

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

### 1.1 Product identifier

**Product Number:** Part of Article No. A-85.420.100, A-85.420.130, A-85.420.131, A-85.420.200, A-85.420.230, A-85.420.231

**Product name** Reagent 1a for COPRA Silica/Phosphate  
Ammonium heptamolybdate tetrahydrate

**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.

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

**Identified uses** Reagent for the determination of Silica and o-Phosphate for laboratory use only

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

**Company:** SWAN Analytische Instrumente AG, CH-8340 Hinwil  
Phone: +41 44 943 63 00 / Fax: +41 44 943 63 01  
E-Mail: info@swan.ch

### 1.4 Emergency Telephone number

Swiss Toxicological Information Center  
CH-8032 Zürich  
Phone: +41 44 251 51 51 (international)

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## 2. Hazards Identification

*Risk advice to man and the environment*

Not a dangerous substance according to GHS.

This substance is not classified as dangerous according to European Union legislation.

*Precautionary statements*

P202 Do not handle until all safety precautions have been read and understood

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## 3. Composition/information on ingredients

**Formula**  $(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} \cdot 4 \text{H}_2\text{O}$   $\text{H}_{24}\text{Mo}_7\text{N}_6\text{O}_{24} \cdot 4 \text{H}_2\text{O}$  (Hill)

**CAS-No.** 12054-85-2

**EC-No.** 234-722-4

**Molar mass** 1.235,86 g/mol

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## 4. First aid measures

After inhalation: fresh air.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact: rinse out with plenty of water.

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

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## 5. Fire-fighting measures

### *Suitable extinguishing media*

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

### *Specific hazards during fire fighting*

Not combustible.

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

Fire may cause evolution of:

nitrogen oxides.

### *Special protective equipment for fire-fighters*

Do not stay in dangerous zone without self-contained breathing apparatus.

### *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.

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## 6. Accidental release measures

### *Personal precautions*

Avoid generation of dusts; do not inhale dusts.

### *Environmental precautions*

Do not empty into drains.

### *Methods for cleaning up*

Take up dry. Forward for disposal. Rinse away remainder with water.

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## 7. Handling and storage

### **Handling**

#### *Advice on safe handling*

No further requirements.

### **Storage**

#### *Further information on storage conditions*

Tightly closed. Dry.

Without limitations.

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## 8. Exposure controls/personal protection

### Personal protective equipment

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.

#### *Respiratory protection*

required when dusts are generated

#### *Eye protection*

required

#### *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)).

#### *Hygiene measures*

Change contaminated clothing. Wash hands after working with substance.

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## 9. Physical and chemical properties

Form	solid
Colour	colourless
Odour	ammoniacal
pH	ca. 5,3 at 50 g/l 20 °C
Viscosity, dynamic	no data available
Melting point	90 °C Elimination of water of crystallization
Boiling point/boiling range	not applicable
Ignition temperature	no data available
Flash point	no data available
Oxidizing properties	no data available

Flammability	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Relative vapour density	no data available
Density	2,498 g/cm <sup>3</sup> at 20 °C
Bulk density	ca.800 kg/m <sup>3</sup>
Solubility/qualitative	no data available
Water solubility	400 g/l at 20 °C
Partition coefficient: n-octanol/water	no data available
Evaporation rate	no data available

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## 10. Stability and reactivity

*Conditions to avoid*  
Heating (decomposition).

*Materials to avoid*  
Generates dangerous gases or fumes in contact with:  
Strong acids

*Hazardous decomposition products*  
in the event of fire: See chapter 5.

*Thermal decomposition*  
190 °C

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## 11. Toxicological information

*Further information*  
The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting, diarrhoea. Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, haemolysis.

Symptoms of an acute molybdenum(VI) intoxication: diarrhoea, anaemia (decreased haemoglobin concentration in the blood), fatigue. Toxic effect on liver and kidneys after high doses.

Handle in accordance with good industrial hygiene and safety practice.

## 12. Ecological information

### *Additional ecological information*

We have no quantitative data concerning the ecological effects of this product.

### *Further information on ecology*

Do not allow to enter waters, waste water, or soil!

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## 13. Disposal considerations

### *Product*

Chemicals must be disposed of in compliance with the respective national regulations. Under [www.retrologistik.de](http://www.retrologistik.de) you will find country- and substance-specific information as well as contact partners.

### *Packaging*

Product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. Under [www.retrologistik.de](http://www.retrologistik.de) you will find special information on the respective national conditions as well as contact partners.

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## 14. Transport information

Not classified as dangerous in the meaning of transport regulations.

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## 15. Regulatory information

### **Labelling according to EC Directives**

#### *Further information*

The product does not need to be labelled in accordance with EC directives or respective national laws.

### **National legislation**

Storage class VCI: 10 - 13 Other liquids and solids

Major Accident Hazard Legislation: 96/82/EC Update: 2003  
Directive 96/82/EC does not apply

Water contaminating class (Germany): WGK 1 slightly water endangering

### **U.S. Federal regulations**

United States inventory (TSCA 8b): This material is listed or exempted.

TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Ammonium Molybdate

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Ammonium Molybdate: Immediate (acute) health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

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## 16. Other information

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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.