

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 04.03.2010

Revision: 04.03.2010

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

- **Product details**
- **Molecular formula:**  $MgCl_2 \cdot 6H_2O$
- **Trade name:** Magnesium chloride
- **Article number:** CH0887
- **Application of the substance / the preparation** Laboratory Reagent.
- **Manufacturer/Supplier:**

Carlo Erba Reagenti  
Strada Rivoltana Km 6/7  
I-20090 Rodano  
Tel.: 0039 02 953251

Carlo Erba Reactifs - SDS  
Chaussée du Vexin  
Parc d'Affaires des Portes - BP616  
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- **Further information obtainable from:**  
Q.A / Normative  
email ITALY: MSDS\_CER@carloerbareagenti.com  
email FRANCE: MSDS\_CER-SDS@carloerbareactifs.com
- **Information in case of emergency:**  
CENTRO ANTIVELENI OSPEDALE CA GRANDA - NIGUARDA (MI)  
tel: 0039 02 66 10 10 29  
numéro d'appel d'urgence ORFILA: 01 45 42 59 59

## 2 Hazards identification

- **Hazard description:** Considered as non dangerous.
- **Information concerning to particular hazards to man and environment:** Considered as non dangerous.
- **Classification system:**  
The product don't has to be labelled due to the calculation procedure of the "General Classification guideline for Substances of the EU", Dir. 67/548/EC, in the latest valid version. Not particular hazardous to declare.
- **GHS label elements** Void

## 3 Composition/information on ingredients

- **Chemical characterization:**
- **CAS No. Description**  
7791-18-6 Magnesium chloride hexahydrate
- **Identification number(s)**
- **EINECS Number:** 232-094-6

## 4 First-aid measures

- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If some symptoms persist seek for medical advice.

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· **Information for doctor:** Show your the doctor this Material Safety Data Sheets.

## 5 Fire-fighting measures

· **General Information:**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

· **Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards caused by the substance, its products of combustion or resulting gases:**

Hydrogen chloride (HCl)

· **Protective equipment:** No special measures required.

## 6 Accidental release measures

· **General Information:** Use proper personal protective equipment as indicated in Section 8.

· **Person-related safety precautions:** If dust/ aerosols is formed, use personal protective equipment.

· **Measures for environmental protection:** No special measures required.

· **Measures for cleaning/collecting:**

Pick up mechanically.

For fine dusts use a vacuum cleaner.

· **Additional information:**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

· **Handling:**

· **Information for safe handling:**

Avoid formation of dust and aerosols.

Adopt adequate ventilation at places where you develop dust.

· **Information about fire - and explosion protection:** No special measures required.

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Unsuitable material for receptacle: aluminium.

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** None.

## 8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:** TLV not established.

· **Additional information:** The lists valid during the making were used as basis.

· **Personal protective equipment:** -

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

· **Respiratory protection:** Not required.

· **Protection of hands:**

The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

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· **Material of gloves**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Chemical safety goggles.

· **Body protection:**

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

## 9 Physical and chemical properties

· **Molecular weight**

203.31 g

· **Form:**

Crystalline

· **Colour:**

Colourless

· **Odour:**

Odourless

· **Change in condition**

**Melting point/Melting range:** 117°C

**Boiling point/Boiling range:** ->H<sub>2</sub>O >110°C

· **Flash point:**

Not applicable.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density at 20°C:**

1.56 g/cm<sup>3</sup>

· **Solubility in / Miscibility with**

**water at 20°C:** 1670 g/l

## 10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Materials to be avoided:**

· **Dangerous reactions** No dangerous reactions known.

· **Dangerous decomposition products:** Hydrogen chloride (HCl)

## 11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

Oral	LD50	8100 mg/kg (rat)
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· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No relevant irritating effects.

· **Ingestion:** It can be harmful if swallowed.

· **Inhalation:** May be harmful if inhaled.

· **Sensitization:** No sensitizing effects known.

· **Other information (about experimental toxicology):** No more relevant data available.

· **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

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The substance is not subject to classification according to the latest version of the EU lists.

## 12 Ecological information

- **Information about elimination (persistence and degradability):**
- **Method**
- **Ecological information** Not available
- **Ecotoxicological effects:**
- **Acquatic toxicity:** Foreseeable as non relevant.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water (German classification -WGK).

## 13 Disposal considerations

- **Product:**
- **Recommendation**  
Smaller quantities can be disposed of with household waste.  
Reutilise if possible or contact a waste processors for recycling or safe disposal.
- **Waste disposal key:**  
The European Union does not establish uniform rules for the disposal of chemical waste, which are special waste. Their treatment and elimination of the domestic legislation of each country. So, in each case, you should contact the relevant authorities, or those companies legally authorized for elimination of waste.  
2001/573/EC: Council Decision of 23 July 2001 amending the list of wastes contained in Decision 2000/532/EC.  
Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.
- **Uncleaned packaging:**  
The containers and packing materials contaminated with dangerous substances or preparations, have the same treatment products.  
Directive 94/62/EC of the European Parliament and the Council of 20 December 1994 on packaging and packaging waste.
- **Recommendation:**  
Disposal must be made according to official regulations.  
Packagings that may not be cleansed are to be disposed of in the same manner as the product.  
Wash with water to be treated before disposal.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** Not classified - non dangerous product
- **Maritime transport IMDG:**
- **IMDG Class:** Not classified - non dangerous product
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** Not classified - non dangerous product
- **UN "Model Regulation":** ADR 2009 - Italian Official Translation, ed. ARS IT editions

## 15 Regulatory information

- **Labelling according to EU guidelines:**  
The product has been classified and marked in according to the calculation procedure of the "General Classification guideline for Substances of the EU", DIR. 67/548/EC, in the latest valid version.  
Observe the general safety regulations when handling chemicals.

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- **Code letter and hazard designation of product:** Not classified - non dangerous product
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**  
Maximum allowed concentration in waste water (Italian regulation): Cl- 1200 mg/l

## **16 Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing MSDS:** Q.A / Normative

- **Contact:**

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- **References**

ECDIN (Environmental Chem. Data and Information Network)

IUCLID (International Uniform Chemical Information Database)

NIOSH - Registry of Toxic Effects of Chemical Substances

Roth - Wassergefährdende Stoffe

Verschuieren - Handbook of Environmental Data on Organic Chemicals

ChemDAT - Safety Data Sheets from E.Merck on CD-ROM

Merian - Metals and their compounds in the environment

- **Sources**

DIR. 67/548/EC, in the latest valid version.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006, REACH.

Regulation (EC) N° 1272/2008 of the European Parliament and of the Council of 16 December 2008, CLP, in the latest valid version.

Globally Harmonized System, GHS

GB