



## MATERIAL SAFETY DATA SHEET

### Magnesium Acetate, Tetrahydrate

#### 1. Product Identification

**Synonyms:** Magnesium Acetate, magnesium diacetate; Magnesium acetate, 4-hydrate, powder; acetic acid, magnesium salt; Cromosan

**CAS No.:** 16674-78-5

**Molecular Weight:** 214.46

**Chemical Formula:**  $Mg(CH_3COO)_2 \cdot 4H_2O$

**Product Codes:** M102

#### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Magnesium Acetate, Tetrahydrate	16674-78-5	98 - 100%	Yes

#### 3. Hazards Identification

##### EMERGENCY OVERVIEW

**CAUTION!!** MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.

Health Rating: 1 - Slight

Flammability Rating: 0 - None

Reactivity Rating: 0 - None

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER

Storage Color Code: Orange (General Storage)

##### Potential Acute Health Effects:

Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

##### **Inhalation:**

May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

##### **Ingestion:**

Large oral doses may cause irritation to the gastrointestinal tract.

##### **Skin Contact:**

No adverse effects expected but may cause minor skin irritation.

##### **Eye Contact:**

May cause irritation, redness and pain.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.

**4. First Aid Measures**

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention for any breathing difficulty.

**Serious Inhalation:**

Not available.

**Ingestion:**

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately Loosen tight clothing such as a collar, tie, belt or waistband. If large amounts were swallowed, give water to drink and get medical advice.

**Skin Contact:**

Wash exposed area with soap and water. Get medical advice if irritation develops.

**Serious Skin Contact:**

Not available.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

**5. Fire Fighting Measures**

**Fire:**

Not considered to be a fire hazard.

**Explosion:**

Not considered to be an explosion hazard.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available

**Special Remarks on Explosion Hazards:**

Not available.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Products of Combustion:**

These products are carbon oxides (CO, CO<sub>2</sub>). Some metallic oxides.

**Fire Hazards in Presence of Various Substances:**

Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

**Special Information on Fire Hazards:**

Not available.

**Fire Fighting Media and Instructions:**

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Special Information:**

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

**6. Accidental Release Measures****Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:**

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

**7. Handling and Storage****Precautions:**

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust.

**Storage:**

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

**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.

**Engineering Controls:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:**

Safety glasses. Synthetic apron. Gloves (impervious).

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Personal Respirators:**

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 hygroscopic crystals.

**Odor:**

Light smell of acetic acid.

**Solubility:**

Soluble in water

**Density:**

1.45.

**pH:**

Aqueous solution is neutral or slightly acid.

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

0.

**Boiling Point:**

No information found.

**Melting Point:**

80C (176F).

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

No information found.

**Molecular Weight:**

214.46

**Evaporation Rate (BuAc=1):**

No information found.

## 10. **Stability and Reactivity**

**Stability:**

Stable under ordinary conditions of use and storage. Very hygroscopic.

**Conditions to Avoid:**

Moisture and incompatibles.

**Conditions of Instability:**

Excess heat, moisture, dust generation, incompatible materials.

**Incompatibilities:**

Strong oxidizers.

**Hazardous Decomposition**

May produce oxides of carbon and the contained metal.

**Special Remarks on Reactivity:**

Not available.

**Corrosivity:**

Non-corrosive in presence of glass.

**Hazardous Polymerization:**

Will not occur.

**11. Toxicological Information****Routes of Entry:**

Inhalation. Ingestion.

**Toxicity to Animals:**

LD50: Not available. LC50: Not available.

**Chronic Effects on Humans:**

Causes damage to the following organs: mucous membranes.

**Other Toxic Effects on Humans:**

Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Chronic Effects on Humans:**

Not available.

**Special Remarks on other Toxic Effects on Humans:****Acute Potential Health Effects:*****Skin:***

May cause skin irritation.

***Eyes:***

May cause eye irritation. Contact may cause transient irritation

***Inhalation:***

May cause respiratory tract irritation.

***Ingestion:***

May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

**12. Ecological Information****Ecotoxicity:**

Not available

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:**

The product itself and its products of degradation are not toxic.

**13. Disposal Considerations**

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste 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.

**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**14. Transport Information****DOT Classification:**

Not a DOT controlled material

**Identification:**

Not applicable

**Special Provisions for Transport:**

Not available.

**Protective Equipment:**

Gloves (impervious). Synthetic apron. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

**15. Other Information**

**NFPA Ratings:** Health: **1** Flammability: **0** Reactivity: **0**

**Label Hazard Warning:**

CAUTION! MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.

**Label Precautions:**

Avoid breathing dust.

Avoid contact with eyes, skin and clothing.

Keep container closed.

Wash thoroughly after handling.

**Label First Aid:**

If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

*The information above is believed to be accurate and represents the best information currently available to us. However, 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 investigations to determine the suitability of the information for their particular purposes. In no event shall the company 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, even if the company has been advised of the possibility of such damages.*



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