

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 31.01.2011

Version 8.1

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

1.1 Product identifier

Catalogue No.	105153
Product name	Potassium sulfate for analysis EMSURE® ACS,ISO,Reag. Ph Eur
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 analysis For additional information on uses please refer to the Merck Chemicals portal (www.merck-chemicals.com).
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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	EQ-RS * e-mail: prodsafe@merck.de

1.4 Emergency telephone number **Please contact the regional Merck representation in your country.**

2. Hazards identification

2.1 Classification of the substance or mixture

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

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)
Not a dangerous substance according to GHS.

CAS-No. 7778-80-5

Labelling (67/548/EEC or 1999/45/EC)

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

EC-No. 231-915-5

2.3 Other hazards

None known.

3. Composition/information on ingredients

Formula	K ₂ SO ₄	K ₂ O ₄ S (Hill)
CAS-No.	7778-80-5	
EC-No.	231-915-5	

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 105153
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Molar mass 174,26 g/mol

4. First aid measures

4.1 Description of 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: 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 toxic symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

5. Fire-fighting 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.

Fire may cause evolution of:

Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire, wear 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.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid substance contact. Avoid inhalation of dusts. 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 empty into drains.

6.3 Methods and materials for containment and cleaning up

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

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 105153
Product name Potassium sulfate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

Observe possible material restrictions (see sections 7.2 and 10.5).
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.

7. Handling and storage

7.1 Precautions for safe handling

Observe label precautions.

7.2 Conditions for safe storage, including any incompatibilities

Tightly closed. Dry.

Storage temperature: no restrictions.

7.3 Specific end uses

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

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.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

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.

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 105153
Product name Potassium sulfate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

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).

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 empty into drains.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	solid
Colour	colourless
Odour	odourless
Odour Threshold	No information available.
pH	5,5 - 8,5 at 50 g/l 20 °C
Melting point	1.069 °C
Boiling point/boiling range	1.689 °C at 1.013 hPa
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	not applicable
Relative vapour density	No information available.
Relative density	2,66 g/cm ³ at 20 °C
Water solubility	111 g/l at 20 °C

SAFETY DATA SHEET
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Partition coefficient: n-octanol/water	not applicable
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	No information available.
Oxidizing properties	No information available.

9.2 Other data

Ignition temperature	not applicable
Bulk density	ca.800 kg/m ³

10. Stability and reactivity

10.1 Reactivity

See section 10.3.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

increased reactivity with:

Aluminium

Risk of explosion with:

sodium, acetylidene

magnesium

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

no information available

10.6 Hazardous decomposition products

in the event of fire: See chapter 5.

11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

LD50 rat

Dose: 6.600 mg/kg

(RTECS)

Specific target organ toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 105153
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Specific target organ toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Based on available data the classification criteria are not met.

11.2 Further information

Further information

After uptake of large quantities:

Symptoms in:

Gastrointestinal tract

Further data:

Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

12.1 Toxicity

Toxicity to fish

LC50

Species: Pimephales promelas (fathead minnow)

Dose: 680 mg/l

Exposure time: 96 h

(ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates.

EC50

Species: Daphnia magna (Water flea)

Dose: 890 mg/l

Exposure time: 48 h

(IUCLID)

Toxicity to algae

IC50

Species: Desmodesmus subspicatus (green algae)

Dose: 2.900 mg/l

Exposure time: 72 h

(IUCLID)

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

not applicable

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

Do not allow to run into surface waters, wastewater, or soil.

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 105153
Product name Potassium sulfate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

13. Disposal considerations

Waste treatment methods

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

14. Transport information

Not classified as dangerous in the meaning of transport regulations.

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

National legislation

Storage class VCI	10 - 13 Other liquids and solids
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15.2 Chemical Safety Assessment

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

16. Other information

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.

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.