae*

static test EC50 *Desmodesmus subspicatus* (green algae): > 100 mg/l; 72 h

Analytical monitoring: yes

OECD Test Guideline 201

##### *Biodegradability*

Hydrolysis

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

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## SECTION 13. Disposal considerations

### Waste treatment methods

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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## SECTION 14. Transport information

### Land transport (ADR/RID)

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** yes  
Tunnel restriction code E

### Inland waterway transport (ADN)

Not relevant

### Air transport (IATA)

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** no

### Sea transport (IMDG)

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --

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**14.6 Special precautions for user** yes

EmS F-A S-P

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not relevant

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

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## SECTION 15. Regulatory information

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

#### *EU regulations*

Major Accident Hazard Legislation 96/82/EC  
Directive 96/82/EC does not apply

SEVESO III  
Not applicable

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of  $\geq 0.1\%$  (w/w).

#### *National legislation*

Storage class 5.1B  
The data applies to the entire pack.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

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## SECTION 16. Other information

### Full text of H-Statements referred to under sections 2 and 3.

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

### Training advice

Provide adequate information, instruction and training for operators.

### Labelling

Hazard pictograms



Signal word

Warning

Hazard statements

H290 May be corrosive to metals.

### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

### Regional representation

This information is given on the authorised Safety Data Sheet for your country.

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*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact [mlsbranding@sial.com](mailto:mlsbranding@sial.com).

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according to Regulation (EC) No. 1907/2006

Revision Date 28.01.2020

Version 13.2

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	P-1K
REACH Registration Number	This product is a mixture. REACH Registration Number see section 3.

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

Identified uses	Reagent for analysis For additional information on uses please refer to the Merck Chemicals portal ( <a href="http://www.merckgroup.com">www.merckgroup.com</a> ).
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### 1.3 Details of the supplier of the safety data sheet

Company	Merck KGaA * 64271 Darmstadt * Germany * Phone: +49 6151 72-0
Responsible Department	LS-QHC * e-mail: <a href="mailto:prodsafe@merckgroup.com">prodsafe@merckgroup.com</a>

### 1.4 Emergency telephone number

**Please contact the regional company representation in your country.**

## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

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P-1K

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Oxidizing solid, Category 3, H272  
Acute toxicity, Category 4, Oral, H302  
Skin irritation, Category 2, H315  
Eye irritation, Category 2, H319  
Respiratory sensitisation, Category 1, H334  
Skin sensitisation, Category 1, H317  
Specific target organ toxicity - single exposure, Category 3, H335  
For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 Label elements

### Labelling.(REGULATION (EC) No 1272/2008)

#### Hazard pictograms



Signal word  
Danger

#### Hazard statements

H272 May intensify fire; oxidizer.  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.

#### Precautionary statements

##### Prevention

P280 Wear protective gloves.

##### Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

### Reduced labelling (≤125 ml)

#### Hazard pictograms



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P-1K

*Signal word*  
Danger

*Hazard statements*  
H317 May cause an allergic skin reaction.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

*Precautionary statements*  
P280 Wear protective gloves.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Contains: sodium nitrate, Potassium persulfate

## 2.3 Other hazards

None known.

## SECTION 3. Composition/information on ingredients

Chemical nature Mixture of inorganic compounds

### 3.1 Substance

Not applicable

### 3.2 Mixture

#### Hazardous components (REGULATION (EC) No 1272/2008)

*Chemical name (Concentration)*

CAS-No.	Registration number	Classification
sodium nitrate (>= 50 % - <= 100 % )		
7631-99-4	01-2119488221-41-XXXX	Oxidizing solid, Category 3, H272 Eye irritation, Category 2, H319

Potassium persulfate (>= 25 % - < 50 % )  
7727-21-1 \*)

Oxidizing solid, Category 3, H272  
Acute toxicity, Category 4, H302  
Skin irritation, Category 2, H315  
Eye irritation, Category 2, H319  
Respiratory sensitisation, Category 1, H334  
Skin sensitisation, Category 1, H317  
Specific target organ toxicity - single exposure, Category 3, H335

\*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

For the full text of the H-Statements mentioned in this Section, see Section 16.

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## SECTION 4. First aid measures

### 4.1 Description of first aid measures

#### *General advice*

First aider needs to protect himself.

