**SECTION 1: Identification**

1.1. Identification

- **Product form**: Substance
- **Substance name**: Magnesium Citrate Tribasic Hydrate
- **CAS-No.**: 3344-18-1
- **Formula**: $\text{Mg}_3(\text{C}_6\text{H}_5\text{O}_7)\text{H}_2\text{O}$

1.2. Recommended use and restrictions on use

- **Use of the substance/mixture**: Nutrient; Dietary Supplement; Pharmaceuticals

1.3. Supplier

**Manufacturer**
Jost Chemical Co.
8150 Lackland Rd.
Saint Louis, Missouri 63114
T 314-428-4300 - F 314-428-4366
sds@jostchemical.com - www.jostchemical.com

1.4. Emergency telephone number

- **Emergency number**: For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident
  - Call CHEMTREC Day or Night
  - United States and Canada: 1-800-424-9300 / +1 703-527-3887
  - Global: +1 703-741-5970

**SECTION 2: Hazard(s) identification**

2.1. Classification of the substance or mixture

**GHS-US classification**
Not classified

2.2. GHS Label elements, including precautionary statements

**GHS-US labeling**
No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

**SECTION 3: Composition/Information on ingredients**

3.1. Substances

- **Substance type**: Mono-constituent

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium Citrate Tribasic Hydrate (Main constituent)</td>
<td>(CAS-No.) 3344-18-1</td>
<td>100</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

3.2. Mixtures

Not applicable

**SECTION 4: First-aid measures**

4.1. Description of first aid measures

- **First-aid measures after inhalation**: Remove person to fresh air and keep comfortable for breathing.
- **First-aid measures after skin contact**: Wash skin with plenty of water.
- **First-aid measures after eye contact**: Rinse eyes with water as a precaution.
- **First-aid measures after ingestion**: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

- **Symptoms/effects after inhalation**: May cause respiratory irritation.
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Symptoms/effects after skin contact: Slight irritation.
Symptoms/effects after eye contact: Slight irritation.

4.3. Immediate medical attention and special treatment, if necessary
Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

5.2. Specific hazards arising from the chemical
Fire hazard: Not flammable.
Reactivity: The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters
Firefighting instructions: Do not dispose of fire-fighting water in the environment. Cool down the containers exposed to heat with a water spray.
Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Protective equipment: Protective clothing. See "Material-Handling" to select protective clothing.
Emergency procedures: Ventilate spillage area.

6.1.2. For emergency responders
Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
For containment: Collect all waste in suitable and labeled containers and dispose according to local legislation.
Methods for cleaning up: Mechanically recover the product.
Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures: Does not require any specific or particular technical measures.
Storage conditions: Store in a clean, dry warehouse in the original unopened containers. Store in a well-ventilated place. Keep cool.
Incompatible materials: Strong oxidizers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No additional information available

8.2. Appropriate engineering controls
Appropriate engineering controls: Ensure good ventilation of the work station.
Environmental exposure controls: Avoid release to the environment.
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8.3. Individual protection measures / Personal protective equipment

Personal protective equipment:

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
Dust production: dust mask with filter type P1

Personal protective equipment symbol(s):

---

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>White/Off White Fine Granular. White powder.</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>3.5 - 4.5</td>
</tr>
<tr>
<td>pH solution</td>
<td>50 g/l (20 °C; aqueous solution)</td>
</tr>
<tr>
<td>Melting point</td>
<td>184 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>451.13 g/mol (anhydrous)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Poorly soluble in water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available
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SECTION 10: Stability and reactivity
10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials
Strong oxidizers.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Lack of data)
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified
Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
                        pH: 3.5 - 4.5
Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
                            pH: 3.5 - 4.5
Respiratory or skin sensitization : Not classified (Lack of data)
Germ cell mutagenicity : Not classified (Lack of data)
Carcinogenicity : Not classified (Lack of data)
Reproductive toxicity : Not classified (Lack of data)
Specific target organ toxicity – single exposure : Not classified (Lack of data)
Specific target organ toxicity – repeated exposure : Not classified (Lack of data)
Aspiration hazard : Not classified
                            (Not applicable)
Viscosity, kinematic : No data available
Symptoms/effects after inhalation : May cause respiratory irritation.
Symptoms/effects after skin contact : Slight irritation.
Symptoms/effects after eye contact : Slight irritation.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
No additional information available
SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Proper Shipping Name (Transportation of Dangerous Goods): Not regulated for transport

Transport by sea

Proper Shipping Name (IMDG): Not regulated for transport

Air transport

Proper Shipping Name (IATA): Not regulated for transport

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

| Magnesium Citrate Tribasic Hydrate | CAS-No. 3344-18-1 | 100% |

15.2. International regulations

CANADA

Magnesium Citrate Tribasic Hydrate (3344-18-1)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Magnesium Citrate Tribasic Hydrate (3344-18-1)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Magnesium Citrate Tribasic Hydrate (3344-18-1)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECS (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on NZIoC (New Zealand Inventory of Chemicals)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm
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NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.

Hazard Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

SDS US (HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.