



WATER SPECIALIST SUPPLY CO.,LTD.

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## MATERIAL SAFETY DATA SHEET

### MAGNESIUM CHLORIDE

#### PRODUCT:MAGNESIUM CHLORIDE

#### SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

##### WATER SPECIALIST SUPPLY CO.,LTD.

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PREPARED BY..... Water Specialist Supply CO.,LTD  
PREPARATION DATE..... 22/August/16  
PRODUCT NAME.....Magnesium Chloride Hexahydrate Flakes  
CHEMICAL FORMULA.....MgCl<sub>2</sub>.  
PRODUCT USE.....Industrial flooring, abrasive and textile  
. industry, water treatment, fertilizer mixtures,  
. animal feed, oil drilling, Ice and dust control  
MOLECULAR WEIGHT.....203.31 g/mol.  
CHEMICAL FAMILY..... Inorganic salt .  
EMERGENCY PHONE NO..... (+66)34-440-851 to 3 or (+66)95-367-5790

#### SECTION 02 : COMPOSITION/INFORMATION ON INGREDIENT

Content Ingredients	Weight%	EC No.	EU classification
Magnesium Chloride Hexahydrate 7791-18-6	46.5-47	2320946 (anhydrous CAS 7786-30-3)	None
Calcium Chloride 10043-52-4	2.2	233-140-8	Xi;R36
Sodium Chloride 7647-14-5	0.9	231-598-3	None
Potassium Chloride 7447-40-7	0.6	231-211-8	None
Water of crystallization 7732-18-5	49.3-49.8	231-791-2	None

## SECTION 03: HAZARDS IDENTIFICATION

### Adverse human health effects :

May irritate eyes.

Not classified as dangerous.

Threshold Limits Value : No specific TLV has been established.

Nuisance Particulates TLV : No specific TLV has been established.

Effects of overexposure : avoid contact with eyes

Emergency Procedure : see section 04

## SECTION 04 : FIRST AID MEASURES

### Inhalation:

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.

### Skin Contact:

Wash with water in case of irritation. Get medical attention if irritation occurs and persists.

### Eye contact:

Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes. Get medical attention if irritation persists.

### Ingestion :

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

\*\*\*\*\*  
**NOTE: Never give an unconscious person anything to drink.**  
\*\*\*\*\*

### Notes to the physician :

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

## SECTION 05 : FIRE FIGHTING MEASURES

### Fire Fighting Procedure:

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

### Unusual Fire and Explosion Hazards:

When heated to decomposition, may release poisonous and corrosive fumes of HCl.

### Special Fire Fighting Procedure:

None .Product can be used to smother fire.

## SECTION 06 : 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 re-use.

## SECTION 07 : HANDLING AND STORAGE

### Handling :

Keep containers tightly closed. When removing this product (Magnesium Chloride) from its packing , the product first appears dry. Due to its hygroscopic nature, it readily takes on atmospheric moisture and softens rapidly.

The bagged material should be kept closed in a dry atmosphere. When stored under suitable conditions, Magnesium Chloride will keep for an almost unlimited period.

## SECTION 08 : EXPOSE CONTROL/PERSONAL PROTECTION

### Ventilation requirements :

Good general ventilation.

Ventilation must be sufficient to maintain TLV-TWA below 3 mg/m<sup>3</sup>, respirable particles, and 10 mg/m<sup>3</sup>, inhalable 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 carefully before eating or smoking.  
Safety shower and eye bath should be provided.

