



# MATERIAL DATA SAFETY DATA SDS / MSDS

## Section 1 Product Description

**Product Name:** Magnesium Chloride 0.01M(0.02N) Standard Solution  
**Recommended Use:** Science education applications  
**Synonyms:** Magnesium Chloride, Aqueous Solution  
**Distributor:** Bio-Chem Chemicals  
5455 Nicholson Road, Science Market  
Ambala Cantt, 133001-Haryana  
+91 8295241953  
info@biofinechemical.com -www.biofinechemical.com  
**Chemical Information:** +91 9992151495(10.00am-06.30pm)(Office Hours)

## Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

GHS Classification:

**Other Safety Precautions:** Not a dangerous substance according to GHS classification criteria.

## Section 3 Composition / Information on Ingredients

| <u>Chemical Name</u>          | <u>CAS #</u> | <u>%</u> |
|-------------------------------|--------------|----------|
| Water                         | 7732-18-5    | 99.05    |
| Magnesium Chloride, 6-Hydrate | 7791-18-6    | 0.95     |

## Section 4 First Aid Measures

### Emergency and First Aid Procedures

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**Skin Contact:** After contact with skin, wash immediately with plenty of water.  
**Ingestion:** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

## Section 5 Firefighting Procedures

**Extinguishing Media:** Use media suitable to extinguish surrounding fire.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Fire or excessive heat may produce hazardous decomposition products.  
**Hazardous Combustion Products:** Hydrogen chloride, Metal Oxides,

## Section 6 Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** No adverse health effects expected from the clean-up of spilled material. Avoid creating and inhaling spray or mist.  
**Methods for Clean-up:** No special spill clean-up considerations. Collect and discard in regular trash.

## Section 7 Handling and Storage

**Handling:** Do not breathe dust/vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution.  
**Storage:** Keep container tightly closed in a cool, well-ventilated place.  
**Storage Code:** Green - general chemical storage

## Section 8

## Protection Information

| <u>Chemical Name</u>                        | <u>ACGIH</u>                                                                                                                                                                                                                                                                                                                                                       | <u>OSHA PEL</u> |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| No data available                           | (TWA) (STEL)                                                                                                                                                                                                                                                                                                                                                       | (TWA) (STEL)    |
| <b>Control Parameters</b>                   |                                                                                                                                                                                                                                                                                                                                                                    |                 |
| <b>Engineering Measures:</b>                | No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.                                                                                                                                                                                             |                 |
| <b>Personal Protective Equipment (PPE):</b> | Lab coat, apron, eye wash, safety shower.                                                                                                                                                                                                                                                                                                                          |                 |
| <b>Respiratory Protection:</b>              | No respiratory protection required under normal conditions of use.                                                                                                                                                                                                                                                                                                 |                 |
| <b>Eye Protection:</b>                      | Wear chemical splash goggles when handling this product. Have an eye wash station available.                                                                                                                                                                                                                                                                       |                 |
| <b>Skin Protection:</b>                     | Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. |                 |
| <b>Gloves:</b>                              | Nitrile                                                                                                                                                                                                                                                                                                                                                            |                 |

## Section 9

## Physical Data

|                                          |                                                     |
|------------------------------------------|-----------------------------------------------------|
| <b>Formula:</b> Cl2Mg                    | <b>Vapor Pressure:</b> 14 (water)                   |
| <b>Molecular Weight:</b> 95.21 g/mol     | <b>Evaporation Rate (BuAc=1):</b> Slightly < 1      |
| <b>Appearance:</b> Colorless             | <b>Vapor Density (Air=1):</b> 0.7 (water)           |
| <b>Odor:</b> None                        | <b>Specific Gravity:</b> Approx. 1.0                |
| <b>Odor Threshold:</b> No data available | <b>Solubility in Water:</b> Soluble                 |
| <b>pH:</b> No data available             | <b>Log Pow (calculated):</b> No data available      |
| <b>Melting Point:</b> Estimated 0 C      | <b>Autoignition Temperature:</b> No data available  |
| <b>Boiling Point:</b> 100 C              | <b>Decomposition Temperature:</b> No data available |
| <b>Flash Point:</b> No data available    | <b>Viscosity:</b> No data available                 |
| <b>Flammable Limits in Air:</b> N/A N/A  | <b>Percent Volatile by Volume:</b> 99.05%           |

## Section 10

## Reactivity Data

|                                          |                                  |
|------------------------------------------|----------------------------------|
| <b>Reactivity:</b>                       | No data available                |
| <b>Chemical Stability:</b>               | Stable under normal conditions.  |
| <b>Conditions to Avoid:</b>              | None known.                      |
| <b>Incompatible Materials:</b>           | Strong oxidizing agents          |
| <b>Hazardous Decomposition Products:</b> | Metal Oxides,, Hydrogen chloride |
| <b>Hazardous Polymerization:</b>         | Will not occur                   |

## Section 11

## Toxicity Data

**Routes of Entry:** Inhalation, ingestion, eye or skin contact.  
**Symptoms (Acute):** N/A  
**Delayed Effects:** No data available

### Acute Toxicity:

| Chemical Name                 | CAS Number | Oral LD50                    | Dermal LD50 | Inhalation LC50 |
|-------------------------------|------------|------------------------------|-------------|-----------------|
| Water                         | 7732-18-5  | Oral LD50 Rat<br>90000 mg/kg |             |                 |
| Magnesium Chloride, 6-Hydrate | 7791-18-6  | Oral LD50 Rat<br>8100 mg/kg  |             |                 |

### Carcinogenicity:

| Chemical Name     | CAS Number | IARC | NTP | OSHA |
|-------------------|------------|------|-----|------|
| No data available |            |      |     |      |

### Chronic Effects:

**Mutagenicity:** No evidence of a mutagenic effect.  
**Teratogenicity:** No evidence of a teratogenic effect (birth defect).  
**Sensitization:** No evidence of a sensitization effect.  
**Reproductive:** No evidence of negative reproductive effects.  
**Target Organ Effects:**  
**Acute:** See Section 2  
**Chronic:** Not listed as a carcinogen by IARC, NTP or OSHA.

## Section 12

## Ecological Data

**Overview:** This material is not expected to be harmful to the ecology.  
**Mobility:** No data  
**Persistence:** No data  
**Bioaccumulation:** No data  
**Degradability:** No data  
**Other Adverse Effects:** No data

| Chemical Name | CAS Number | Eco Toxicity      |
|---------------|------------|-------------------|
| Water         | 7732-18-5  | No data available |

## Section 13

## Disposal Information

**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.  
**Waste Disposal Code(s):** Not Determined

## Section 14

## Transport Information

|                                                  |                                                                                     |
|--------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Ground - DOT Proper Shipping Name:</b><br>N/A | <b>Air - IATA Proper Shipping Name:</b><br>Not regulated for air transport by IATA. |
|--------------------------------------------------|-------------------------------------------------------------------------------------|

## Section 15

## Regulatory Information

**TSCA Status:**

All components in this product are on the TSCA Inventory.

**Chemical Name****CAS  
Number****§ 313 Name****§ 304 RQ****CERCLA RQ****§ 302 TPQ****CAA 112(2)  
TQ**

No data available