

Safety Data Sheet



According to EC Directive 91/155/EEC

Date of issue: 28.01.2003 Supersedes edition of 15.02.2000

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

Identification of the product

Catalogue No.: 102161

Product name: Calcium sulfate dihydrate precipitated GR for analysis ACS

Use of the substance/preparation

Reagent for analysis

Chemical production (general)

Company/undertaking identification

Company: Merck KGaA * 64271 Darmstadt * Germany * Phone: +49 6151 72-0

Emergency telephone No.: Please contact the regional Merck representation in your country.

2. Composition/information on ingredients

CAS-No.: 10101-41-4

M: 172.17 g/mol

EC-No.: 231-900-3

Formula Hill: $\text{CaO}_4\text{S} * 2 \text{H}_2\text{O}$

Chemical formula: $\text{CaSO}_4 * 2 \text{H}_2\text{O}$

3. Hazards identification

No hazardous product as specified in Directive 67/548/EEC.

4. First aid measures

After inhalation: fresh air.

After skin contact: wash off with water.

After eye contact: rinse out with water.

After swallowing (large amounts): consult doctor if feeling unwell.

5. Fire-fighting measures

Suitable extinguishing media:

In adaption to materials stored in the immediate neighbourhood.

Special risks:

Non-combustible.

Other information:

Prevent fire-fighting water from entering surface water or groundwater.

6. Accidental release measures

Person-related precautionary measures:

Avoid generation of dusts; do not inhale dusts.

Environmental-protection measures:

Do not allow to enter sewerage system.

Procedures for cleaning / absorption:

Take up dry. Forward for disposal. Clean up affected area.

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7. Handling and storage

Handling:

No further requirements.

Storage:

Tightly closed. Dry. Storage temperature: no restrictions.

8. Exposure controls/personal protection

Personal protective equipment:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection: required when dusts are generated.

Eye protection: required

Hand protection:

In full contact:

Glove material: nitrile rubber
Layer thickness: 0.11 mm
Breakthrough time: > 480 Min.

In splash contact:

Glove material: nitrile rubber
Layer thickness: 0.11 mm
Breakthrough time: > 480 Min.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example KCL 740 Dermatril® (full contact), 740 Dermatril® (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 and supplied by us as well as to the purpose specified by us. 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).

Industrial hygiene:

Wash hands after working with substance.

9. Physical and chemical properties

Form: solid

Colour: colourless

Odour: odourless

pH value

at 50 g/l H₂O

(20 °C)

7.0

(slurry)

Melting point not available

Boiling point not applicable

Ignition temperature not applicable

Flash point not applicable

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Explosion limits	lower	not applicable
	upper	not applicable
Vapour pressure		not applicable
Density	(20 °C)	2.32 g/cm ³
Bulk density		~ 400-600 kg/m ³
Solubility in water	(20 °C)	~ 2 g/l
Thermal decomposition		> 140 °C (release of crystalline water)

10. Stability and reactivity*Conditions to be avoided*

no information available

Substances to be avoided

no information available

Hazardous decomposition products

no information available

Further information

releases water of crystallization when heated.

11. Toxicological information*Acute toxicity*LD₅₀ (oral, rat): >10000 mg/kg.

Specific symptoms in animal studies:

Eye irritation test (human): No irritation.

Skin irritation test (human): No irritation.

Subacute to chronic toxicity

Sensitization:

Experience in man: No sensitizing effect.

Bacterial mutagenicity: Ames test: negative.

Further toxicological information

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

Further data

The product should be handled with the care usual when dealing with chemicals.

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12. Ecological information

Biologic degradation:
Methods for the determination of biodegradability are not applicable to inorganic substances.

Ecotoxic effects:
Biological effects:
Fish toxicity: *L.macrochirus* LC₅₀: 2980 mg/l /96 h.

Further ecologic data:
The following applies to sulfate in general: biological effects: fish: toxic as from 7 g/l ;
bacteria: toxic as from 2.5 g/l .

No ecological problems are to be expected when the product is handled and used with due care and attention.

13. Disposal considerations*Product:*

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

Packaging:

Merck 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 you will find special information on the respective national conditions as well as contact partners.

14. Transport information

Not subject to transport regulations.

15. Regulatory information*Labelling according to EC Directives*

Symbol: ---
R-phrases: ---
S-phrases: ---

16. Other information*Reason for alteration*

Chapter 8: specific control parameter.
Chapter 8: personal protective equipment.
Chapter 9: change/addition in physical/chemical properties.
Chapter 11: toxicological information.
Chapter 12: ecological information.

General update.

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 characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.