After inhalation: fresh air. Call in physician.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The following applies to nitrites/nitrates in general: methaemoglobinaemia after the uptake of large quantities.

irritant effects, Allergic reactions, Cough, Shortness of breath

Diarrhoea, Nausea, Vomiting

### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

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## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

#### *Suitable extinguishing media*

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

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

Not combustible.

Has a fire-promoting effect due to release of oxygen.

Ambient fire may liberate hazardous vapours.

Fire may cause evolution of:

nitrous gases, nitrogen oxides, Sulphur oxides

### 5.3 Advice for firefighters

#### *Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

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Method: photometric, PMB 0.5 - 25.0 mg/l PO<sub>4</sub>-P  
1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
P-1K

---

## *Further information*

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

## **SECTION 6. Accidental release measures**

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

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

### **6.4 Reference to other sections**

Indications about waste treatment see section 13.

---

## **SECTION 7. Handling and storage**

### **7.1 Precautions for safe handling**

#### *Advice on safe handling*

Observe label precautions.

Work under hood. Do not inhale substance/mixture.

#### *Hygiene measures*

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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

#### *Storage conditions*

Tightly closed. Dry. Do not store near combustible materials.

Keep locked up or in an area accessible only to qualified or authorised persons.

Recommended storage temperature see product label.

The data applies to the entire pack.

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

---

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 114729  
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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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---

## SECTION 8. Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### Engineering measures

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

See section 7.1.

#### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

##### *Eye/face protection*

Safety glasses

##### *Hand protection*

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatrill® L (full contact), KCL 741 Dermatrill® L (splash contact).

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

##### *Other protective equipment*

protective clothing

##### *Respiratory protection*

required when dusts are generated.

Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
P-1K

---

These measures have to be properly documented.

## Environmental exposure controls

Do not let product enter drains.

---

## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	solid
Colour	colourless
Odour	odourless
Odour Threshold	Not applicable
pH	ca. 5,0 - 5,5 at 50 g/l 20 °C
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapour pressure	No information available.
Relative vapour density	No information available.
Density	No information available.
Relative density	No information available.
Water solubility	at 20 °C soluble
Partition coefficient: n-octanol/water	No information available.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
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Auto-ignition temperature No information available.  
Decomposition temperature > 100 °C  
Viscosity, dynamic No information available.  
Explosive properties Not classified as explosive.  
Oxidizing properties The substance or mixture is classified as oxidizing with the category 3.

## 9.2 Other data

Bulk density ca.1.100 kg/m<sup>3</sup>  
Particle size Mean particle size  
0,35 mm

---

## SECTION 10. Stability and reactivity

### 10.1 Reactivity

Oxidizing agents

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Risk of explosion with:

aluminium oxide, boron phosphide, Barium thiocyanate, combustible substances, Cyanides, Acetic anhydride, charcoal, Powdered metals, powdered aluminium, powdered magnesium, peracetic acid, Polyvinylchloride, sodium, sodium phosphite, sodium thiosulphate, Sodium sulfamate, sulfur, Sodium cyanide, Oxidizing agents

antimony, in powder form

Zinc, in powder form

Risk of ignition or formation of inflammable gases or vapours with:

Potassium hydroxide, Reducing agents, Arsenic oxides, Organic Substances

Exothermic reaction with:

alkali hydroxides, Sodium hydroxide

### 10.4 Conditions to avoid

Strong heating (decomposition).

### 10.5 Incompatible materials

no information available

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
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---

## 10.6 Hazardous decomposition products

in the event of fire: See section 5.

---

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

##### *Acute oral toxicity*

Acute toxicity estimate: 1.079 mg/kg

Calculation method

Symptoms: Nausea, Vomiting, Diarrhoea, Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

##### *Acute inhalation toxicity*

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract, Lung oedema

##### *Acute dermal toxicity*

This information is not available.

##### *Skin irritation*

Mixture causes skin irritation.

##### *Eye irritation*

Mixture causes serious eye irritation.

##### *Sensitisation*

Mixture may cause allergy or asthma symptoms or breathing difficulties if inhaled.

Mixture may cause an allergic skin reaction.

##### *Germ cell mutagenicity*

This information is not available.

##### *Carcinogenicity*

This information is not available.

##### *Reproductive toxicity*

This information is not available.

##### *Teratogenicity*

This information is not available.

##### *Specific target organ toxicity - single exposure*

Mixture may cause respiratory irritation.

##### *Specific target organ toxicity - repeated exposure*

This information is not available.

