



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

Version 2.1  
Revision date: 06.06.2012

Reservoir H2O

Material: 346561-8074-000  
Print Date 06.06.2012

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

Trade name : Gas reservoir, contains: magnesium sulfate heptahydrate  
Manufacturer/supplier : Carl Zeiss Microscopy GmbH  
Address : Carl-Zeiss-Straße 22  
D-73447 Oberkochen  
Telephone : +49 7364 20-0  
Technical Information : Chemical and material engineering  
Telephone : +49 7364 20-4599  
Telefax : +49 7364 20-4521  
Product Safety : Chemical and material engineering  
Mailto : zeih@zeiss.de, hamm@zeiss.de  
Emergency telephone number : Poisoning Control Center  
Telephone : +49 551 19240 (24 hours)

#### Use of the Substance / Preparation

Sector : Laboratory areas in industry and business, Research and Development  
Application category : Industrial use, Professional use  
Use : Gas reservoir for vacuum applications

### 2. Hazards identification

#### Classification according to Regulation (EC) No. 1272/2008 (GHS) <sup>1</sup>

Not a dangerous substance according to GHS.

#### Classification according to Directive 67/548/EEC or Directive 1999/45/EC <sup>2</sup>

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

For footnotes, see section 16.

### 3. Composition / information on ingredients

#### Information on the substance / preparation (mixture)

Magnesium sulfate heptahydrate

Synonyms : Epsom salt  
EC-No. : 231-298-2  
CAS-No. : 10034-99-8

### 4. First aid measures

Inhalation : Provide with fresh air.  
Skin contact : Wash off with plenty of water. Remove and wash contaminated clothing before re-use.



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Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.  
Ingestion : Drink 1 or 2 glasses of water. If symptoms persist, call a physician.

### 5. Fire-fighting measures

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Hazards caused by the substance/combustion products/origin of gases : The product itself does not burn. Ambient fire may liberate hazardous vapours. The following may develop in event of fire: Sulphur oxides  
Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Other data : Contain escaping vapours with water. Avoid extinguishing water reaching water or ground water system.

### 6. Accidental release measures

Personal precautions : Avoid dust formation. Do not breathe dust.  
Environmental precautions : Do not let product enter drains.  
Removal : Take up mechanically and dispose of according to the local legal regulations. Clean contaminated surface thoroughly.

### 7. Handling and storage

#### Handling

Safe handling advice : No special handling advice required.

#### Storage

Requirements for storage areas and containers : Keep tightly closed. Keep in a dry place. Storage temperature: no restrictions.

### 8. Exposure controls / personal protection

#### Exposure limit(s)

Remarks : None.

#### Occupational exposure controls

Protective measures : 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.  
Hygiene measures : Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.



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- Respiratory protection : Required if dust is formed. Respiratory mask with filter model P1 (EN 143).
- Hand protection : Avoid contact with skin. Use protective gloves which have been adapted to the respective purpose and are appropriately resistant to chemicals (DIN EN 374).
- : Glove material: Nitrile rubber  
Layer thickness: 0,11 mm  
Break through time: > 480 min
- Eye protection : Avoid contact with eyes, if necessary wear eye protection.

**Environmental exposure controls**

- Additional advice : see section 6

**9. Physical and chemical properties**

**General Information**

- Form : solid  
Colour : colourless  
Odour : odorless

**Important Health Safety and Environmental Information**

- Flash point : does not flash  
Ignition temperature : does not ignite  
Upper explosion limit : not applicable  
Lower explosion limit : not applicable  
Density : 1,68 g/cm<sup>3</sup> at 20 °C  
Density : ca. 900 kg/m<sup>3</sup>  
Bulk density  
Water solubility : 710 g/l soluble at 20 °C  
pH : 5 - 8 at 50 g/l at 25 °C

**10. Stability and reactivity**

- Thermal decomposition : > 150 °C Release of crystalline water  
Thermal decomposition : 1.124 °C anhydrous substance  
Conditions to avoid : Heating.  
Materials to avoid : None known.  
Hazardous decomposition products in the event of fire : Sulphur oxides  
Additional advice : Releases water of crystallization when heated.

**11. Toxicological information**



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Ingestion : Toxic effects are only to be expected at very high doses. After swallowing of large amounts: nausea, vomiting, diarrhoea. When the product is handled appropriately, hazardous effects are unlikely to occur.

**General Information**

Other information on toxicity : Quantitative data on the toxicity of this product are not available. Therapeutically used substance. The product should be handled with the care usual when dealing with chemicals.

**12. Ecological information**

**Ecotoxicity**

Fish-toxicity : LC50 *Gambusia affinis*: 15.500 mg/l / 96 h  
Daphnia toxicity : EC50 *Daphnia magna* (Water flea): 1.700 mg/l / 24 h  
Algae toxicity : IC50 *Desmodesmus subspicatus*: 2.700 mg/l / 72 h  
Mikro-organism-toxicity : EC50 *Photobacterium phosphoreum*: 84.000 mg/l / 30 min

**Persistence and degradability**

Biological degradability : Methods for the determination of biodegradability are not applicable to inorganic substances.

**Other environmental data**

Other data : Ecological injuries are not known or expected under normal use.

**13. Disposal considerations**

Product : In accordance with local and national regulations, if applicable send back the empty reservoir for refilling.

**14. Transport information**

**Land transport ADR/RID**

Not classified as dangerous in the meaning of transport regulations.

**Sea transport IMDG**

Not classified as dangerous in the meaning of transport regulations.

**Air transport ICAO/IATA**



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Not classified as dangerous in the meaning of transport regulations.

## 15. Regulatory information

### Labelling according to Regulation (EC) No. 1272/2008 (GHS) <sup>1</sup>

Exempt

#### Other data

CAS-No.: 10034-99-8  
For footnotes, see section 16.

### Labelling according to Directive 67/548/EEC or Directive 1999/45/EC <sup>2</sup>

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

#### Other data

EC-No.: 231-298-2

For footnotes, see section 16.

#### EU-Regulations

Seveso Directive II : 96/82/EG: Does not fall under Seveso II - Directive / Major accident legislation

## 16. Other information

The information in this safety sheet is based on the data available at the time of compilation and is intended to describe the product with respect to the precautions to be taken in its use. This information is provided without any guarantee of the properties specified.

#### Update information

Relevant changes to the previous version are symbolized by vertical bars at the left edge.

Additions : Classification and Labelling according to GHS (Regulation 1272/2008)

#### Additional advice

Sources: Reg. 1272/2008, Annex VI, TRGS 900, TRGS 903, International dangerous goods regulations, Supplier details

#### Footnotes:

1] Obligatory for substances from December, 01, 2010, obligatory for mixtures from June, 01, 2015.

2] Valid for substances until November, 30, 2010, valid for preparations (mixtures) until May, 31, 2015.



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