### Exposure limit

Components	ACGIH-TLV Data	OSHA (PEL) Data
Magnesium Chloride Hexahydrate 7791-18-6	Not determined	Not determined
Calcium Chloride 10043-52-4	Not determined	Not determined
Sodium Chloride 7647-14-5	Not determined	Not determined
Potassium Chloride 7447-40-7	Not determined	Not determined
Water of crystallization 7732-18-5	Not determined	Not determined

## SECTION 09 :PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State :</b>	Flakes Solid
<b>Color :</b>	White
<b>Molecular Weight:</b>	203.31 g/mol.
<b>Molecular Formula:</b>	MgCl <sub>2</sub> .
<b>Boiling Point :</b>	Not applicable
<b>Melting Point :</b>	118°C (244°F)
<b>Auto-ignition temperature :</b>	Not applicable
<b>Decomposition Point :</b>	>160°C
<b>Vapor Pressure :</b>	N/A
<b>Specific Gravity(Water =1):</b>	N/A
<b>Solubility in water :</b>	167g/100g
<b>Density :</b>	1.6 g/cm <sup>3</sup> (20°C)
<b>Bulk Density :</b>	800-900 kg/m <sup>3</sup>
<b>Water Solubility :</b>	1.2 g/100 g@25 C
<b>PH :</b>	8.2 @ 10% aqueous solution

## SECTION 10:STABILITY AND REACTIVITY

### **Stability:**

Stable at normal temperatures and pressure.

### **Conditions to Avoid :**

Exposure to moisture Heating above decomposition temperature.

### **Incompatibilities :**

oxidizing agents.

### **Hazardous Decomposition:**

Oxides of: potassium, calcium, magnesium, sodium and HCl.

### **Hazardous Polymerization :**

Will not occur.

## SECTION 11 : TOXICOLOGICAL INFORMATION

### Acute Toxicity Level :

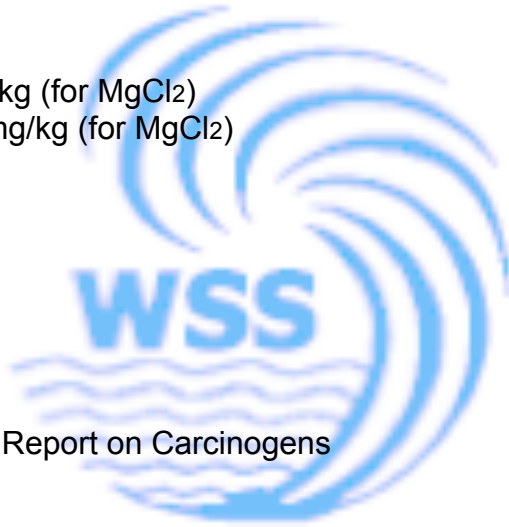
Rat oral LD50 :8100 mg/kg (for MgCl<sub>2</sub>)  
Mouse oral LD50 :7600 mg/kg (for MgCl<sub>2</sub>)

### Mutagenicity :

Not available.

### Carcinogenicity :

Not classified by IARC  
Not included in NTP 11th Report on Carcinogens



## SECTION 12 : ECOLOGICAL CONSIDERATION

### Ecotoxicity Data :

MgCl<sub>2</sub> is a seawater component.



## SECTION 13 : DISPOSAL CONSIDERATION

### Waste disposal :

Observe all federal, state and local environmental regulations when disposing of this material.

### Disposal of Packaging :

Containers can be recycled after proper cleaning.



## SECTION 14 : TRANSPORT INFORMATION

**IMO** Not regulated

**ICAO/IATA** Not regulated

**DOT** Not regulated



## SECTION 15 :REGULATORY INFORMATION

EU	Anhydrous MgCl <sub>2</sub> is reported EINECS
- Indication of danger	Not subject to labelling in accordance with EEC Directives.
USA	Reported in the EPA TSCA Inventory.
Australia	Listed in AICS
Canada	Listed in DSL
China inventory	Listed in ENCS
Japan	Listed in ENCS
New Zealand Inventory	Listed in NZIoC
Philippines	Listed in PICCS

## SECTION 16 :OTHER INFORMATION

### Disclaimer :

**Water Specialist Supply(WSS THAILAND) CO.,Ltd provide information contained here in good faith but make no representation as to its comprehensiveness or accuracy.This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.**