##### *Aspiration hazard*

This information is not available.

### 11.2 Further information

After absorption of large quantities:

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according to Regulation (EC) No. 1907/2006

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1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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Methaemoglobinaemia with headache, cardiac arrhythmia, drop in blood pressure, dyspnoea, and spasms, key symptom: cyanosis (blue colouration of the blood).  
Handle in accordance with good industrial hygiene and safety practice.  
Other dangerous properties can not be excluded.

## Components

### *sodium nitrate*

#### *Acute oral toxicity*

LD50 Rat: 3.430 mg/kg  
OECD Test Guideline 401

#### *Acute dermal toxicity*

LD50 Rat: > 5.000 mg/kg  
OECD Test Guideline 402

#### *Skin irritation*

Rabbit  
Result: No skin irritation  
OECD Test Guideline 404  
The value is given in analogy to the following substances:

#### *Eye irritation*

Rabbit  
Result: irritating  
OECD Test Guideline 405

#### *Sensitisation*

Local lymph node assay (LLNA) Mouse  
Result: negative  
Method: OECD Test Guideline 429

#### *Repeated dose toxicity*

Rat  
male and female  
Oral  
28 d  
daily  
NOAEL: >= 1.500 mg/kg  
OECD Test Guideline 422  
The value is given in analogy to the following substances:

#### *Germ cell mutagenicity*

#### *Genotoxicity in vitro*

In vitro mammalian cell gene mutation test  
Human lymphocytes  
Result: negative  
Method: OECD Test Guideline 473

#### Ames test

Salmonella typhimurium  
Result: negative  
Method: OECD Test Guideline 471

### *Potassium persulfate*

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according to Regulation (EC) No. 1907/2006

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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---

*Acute oral toxicity*  
LD50 Rat: 802 mg/kg (RTECS)

*Sensitisation*  
Human experience  
Result: positive  
(Lit.)

---

## SECTION 12. Ecological information

### Mixture

#### 12.1 Toxicity

No information available.

#### 12.2 Persistence and degradability

No information available.

#### 12.3 Bioaccumulative potential

No information available.

#### 12.4 Mobility in soil

No information available.

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

#### 12.6 Other adverse effects

*Additional ecological information*

Hazard for drinking water supplies.

Discharge into the environment must be avoided.

### Components

#### *sodium nitrate*

*Toxicity to fish*

LC50 Ictalurus catus (catfish): 6.200 mg/l; 96 h (IUCLID)

*Toxicity to daphnia and other aquatic invertebrates*

EC50 Daphnia magna (Water flea): 3.581 mg/l; 48 h (IUCLID)

*Toxicity to bacteria*

static test EC50 activated sludge: > 1.000 mg/l; 3 h

OECD Test Guideline 209

*Toxicity to fish (Chronic toxicity)*

flow-through test NOEC Pimephales promelas (fathead minnow): 58 mg/l; 30 d

Analytical monitoring: yes

#### *Biodegradability*

The methods for determining the biological degradability are not applicable to inorganic substances.

#### *Potassium persulfate*

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according to Regulation (EC) No. 1907/2006

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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---

*Toxicity to fish*

LC50 *Poecilia reticulata* (guppy): 100 mg/l; 96 h (Hommel)

*Toxicity to daphnia and other aquatic invertebrates*

EC50 *Daphnia magna* (Water flea): 357 mg/l; 24 h (Hommel)

*Toxicity to bacteria*

EC50 *Pseudomonas putida*: 36 mg/l (Hommel)

---

## SECTION 13. Disposal considerations

*Waste treatment methods*

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

---

## SECTION 14. Transport information

### Land transport (ADR/RID)

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** yes  
Tunnel restriction code E

### Inland waterway transport (ADN)

Not relevant

### Air transport (IATA)

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** no

### Sea transport (IMDG)



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
P-1K

---

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** yes  
EmS F-A S-P  
**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not relevant

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

---

## SECTION 15. Regulatory information

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

#### *EU regulations*

Major Accident Hazard 96/82/EC  
Legislation Oxidizing  
3  
Quantity 1: 50 t  
Quantity 2: 200 t  
  
SEVESO III  
OXIDIZING LIQUIDS AND SOLIDS  
P8  
Quantity 1: 50 t  
Quantity 2: 200 t

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

# SAFETY DATA SHEET

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1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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Substances of very high concern (SVHC)

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of  $\geq 0.1\%$  (w/w).

