

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard 29 CFR 1910.1200 (GHS)

<b>Product name</b>	<b>MAG Flakes</b>	
<b>Product id</b>	8677-FL	
<b>Revision date</b>	18/07/2016	<b>Revision: 4</b>
<b>Supersedes</b>	04/07/2011	

## 1. Identification of the substance & the company

<b>Trade name</b>	MAG Flakes
<b>Chemical formula</b>	MgCl <sub>2</sub> *6H <sub>2</sub> O
<b>Type of product and use</b>	Ice and dust control
<b>Supplier</b>	Dead Sea Work LTD P.O.B. Beer Sheva 84100, Israel Tel: +972-8-6465347 Fax: +972-8-6280533 www.dsosalts.com
<b>Emergency Telephone</b>	972-8-9977577 Chemtrec: (800) 424-9300 Medical: PROSAR 1-888-875-1685 (24HRS)

## 2. Hazards identification

<b>GHS classification</b>	Not Classified
<b>Labels and other form of warning</b>	Not required.
<b>NFPA Ratings (Scale 0-4)</b>	Health = 0, Fire = 0, Reactivity = 0.

## 3. Composition / information on ingredients

Components	CAS No.	Weight %
Magnesium Chloride Hexahydrate	7791-18-6	>95

## 4. First-aid measures

<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>	Wash with water in case of irritation. Get medical attention if irritation occurs and persists.
<b>Inhalation</b>	In case of inhalation, remove person to fresh air. Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.

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**Ingestion** If swallowed, wash mouth thoroughly with plenty of water. Get medical attention immediately.

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NOTE: Never give an unconscious person anything to drink  
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**Most important symptoms and effects, acute or delayed**

None known

**Notes to the physician** In case of ingestion, the salt level in blood must be determined. Treat symptomatically and supportively.

## 5. Fire - fighting measures

**Suitable extinguishing media** Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions.

**Extinguishing media not to be used** None known.

**Unusual fire and explosion hazards** When heated to decomposition, may release poisonous and corrosive fumes of HCl

**Fire fighting procedure** In closed stores, provide fire-fighters with self-contained breathing apparatus in positive pressure mode.

## 6. Accidental release measures

**Personal precautions** Wear protective clothing specified for normal operations (see section 8).

**Methods for cleaning up** Sweep up, place in a bag and hold for waste disposal or possible reuse.

## 7. Handling and storage

**Handling** Keep containers tightly closed.

**Storage** Keep in a dry, well-ventilated place away from incompatible materials (see "materials to avoid").

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### 8. Exposure controls / personal protection

**Exposure Limits :**

Components	ACGIH-TLV Data	OSHA (PEL) Data
Magnesium Chloride Hexahydrate 7791-18-6	Not determined	Not determined

**Ventilation requirements**                      Good general ventilation.

**Personal protective equipment:**

- **Respiratory protection**                      Not normally required; In case of dust formation use an approved particulate respirator.
- **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

<b>Appearance</b>	White flakes
<b>Odor</b>	None.
<b>pH</b>	8.2 @ 10% aqueous solution
<b>Melting point/range</b>	118°C (244°F)
<b>Boiling point/range</b>	Not applicable
<b>Flash point</b>	Not relevant
<b>Evaporation rate (ether=1)</b>	Not applicable under standard conditions
<b>Flammability (solid, gas)</b>	Not flammable
<b>Flammable/Explosion limits</b>	Not applicable
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not determined
<b>Density</b>	1.6 g/cm <sup>3</sup> (20°C)
<b>Solubility:</b>	
- <b>Solubility in water</b>	167g/100g
<b>Partition coefficient (n-octanol/water)</b>	Not determined
<b>Auto-ignition temperature</b>	Not self-ignitable
<b>Decomposition temperature</b>	>160°C
<b>Viscosity</b>	Not available
<b>Bulk density</b>	800-900 kg/m <sup>3</sup>
<b>Explosive properties</b>	Not explosive
<b>Oxidising properties</b>	No oxidising properties can be predicted on the basis of chemical structure

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## 10. Stability and reactivity

<b>Reactivity</b>	No reactive hazards known/expected.
<b>Stability</b>	Stable under normal conditions
<b>Possibility of hazardous reactions</b>	Not expected to occur
<b>Conditions to avoid</b>	Exposure to moisture. Heating above decomposition temperature.
<b>Materials to avoid</b>	Oxidizing agents.
<b>Hazardous decomposition products</b>	HCl. Oxides of: potassium, calcium, magnesium, sodium

## 11. Toxicological information

**Acute toxicity:**

- Rat oral LD50	8100 mg/kg (for MgCl <sub>2</sub> )
- Mouse oral LD50	7600 mg/kg (for MgCl <sub>2</sub> )
- Dermal irritation (rabbit)	Not irritant
- Eye irritation (rabbit)	Not irritant
<b>Dermal sensitization</b>	Not a sensitizer
<b>Mutagenicity</b>	Not established
<b>Carcinogenicity</b>	Not classified by IARC Not included in NTP 11th Report on Carcinogens.
<b>Reproductive toxicity</b>	No adverse effect were observed on fertility and/or on the development
<b>Specific Target Organ Toxicity (STOT) - Single exposure</b>	No effects on specific target organs have been identified
<b>Specific Target Organ Toxicity (STOT) - Repeat exposure</b>	No effects on specific target organs have been identified
<b>Aspiration hazard</b>	Not expected to occur

## 12. Ecological information

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

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<b>Aquatic toxicity</b>	Not applicable
<b>Persistence and degradability</b>	Not relevant for inorganic salts
<b>Bioaccumulative potential</b>	Not expected to bioaccumulate
<b>Mobility in soil</b>	Expected to be mobile due to high solubility.
<b>Note:</b>	Not considered to be PBT or vPvB

### 13. Disposal considerations

<b>Waste disposal</b>	Observe all federal, state and local environmental regulations when disposing of this material.
<b>Disposal of Packaging</b>	Containers can be recycled after proper cleaning. Dispose of in a safe manner in accordance with local/national regulations.

### 14. Transportation information

DOT	Not regulated
IMDG	Not regulated
ICAO/IATA	Not regulated

### 15. Regulatory information

USA	Reported in the EPA TSCA Inventory.
Canada	Listed in DSL
EU	Anhydrous MgCl <sub>2</sub> is reported in EINECS
Japan	Listed in ENCS
Australia	Listed in AICS
New Zealand Inventory	Listed in NZIoC
China - China inventory	Listed
Taiwan	Listed
Philippines	Listed in PICCS

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### 16. Other information

**This data sheet contains changes from the previous version in section(s)**  
1,2,3,8,9,11,12,15

The information herein is based on the present state of our knowledge. It is believed to be correct but is not necessarily all-inclusive and shall be used only as a guide. DEAD SEA WORKS Ltd, shall not be held liable for any damage resulting from handling or from contact with the above product. For further information, contact DEAD SEA WORKS Ltd.

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**End of safety data sheet**