

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 28.11.2011

Version number 1

Revision: 08.01.2009

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

- **1.1. Product identifier**
- **Trade name:** Calcium chloride
- **Article number:** 15585
- **CAS Number:**  
10043-52-4
- **EC number:**  
233-140-8
- **Index number:**  
017-013-00-2
- **1.2. Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Laboratory chemicals
- **1.3. Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SERVA Electrophoresis GmbH  
Carl-Benz-Str. 7  
D-69115 Heidelberg  
Tel.: +49 6221 13840-0  
FAX: +49 6221 13840-10  
msds.info@serva.de
- **Information department:** Product Safety department Tel.: +49 6221 13840-35
- **1.4. Emergency telephone number:** +49 6131 19240 (university hospital Mainz)

**SERVA**  
Electrophoresis

## 2 Hazards identification

- **2.1. Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36: Irritating to eyes.

- **Classification system:**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

- **2.2. Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

- **Hazard pictograms** GHS07

- **Signal word** Warning

- **Hazard statements**

H319 Causes serious eye irritation.

- **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash thoroughly after handling.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

- **2.3. Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

(Contd. on page 2)

-GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 28.11.2011

Version number 1

Revision: 08.01.2009

Trade name: Calcium chloride

(Contd. of page 1)

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

#### · 3.1. Chemical characterization: Substances

##### · CAS No. Description:

10043-52-4 calcium chloride

##### · Identification number(s):

· EC number: 233-140-8

· Index number: 017-013-00-2

##### · Description:

· Empirical formula: Ca Cl<sub>2</sub>

· MW: 111,0

### 4 First aid measures

#### · 4.1. Description of first aid measures

· **After inhalation** Supply fresh air; consult doctor in case of complaints.· **After skin contact** Immediately rinse with water.· **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.· **After swallowing** Drink copious amounts of water and provide fresh air. Call for doctor immediately.

#### · Information for doctor

#### · 4.2. Most important symptoms and effects, both acute and delayed

No further relevant information available.

#### · 4.3. Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### 5 Firefighting measures

#### · 5.1. Extinguishing media

· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

#### · 5.2. Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Hydrogen chloride (HCl)

#### · 5.3. Advice for firefighters

· **Protective equipment:** Wear self-contained respiratory protective device.

### 6 Accidental release measures

· **6.1. Personal precautions, protective equipment and emergency procedures** Wear protective clothing.· **6.2. Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

#### · 6.3. Methods and material for containment and cleaning up:

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

#### · 6.4. Reference to other sections

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### 7 Handling and storage

#### · Handling

#### · 7.1. Precautions for safe handling

Prevent formation of dust.

Ensure good ventilation/exhaustion at the workplace.

(Contd. on page 3)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 28.11.2011

Version number 1

Revision: 08.01.2009

**Trade name: Calcium chloride**

(Contd. of page 2)

- **Information about protection against explosions and fires:** The product is not flammable
- **7.2. Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
  - Keep receptacle tightly sealed.
  - This product is hygroscopic.
  - Protect from humidity and water.
- **7.3. Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1. Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2. Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes and skin.
- **Breathing equipment:**
  - Short term filter device:
  - Filter P2.
- **Protection of hands:**
  - Protective gloves.
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
  - 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.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
  - Natural rubber, NR
  - Nitrile rubber, NBR
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

## 9 Physical and chemical properties

- **9.1. Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Powder
<b>Colour:</b>	White

(Contd. on page 4)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 28.11.2011

Version number 1

Revision: 08.01.2009

**Trade name: Calcium chloride**

(Contd. of page 3)

· <b>Odour:</b>	Odourless
· <b>pH-value (100 g/l) at 20°C:</b>	8.0 - 10.0
· <b>Change in condition</b> <b>Melting point/Melting range:</b> 772°C <b>Boiling point/Boiling range:</b> > 1600°C	
· <b>Flash point:</b>	Not applicable
· <b>Flammability (solid, gaseous)</b>	Product is not flammable.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Density at 20°C:</b>	2.15 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with</b> <b>Water at 20°C:</b>	740 g/l
· <b>9.2. Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **10.1. Reactivity**
- **10.2. Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3. Possibility of hazardous reactions** No dangerous reactions known
- **10.4. Conditions to avoid** No further relevant information available.
- **10.5. Incompatible materials:** No further relevant information available.
- **10.6. Hazardous decomposition products:** No dangerous decomposition products known

### 11 Toxicological information

- **11.1. Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Oral	LD50	1000 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.

### 12 Ecological information

- **12.1. Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **12.2. Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **12.3. Bioaccumulative potential** No further relevant information available.
- **12.4. Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5. Results of PBT and vPvB assessment**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.

(Contd. on page 5)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 28.11.2011

Version number 1

Revision: 08.01.2009

**Trade name: Calcium chloride**

(Contd. of page 4)

- **12.6. Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **13.1. Waste treatment methods**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- **14.1. UN-Number**  
· **ADR, ADN, IMDG, IATA** Void
- **14.2. UN proper shipping name**  
· **ADR, ADN, IMDG, IATA** Void
- **14.3. Transport hazard class(es)**  
· **ADR, ADN, IMDG, IATA**  
· **Class** Void
- **14.4. Packing group**  
· **ADR, IMDG, IATA** Void
- **14.6. Special precautions for user** Not applicable.
- **14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information:** Not dangerous according to the above specifications.
- **UN "Model Regulation":** -

### 15 Regulatory information

- **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Water hazard class:** Water hazard class 1 (Assessment by list): slightly hazardous for water.
- **15.2. Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 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:** Product safety department
- **Contact:** +49 6221 13840-35
- **Abbreviations and acronyms:**  
PBT: persistent, bioaccumulative, toxic substance (REACH)  
vPvB: very persistent, very bioaccumulative substance (REACH)  
REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals  
CLP: Regulation on classification, labelling and packaging of substances and mixtures  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 28.11.2011

Version number 1

Revision: 08.01.2009

**Trade name: Calcium chloride**

(Contd. of page 5)

*IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**ICAO: International Civil Aviation Organization**GHS: Globally Harmonized System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent***\* Data compared to the previous version altered.**

GB