### National legislation

Storage class 5.1B

The data applies to the entire pack.

## 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

## SECTION 16. Other information

### Full text of H-Statements referred to under sections 2 and 3.

H272	May intensify fire; oxidizer.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

### Training advice

Provide adequate information, instruction and training for operators.

### Labelling

Hazard pictograms



Signal word

Danger

Hazard statements

H272 May intensify fire; oxidizer.  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 114729  
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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
P-1K

---

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.

#### *Precautionary statements*

##### Prevention

P280 Wear protective gloves.

##### Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Contains: sodium nitrate, Potassium persulfate

#### **Key or legend to abbreviations and acronyms used in the safety data sheet**

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

#### **Regional representation**

This information is given on the authorised Safety Data Sheet for your country.

---

*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact [mlsbranding@sial.com](mailto:mlsbranding@sial.com).

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 28.01.2020

Version 13.2

**SECTION 1. Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Catalogue No.	114729
Product name	Phosphate Cell Test (o-phosphate and total phosphorous) Method: photometric, PMB 0.5 - 25.0 mg/l PO <sub>4</sub> -P 1.5 - 76.7 mg/l PO <sub>4</sub> <sup>3-</sup> 1.1 - 57.3 mg/l P <sub>2</sub> O <sub>5</sub> Spectroquant®  P-2K
REACH Registration Number	This product is a mixture. REACH Registration Number see section 3.

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

Identified uses	Reagent for analysis For additional information on uses please refer to the Merck Chemicals portal ( <a href="http://www.merckgroup.com">www.merckgroup.com</a> ).
-----------------	---

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

Company	Merck KGaA * 64271 Darmstadt * Germany * Phone: +49 6151 72-0
Responsible Department	LS-QHC * e-mail: <a href="mailto:prodsafe@merckgroup.com">prodsafe@merckgroup.com</a>

**1.4 Emergency telephone number** Please contact the regional company representation in your country.**SECTION 2. Hazards identification****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Corrosive to metals, Category 1, H290

Skin irritation, Category 2, H315

Eye irritation, Category 2, H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 114729  
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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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---

## 2.2 Label elements

### Labelling.(REGULATION (EC) No 1272/2008)

*Hazard pictograms*



*Signal word*  
Warning

*Hazard statements*

H290 May be corrosive to metals.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

*Precautionary statements*

Response  
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.

### Reduced labelling (≤125 ml)

*Hazard pictograms*



*Signal word*  
Warning

## 2.3 Other hazards

None known.

---

## SECTION 3. Composition/information on ingredients

Chemical nature Aqueous sulfuric acid solution of inorganic compounds.

### 3.1 Substance

Not applicable

### 3.2 Mixture

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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## Hazardous components (REGULATION (EC) No 1272/2008)

*Chemical name (Concentration)*

CAS-No.	Registration number	Classification
---------	---------------------	----------------

sulphuric acid ( $\geq 10\%$  -  $< 15\%$ )

*Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.*

7664-93-9	01-2119458838-	
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20-XXXX	01-	
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Corrosive to metals, Category 1, H290

2119458838-20-		
----------------	--	--

Skin corrosion, Category 1A, H314

XXXX		
------	--	--

For the full text of the H-Statements mentioned in this Section, see Section 16.

---

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The following applies to trivalent antimony compounds in general: after uptake and absorption as a result of misuse or improper handling, drop in blood pressure, hepatotoxic effect, in some circumstances myalgia, dyspnoea, dermatitis.

irritant effects

Circulatory collapse

### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

---

## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

*Suitable extinguishing media*

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

*Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

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

Not combustible.

Ambient fire may liberate hazardous vapours.

---

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
P-2K

---

Fire may cause evolution of:  
Sulphur oxides

### 5.3 Advice for firefighters

*Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

*Further information*

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

## SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® H<sup>+</sup>, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

Indications about waste treatment see section 13.

---

## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

*Advice on safe handling*

Observe label precautions.

*Hygiene measures*

Change contaminated clothing and immerse in water. Preventive skin protection

Wash hands and face after working with substance.

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

*Requirements for storage areas and containers*

No metal containers.

*Storage conditions*

Tightly closed. Dry. Do not store near combustible materials.

---

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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Method: photometric, PMB 0.5 - 25.0 mg/l PO<sub>4</sub>-P  
1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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---

Keep locked up or in an area accessible only to qualified or authorised persons.

