



## MATERIAL SAFETY DATA SHEET

### MAGNESIUM CHLORIDE

#### 1. Chemical Product & Company Information

**Synonyms:** Magnesium Chloride Hexahydrate; Magnesium Chloride, 6-hydrate

**CAS No.:** 7791-18-6 (Hexahydrate)

**Chemical Formula:**  $MgCl_2 \cdot 6H_2O$

**Product Use:** Dust control; Snow and ice melt; agriculture, aquaculture, feed additive, manufacture of textile, cement, paper, etc.

**Manufacturer:** Weifang Hongyuan Chemical Co., Ltd

**Address:** Xinxing Industrial Park, Dajiawa Sub-District Office, Costal Economic Development Zone, Wenfang City, China

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**Date:** October 22, 2015

#### 2. Composition/Information on Ingredients

Ingredient	CAS No.	Percent
Magnesium Chloride Hexahydrate( $MgCl_2 \cdot 6H_2O$ )	7791-18-6	99%-100%

#### 3. Hazards Identification

##### Emergency Overview

**CAUTION! MAY BE HARMFUL IF SWALLOWED.**

**SAF-T-DATA<sup>(tm)</sup> Ratings (Provided here for your convenience)**

Health Rating: 1 - Slight

Flammability Rating: 0 - None

Reactivity Rating: 1 - Slight

Contact Rating: 1 - Slight

Lab Protective Equip: Goggles; Lab Coat; Proper Gloves, Dust Mast

Storage Color Code: Green (General Storage)

##### Potential Health Effects

**Inhalation:** Inhalation of dust may cause mild irritation to the mucous membranes.

**Ingestion:** Since magnesium salts are slowly absorbed, abdominal pain, vomiting and diarrhea



may be the only symptoms. However, if elimination is blocked by bowel blockage or other reasons, CNS depression, lack of reflexes, hypocalcemia (deficiency of calcium in the blood) may occur.

**Skin Contact:**

No adverse effects expected but may cause minor skin irritation.

**Eye Contact:**

No adverse effects expected but dust may cause mechanical irritation.

**Chronic Exposure:**

No information found.

**Aggravation of Pre-existing Conditions:**

No information found.

## 4. First Aid Measures

**Inhalation:** Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:** Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

**Skin Contact:** Remove any contaminated clothing. Wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.

**Eye Contact:** Wash thoroughly with running water. Get medical advice if irritation develops.

**Note to Physician:**

IV administration of calcium gluconate will partially reverse the effects of acute magnesium toxicity. Ventricular support with calcium chloride infusion and mannitol forced diuresis has also been successful.

## 5. Fire Fighting Measures

**Fire:** Not considered to be a fire hazard.

**Explosion:** Not considered to be an explosion hazard. At room temperature the addition of magnesium chloride to furan-2-peroxy-carboxylic acid, will cause the acid to explode.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

## 7. Handling and Storage



Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:** None established.

**Ventilation System:** A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):** For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear protective gloves and clean body-covering clothing.

**Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

## 9. Physical and Chemical Properties

**Appearance:** white Pellet / Flake / Powder

**Odor:** Odorless.

**Solubility:** soluble in water

**% Volatiles by volume @ 21°C (70F):** 0

**Boiling Point:** Not applicable(loses water of hydration)

**Melting Point:** 116.4°C - 116.8°C

**Vapor Density (Air=1):** No information found.

**Vapor Pressure (mm Hg):** No information found.

**Evaporation Rate (BuAc=1):** No information found.

## 10. Stability and Reactivity

**Stability:** Stable under ordinary conditions of use and storage. By strong ignition is converted into oxychloride.

**Hazardous Decomposition Products:**

When heated to decomposition it emits corrosive hydrochloric acid vapor. When heated to



temperatures above 300°C(572F) it emits toxic fumes of chlorine gas.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities:** Furan-2-peroxycarboxylic acid. Strong oxidizing agents will release chlorine.

**Conditions to Avoid:** Heat, moisture, incompatibles.

## 11. Toxicological information

Oral rat LD<sub>50</sub>:8100mg/kg;Investigated as a mutagen.No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP,OSHA,ACGIH or IARC.

## 12. Ecological Information

**Environmental Fate:** No information found.

**Environmental Toxicity:** No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

Not a hazardous material for transportation.

DOT regulations:

Hazard class: None

Land transport ADR/RID

ADR/RID class: None

Maritime transport IMDG:

IMDG Class: None

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: None

Transport/Additional information:Not dangerous according to the above specifications.

## 15. Regulatory Information

National regulations:All components of this product are not listed in the.Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

U.N.No.: None Allocated

Dg Class: None Allocated

Sub Risk: None Allocated



Hazchem: None Allocated

Poison Schedule: None allocated.

## 16. Other Information

Date: October 22, 2015

Reference: Not available

Other special considerations: Not available

**Other information:**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as guide. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising from using the above information.