

## 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

**Product name:** Magnesium Chloride

**REACH Registration No.:** This product is exempted from the obligation to register in accordance to Reg. (EC) 1907/2006 (natural mineral not modified chemically).

**Relevant identified uses of the substance or mixture and uses advised against:** Industrial flooring, abrasive and textile industry, water treatment, fertilizer mixtures, animal feed, oil drilling, ice and dust control.

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## 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture:**

**Classification in accordance with Regulation (EC) No 1272/2008 (CLP/GHS):** Not classified.

**Classification in accordance with Directive 67/548/EEC, 1999/45/EC:** Not classified.

**Label elements:** Not subject to labelling in accordance with Regulation (EC) No. 1272/2008 (CLP).

**Other hazards:** None.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	Weight %	Index No.	EC No.	EU Classification
Magnesium Chloride Hexahydrate 7791-18-6	min 98		2320946 (anhydrous CAS 7786-30-3)	None
Calcium Chloride 10043-52-4	2.2 max.	017-013-00-2	233-140-8	Eye irrit: 2 H319 (in accordance with CLP 1272/2008) Xi; R36 (in accordance with DSD 67/548/EEC)

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Components	Weight %	Index No.	EC No.	EU Classification
Sodium Chloride	0.9 max.		231-598-3	
Potassium Chloride	0.6 max.		231.211.8	

### 4. FIRST AID MEASURES (SYMPTOMS)

<b>Eye contact:</b>	Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes. Get medical attention immediately.
<b>Skin contact:</b>	Take off contaminated clothing. Wash with water in case of irritation. Get medical attention if irritation occurs and persists.
<b>Inhalation:</b>	In case of dust inhalation or breathing fumes released from heated material, remove person to fresh air. Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.
<b>Ingestion:</b>	If swallowed, wash mouth thoroughly with plenty of water. Get medical attention immediately.
<b>NOTE:</b>	Never give an unconscious person anything to drink.

**Most important symptoms and effects, both acute and delayed:** None known.

**Indication of any immediate medical attention and special treatment needed:** Treat symptomatically and supportively. In case of ingestion, the salt level in blood must be determined.

### 5. FIRE-FIGHTING MEASURES

<b>Extinguishing media:</b>	Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions.
<b>Special hazards arising from the substance or mixture:</b>	When heated to decomposition, may release poisonous and corrosive fumes of HCl.
<b>Advice for fire-fighters:</b>	In closed stores, provide fire-fighters with self-contained breathing apparatus in positive pressure mode.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures:</b>	Wear protective clothing specified for normal operations (see Section 8).
<b>Environmental precautions:</b>	Avoid access to streams, lakes or ponds.
<b>Methods and materials for containment and cleaning up:</b>	Sweep up, place in a bag and hold for waste disposal or possible reuse.

### 7. HANDLING AND STORAGE

<b>Precautions for safe handling:</b>	Keep containers tightly closed.
<b>Conditions for safe storage, including any incompatibilities:</b>	Store in a dry, well-ventilated area away from incompatible materials (see section 10).

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#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

##### Control parameters:

Components	Weight %	ACGIH-TLV Data	UK (WEL)-TWA	Germany MAK (TRGS 900 data)
Magnesium Chloride Hexahydrate 7791-18-6	min 98	Not determined	Not determined	Not determined
Calcium Chloride 10043-52-4	2.2 max.	Not determined	Not determined	Not determined
Sodium Chloride 7647-14-5	0.9 max.	Not determined	Not determined	Not determined
Potassium Chloride 7447-40-7	0.6 max.	Not determined	Not determined	Not determined

##### Exposure controls:

**Ventilation requirements:** Good general ventilation.  
Ventilation must be sufficient to maintain TLV-TWA below 3mg/m<sup>3</sup>, respirable particles and 10mg/m<sup>3</sup>, inhalation particles (ACGIH recommendation for particles (insoluble or poorly soluble) not otherwise specified (PNOS)).

##### Personal protective equipment:

**Respiratory protection:** In case of significant or accidental dust emissions, dust mask should be worn.

**Hand protection:** Protective gloves.

**Eye protection:** Chemical safety goggles.

**Skin and body protection:** Body covering clothes and boots.

**Hygiene measures:** Do not eat, smoke or drink where material is handled, processed or stored. Wash hands thoroughly after handling and before eating or smoking. Safety shower and eye bath should be provided.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

##### Information on basic physical and chemical properties

<b>Appearance:</b>	White flakes
<b>pH:</b>	8.2 @ 10% aqueous solution.
<b>Melting point/range°C:</b>	118°C (244°F)
<b>Boiling point/range°C:</b>	Not applicable
<b>Flash point:</b>	Non-combustible.
<b>Vapour pressure:</b>	Not available.
<b>Relative density:</b>	1.6 g/cm <sup>3</sup> (20°C)
<b>Solubility in water:</b>	167g/100g

[cont...]

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### 10. STABILITY AND REACTIVITY

**Reactivity:** None known.

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** Not expected to occur.

**Conditions to avoid:** Exposure to moisture. Heating above decomposition temperature.

**Incompatible materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of: Potassium, Calcium, Magnesium and HCl.

### 11. TOXICOLOGICAL INFORMATION

#### Information on toxicological effects:

##### Acute toxicity:

**Rat oral LD50:** 8100 mg/kg (for MgCl<sub>2</sub>)

**Mouse oral LD50:** 7600 mg/kg (for MgCl<sub>2</sub>)

**Mutagenicity:** Not available.

**Carcinogenicity:** Not classified by IARC.  
Not included in NTP 12<sup>th</sup> Report on Carcinogens.

**Specific Target Organ Toxicity (STOT) Single exposure:** No data available.

**Specific Target Organ Toxicity (STOT) Repeat exposure:** No data available.

**Aspiration hazard:** Not expected to occur.

### 12. ECOLOGICAL INFORMATION

**Note:** MgCl<sub>2</sub> is a seawater component.

#### Toxicity:

**Aquatic toxicity:** No data available.

**Persistence and degradability:** Not relevant for inorganic salts.

**Bioaccumulative potential:** Not expected to bioaccumulate.

**Mobility in soil:** Not relevant for inorganic salts.

**Results of PBT and vPvB assessment:** Not considered to be PBT or vPvB.

**Other adverse effects:** None known.

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods:

**Waste disposal:** Dispose of in a safe manner in accordance with local/national regulations.

**Disposal of packaging:** Containers can be recycled after proper cleaning.

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**14. TRANSPORT INFORMATION**

**ADR/RID:** Not regulated.  
**IMDG:** Not regulated.  
**ICAO/IATA:** Not regulated.

**15. REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture:**

**EU:** All ingredients are listed in IECSC.  
Anhydrous MgCl<sub>2</sub> is reported EINECS.

**USA:** All the components of this substance are listed on or are exempt from the inventory.

**Australia:** All ingredients are listed in AICS.

**Canada:** All the components of this substance are listed on or are exempt from the inventory.

**China:**  
**Chine inventory:** All ingredients are listed in IECSC.

**Japan:** All ingredients are listed.

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

**16. OTHER INFORMATION**

**Legal disclaimer:** The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.