Recommended storage temperature see product label.

The data applies to the entire pack.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

---

## SECTION 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Derived No Effect Level (DNEL)

*sulphuric acid (7664-93-9)*

Worker DNEL, acute Local effects inhalation 0,1 mg/m<sup>3</sup>

Worker DNEL, Local effects inhalation 0,05 mg/m<sup>3</sup>  
longterm

#### Predicted No Effect Concentration (PNEC)

*sulphuric acid (7664-93-9)*

PNEC Fresh water 0,0025 mg/l

PNEC Fresh water sediment 0,002 mg/kg

PNEC Marine water 0,00025 mg/l

PNEC Marine sediment 0,002 mg/kg

PNEC Sewage treatment plant 8,8 mg/l

### 8.2 Exposure controls

#### Engineering measures

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

See section 7.1.

#### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

*Eye/face protection*

Safety glasses

*Hand protection*

full contact:



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 114729  
Product name Phosphate Cell Test (o-phosphate and total phosphorous)  
Method: photometric, PMB 0.5 - 25.0 mg/l PO<sub>4</sub>-P  
1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
P-2K

---

Glove material: natural latex  
Glove thickness: 0,6 mm  
Break through time: 480 min

splash contact:

Glove material: natural latex  
Glove thickness: 0,6 mm  
Break through time: 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 706 Lapren® (full contact), KCL 706 Lapren® (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

*Other protective equipment*  
protective clothing

#### *Respiratory protection*

required when vapours/aerosols are generated.

Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

### **Environmental exposure controls**

Do not let product enter drains.

---

## **SECTION 9. Physical and chemical properties**

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

Form	liquid
Colour	colourless
Odour	odourless
Odour Threshold	Not applicable
pH	< 1 at 20 °C

# SAFETY DATA SHEET

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapour pressure	No information available.
Relative vapour density	No information available.
Density	1,12 g/cm <sup>3</sup> at 20 °C
Relative density	No information available.
Water solubility	at 20 °C soluble
Partition coefficient: n-octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	Oxidizing potential

## 9.2 Other data

Corrosion May be corrosive to metals.

---

## SECTION 10. Stability and reactivity

### 10.1 Reactivity

Oxidizing agents

### 10.2 Chemical stability

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 114729  
Product name Phosphate Cell Test (o-phosphate and total phosphorous)  
Method: photometric, PMB 0.5 - 25.0 mg/l PO<sub>4</sub>-P  
1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

Water, Alkali metals, alkali compounds, Ammonia, alkalines, Metals, Alkaline earth metals, alkaline earth compounds, metal alloys, acids

### 10.4 Conditions to avoid

no information available

### 10.5 Incompatible materials

animal/vegetable tissues

Metals

Gives off hydrogen by reaction with metals.

### 10.6 Hazardous decomposition products

in the event of fire: See section 5.

---

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

#### *Acute oral toxicity*

This information is not available.

#### *Acute inhalation toxicity*

This information is not available.

#### *Acute dermal toxicity*

This information is not available.

#### *Skin irritation*

Mixture causes skin irritation.

#### *Eye irritation*

Mixture causes serious eye irritation.

#### *Sensitisation*

This information is not available.

#### *Germ cell mutagenicity*

This information is not available.

#### *Carcinogenicity*

This information is not available.

#### *Reproductive toxicity*

This information is not available.

#### *Teratogenicity*

This information is not available.

#### *Specific target organ toxicity - single exposure*

This information is not available.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 114729  
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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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---

### *Specific target organ toxicity - repeated exposure*

This information is not available.

### *Aspiration hazard*

This information is not available.

## **11.2 Further information**

After inhalation of vapours: irritative symptoms in the respiratory tract. After skin contact: severe irritations. After eye contact: corneal destruction. After swallowing: damage of the oral, oesophageal, and gastric mucous membranes. Perforation of the oesophagus frequently occurs. Circulatory collapse may occur after 1-2 hours. The following applies to trivalent antimony compounds in general: after uptake and absorption as a result of misuse or improper handling, drop in blood pressure, hepatotoxic effect, in some circumstances myalgia, dyspnoea, dermatitis. Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## **Components**

### *sulphuric acid*

#### *Acute oral toxicity*

LD50 Rat: 2.140 mg/kg (ECHA)

#### *Repeated dose toxicity*

Rat

female

Inhalation

dust/mist

28 d

daily

LOAEL: 0,0003 mg/l

OECD Test Guideline 412

Subacute toxicity

#### *Germ cell mutagenicity*

#### *Genotoxicity in vitro*

Ames test

Salmonella typhimurium

Result: negative

(HSDB)

---

## **SECTION 12. Ecological information**

### **Mixture**

#### **12.1 Toxicity**

No information available.

#### **12.2 Persistence and degradability**

No information available.

#### **12.3 Bioaccumulative potential**

No information available.

#### **12.4 Mobility in soil**

No information available.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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---

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

## 12.6 Other adverse effects

*Additional ecological information*

Harmful effect due to pH shift. Neutralisation possible in waste water treatment plants.

Discharge into the environment must be avoided.

## Components

*sulphuric acid*

*Toxicity to fish*

static test LC50 *Lepomis macrochirus* (Bluegill sunfish): > 16 - < 28 mg/l; 96 h

Analytical monitoring: yes(ECHA)

*Toxicity to daphnia and other aquatic invertebrates*

static test EC50 *Daphnia magna* (Water flea): > 100 mg/l; 48 h

Analytical monitoring: yes

OECD Test Guideline 202

*Toxicity to algae*

static test EC50 *Desmodesmus subspicatus* (green algae): > 100 mg/l; 72 h

Analytical monitoring: yes

OECD Test Guideline 201

*Biodegradability*

Hydrolysis

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

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according to Regulation (EC) No. 1907/2006

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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---

## SECTION 13. Disposal considerations

### Waste treatment methods

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

---

## SECTION 14. Transport information

### Land transport (ADR/RID)

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** yes  
Tunnel restriction code E

### Inland waterway transport (ADN)

Not relevant

### Air transport (IATA)

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** no

### Sea transport (IMDG)

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 114729  
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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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---

**14.6 Special precautions for user** yes

EmS F-A S-P

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not relevant

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

---

## SECTION 15. Regulatory information

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

#### *EU regulations*

Major Accident Hazard Legislation 96/82/EC  
Directive 96/82/EC does not apply

SEVESO III  
Not applicable

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of  $\geq 0.1\%$  (w/w).

#### *National legislation*

Storage class 5.1B  
The data applies to the entire pack.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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---

## SECTION 16. Other information

### Full text of H-Statements referred to under sections 2 and 3.

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

### Training advice

Provide adequate information, instruction and training for operators.

### Labelling

*Hazard pictograms*



### *Signal word*

Warning

### *Hazard statements*

H290 May be corrosive to metals.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

### *Precautionary statements*

Response  
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.  
P313 Get medical advice/ attention.

### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

### Regional representation

This information is given on the authorised Safety Data Sheet for your country.

---

*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	114729
Product name	Phosphate Cell Test (o-phosphate and total phosphorous) Method: photometric, PMB 0.5 - 25.0 mg/l PO <sub>4</sub> -P 1.5 - 76.7 mg/l PO <sub>4</sub> <sup>3-</sup> 1.1 - 57.3 mg/l P <sub>2</sub> O <sub>5</sub> Spectroquant® P-2K

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The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact [mlsbranding@sial.com](mailto:mlsbranding@sial.com).

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 28.01.2020

Version 13.2

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

### 1.1 Product identifier

Catalogue No.	114729
Product name	Phosphate Cell Test (o-phosphate and total phosphorous) Method: photometric, PMB 0.5 - 25.0 mg/l PO <sub>4</sub> -P 1.5 - 76.7 mg/l PO <sub>4</sub> <sup>3-</sup> 1.1 - 57.3 mg/l P <sub>2</sub> O <sub>5</sub> Spectroquant®
	P-3K
REACH Registration Number	A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
CAS-No.	50-81-7

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

Identified uses	Reagent for analysis For additional information on uses please refer to the Merck Chemicals portal ( <a href="http://www.merckgroup.com">www.merckgroup.com</a> ).
-----------------	---

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

Company	Merck KGaA * 64271 Darmstadt * Germany * Phone: +49 6151 72-0
Responsible Department	LS-QHC * e-mail: <a href="mailto:prodsafe@merckgroup.com">prodsafe@merckgroup.com</a>

### 1.4 Emergency telephone number

**Please contact the regional company representation in your country.**

## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 114729  
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Method: photometric, PMB 0.5 - 25.0 mg/l PO<sub>4</sub>-P  
1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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## 2.2 Label elements

### Labelling.(REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

## 2.3 Other hazards

None known.

---

## SECTION 3. Composition/information on ingredients

### 3.1 Substance

Formula C<sub>6</sub>H<sub>8</sub>O<sub>6</sub> (Hill)  
EC-No. 200-066-2  
Molar mass 176,12 g/mol

Remarks No disclosure requirement according to Regulation (EC) No. 1907/2006.

### 3.2 Mixture

Not applicable

---

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water. Remove contact lenses.

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

### 4.2 Most important symptoms and effects, both acute and delayed

We have no description of any symptoms of toxicity.

### 4.3 Indication of any immediate medical attention and special treatment needed

No information available.

---

## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

*Suitable extinguishing media*

Water, Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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---

## *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

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

Combustible.

Risk of dust explosion.

Development of hazardous combustion gases or vapours possible in the event of fire.

### **5.3 Advice for firefighters**

*Special protective equipment for firefighters*

In the event of fire, wear self-contained breathing apparatus.

*Further information*

Prevent fire extinguishing water from contaminating surface water or the ground water system.

Suppress (knock down) gases/vapours/mists with a water spray jet.

---

## **SECTION 6. Accidental release measures**

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

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

### **6.4 Reference to other sections**

Indications about waste treatment see section 13.

---

## **SECTION 7. Handling and storage**

### **7.1 Precautions for safe handling**

*Advice on safe handling*

Observe label precautions.

*Hygiene measures*

Change contaminated clothing. Wash hands after working with substance.

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

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
P-3K

---

## *Storage conditions*

Tightly closed. Dry. Do not store near combustible materials.

Keep locked up or in an area accessible only to qualified or authorised persons.

Recommended storage temperature see product label.

The data applies to the entire pack.

## **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

---

## **SECTION 8. Exposure controls/personal protection**

### **8.1 Control parameters**

### **8.2 Exposure controls**

#### **Engineering measures**

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

See section 7.1.

#### **Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

#### *Eye/face protection*

Safety glasses

#### *Hand protection*

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatrill® L (full contact), KCL 741 Dermatrill® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 114729  
Product name Phosphate Cell Test (o-phosphate and total phosphorous)  
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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
P-3K

---

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

#### *Respiratory protection*

required when dusts are generated.

Recommended Filter type: Filter P 1 (acc. to DIN 3181) for solid particles of inert substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

#### **Environmental exposure controls**

Do not let product enter drains.

---

## **SECTION 9. Physical and chemical properties**

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

Form	solid
Colour	white
Odour	odourless
Odour Threshold	Not applicable
pH	2,2 - 2,5 at 50 g/l 20 °C
Melting point	No information available.
Boiling point/boiling range	Not applicable
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	May form combustible dust concentrations in air.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapour pressure	Not applicable

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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Relative vapour density	Not applicable
Density	1,65 g/cm <sup>3</sup> at 20 °C
Relative density	No information available.
Water solubility	330 g/l at 24 °C
Partition coefficient: n-octanol/water	log Pow: -2,15 (Lit.) Bioaccumulation is not expected.
Auto-ignition temperature	No information available.
Decomposition temperature	> 192 °C
Viscosity, dynamic	at 20 °C Not applicable
Explosive properties	Not classified as explosive.
Oxidizing properties	none

## 9.2 Other data

Ignition temperature	380 °C
Bulk density	ca.500 - 900 kg/m <sup>3</sup>

---

## SECTION 10. Stability and reactivity

### 10.1 Reactivity

Reducing agents  
Risk of dust explosion.

### 10.2 Chemical stability

sensitive to moisture  
Sensitivity to light  
Sensitive to air.

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:  
Aluminium, Copper alloys, Zinc, metal ions, Oxidizing agents, Copper, Acids, bases

### 10.4 Conditions to avoid

Strong heating (decomposition).

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
P-3K

---

## 10.5 Incompatible materials

no information available

## 10.6 Hazardous decomposition products

no information available

---

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### *Acute oral toxicity*

LD50 Rat: 11.900 mg/kg (RTECS)

#### *Acute inhalation toxicity*

This information is not available.

#### *Acute dermal toxicity*

This information is not available.

#### *Skin irritation*

Rabbit

Result: No irritation

OECD Test Guideline 404

#### *Eye irritation*

Rabbit

Result: slight irritation

OECD Test Guideline 405

#### *Sensitisation*

This information is not available.

#### *Germ cell mutagenicity*

This information is not available.

#### *Carcinogenicity*

This information is not available.

#### *Reproductive toxicity*

This information is not available.

#### *Teratogenicity*

This information is not available.

#### *Specific target organ toxicity - single exposure*

This information is not available.

#### *Specific target organ toxicity - repeated exposure*

This information is not available.

#### *Aspiration hazard*

This information is not available.

### 11.2 Further information

Substances which occur in nature

Chronic uptake results in damage of:



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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Method: photometric, PMB 0.5 - 25.0 mg/l PO<sub>4</sub>-P  
1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
P-3K

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Kidney

However, when the product is handled appropriately, hazardous effects are unlikely to occur.

Handle in accordance with good industrial hygiene and safety practice.

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## SECTION 12. Ecological information

### 12.1 Toxicity

*Toxicity to fish*

LC50 *Oncorhynchus mykiss* (rainbow trout): 1.020 mg/l; 96 h

OECD Test Guideline 203 acidic

*Toxicity to daphnia and other aquatic invertebrates*

EC50 *Daphnia magna* (Water flea): 360 mg/l; 48 h (External MSDS)

*Toxicity to algae*

IC50 *Desmodesmus subspicatus* (green algae): 1.750 mg/l; 72 h (External MSDS)

*Toxicity to bacteria*

EC50 *Pseudomonas putida*: 140 mg/l; 16 h (External MSDS)

### 12.2 Persistence and degradability

*Biodegradability*

97 %; 5 d

OECD Test Guideline 302B

Readily eliminated from water

*Ratio BOD/ThBOD*

BOD<sub>28</sub> 65 %

Closed Bottle test

BOD<sub>5</sub> 48 %

Closed Bottle test

### 12.3 Bioaccumulative potential

*Partition coefficient: n-octanol/water*

log Pow: -2,15

(Lit.) Bioaccumulation is not expected.

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

### 12.6 Other adverse effects

*Additional ecological information*

Discharge into the environment must be avoided.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 114729  
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Method: photometric, PMB 0.5 - 25.0 mg/l PO<sub>4</sub>-P  
1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
1.1 - 57.3 mg/l P<sub>2</sub>O<sub>5</sub> Spectroquant®  
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## SECTION 13. Disposal considerations

### Waste treatment methods

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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## SECTION 14. Transport information

### Land transport (ADR/RID)

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** yes  
Tunnel restriction code E

### Inland waterway transport (ADN)

Not relevant

### Air transport (IATA)

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** no

### Sea transport (IMDG)

**14.1 UN number** UN 3316  
**14.2 Proper shipping name** CHEMICAL KIT  
**14.3 Class** 9  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 114729  
Product name Phosphate Cell Test (o-phosphate and total phosphorous)  
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1.5 - 76.7 mg/l PO<sub>4</sub><sup>3-</sup>  
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**14.6 Special precautions for user** yes

EmS F-A S-P

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not relevant

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

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## SECTION 15. Regulatory information

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

#### *EU regulations*

Major Accident Hazard 96/82/EC  
Legislation Directive 96/82/EC does not apply

SEVESO III  
Not applicable

Regulation (EC) No 1005/2009 on substances not regulated  
that deplete the ozone layer

Regulation (EC) No 850/2004 of the not regulated  
European Parliament and of the Council of 29  
April 2004 on persistent organic pollutants  
and amending Directive 79/117/EEC

Substances of very high concern (SVHC) This product does not contain  
substances of very high concern  
according to Regulation (EC) No  
1907/2006 (REACH), Article 57  
above the respective regulatory  
concentration limit of  $\geq 0.1\%$   
(w/w).

#### *National legislation*

Storage class 5.1B  
The data applies to the entire pack.

Dust explosion class St1

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

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## SECTION 16. Other information

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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## Merck (company-internal/in-house) Occupational Exposure Limit (Merck OEL)

Internal company value 2 mg/m<sup>3</sup>

Short Term Exposure (15 min) Factor 4

Pregnancy risk groups C

There is no reason to fear damage to the embryo, or foetus when the Merck OEL value is observed.

## Full text of H-Statements referred to under sections 2 and 3.

### Training advice

Provide adequate information, instruction and training for operators.

### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

### Regional representation

This information is given on the authorised Safety Data Sheet for your country.

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*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*

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