

MATERIAL SAFETY DATA SHEET

SDS No. : 2024020102

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Prepared in Accordance with : ST/SG/AC.10/30/Rev10 (GHS)

CAS Number : 1309-48-4

EC Number : 215-171-9

Molecular Mass : 40.30 g/mol

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Magnesium Oxide

Synonyms/Trade Names: Magnesium Oxide

1.2 Other Means of Identification

Company Product Code: No information available

1.3 Recommended Use and Restrictions on Use

- **Relevant Identified Uses** : Pharma, Food, Feed, Technical, Industrial, Cosmetic, Agriculture Use
- **Uses Advised Against** : No information available

1.4 Details of the Supplier/Manufacturer

Name: Tianjin Hugeroc Enterprises CO., LTD

Address: Unit 1806 Huijin Centre, 65 Dagu Beilu, Heping District, Tianjin

Postal Code: 300010

Telephone: +86-15522959629

E-mail: sale6@hugeroc.com

1.5 Emergency Contact Telephone

+86-15522959629

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Not classified as hazardous according to GHS criteria.

2.2 Label Elements

- **Pictograms** : None
- **Signal Word** : None
- **Hazard Statements** : No information available
- **Precautionary Statements**
 - Prevention: No information available
 - Response: No information available
 - Storage: No information available
 - Disposal: No information available

2.3 Other Hazards

No additional hazards identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Chemical Name	CAS No.	EC No.	Content (wt%)	GHS Classification
Magnesium Oxide	1309-48-4	215-171-9	≤100	Not classified

3.2 Mixture

Not applicable (pure substance).

4. FIRST-AID MEASURES

4.1 Description of First-Aid Measures

- **General Advice** : No specific advice available.
- **Eye Contact** : Rinse thoroughly with flowing water or physiological saline, keeping eyelids open. Consult an ophthalmologist if persistent discomfort occurs.

- **Skin Contact** : Remove contaminated clothing and rinse skin with running water. Consult an ophthalmologist if persistent discomfort occurs.
- **Ingestion** : Drink plenty of warm water and induce vomiting. Seek medical attention if discomfort develops.
- **Inhalation** : Evacuate immediately to an area with fresh air. Administer oxygen and consult an ophthalmologist if breathing is difficult.

4.2 Most Important Symptoms and Effects, Acute and Delayed

No information available.

4.3 Indication of Immediate Medical Attention and Special Treatment Needed

No specific medical treatment required; seek general medical advice if symptoms persist.

5. FIRE-FIGHTING MEASURES

5.1 Suitable Extinguishing Media

Water mist, alcohol-resistant foam, dry chemical powder, carbon dioxide (CO₂).

5.2 Unsuitable Extinguishing Media

No information available.

5.3 Special Hazards Arising from the Substance or Mixture

No special fire or explosion hazards associated with magnesium oxide.

5.4 Special Protective Actions for Firefighters

Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing if necessary for firefighting operations.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

- **Non-Emergency Personnel** : Avoid dust generation; do not inhale dust, vapors, aerosols or gases.
- **Emergency Responders** : Wear a dust mask and general work protective clothing.

6.2 Environmental Precautions

No special environmental protection measures required; avoid unnecessary environmental

contamination.

6.3 Methods and Materials for Containment and Cleaning Up

- Cover spilled material with plastic sheeting to minimize scattering; do not allow water to enter the original packaging.
- Collect spilled material with a clean, dry shovel and place into a clean, dry container with a loose-fitting lid.
- Move the contaminated container away from the spill area for proper handling.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Provide adequate local exhaust ventilation in areas where dust generation is likely to occur to prevent inhalation of dust. Observe good personal hygiene practices.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

- **Storage Conditions** : Keep containers tightly sealed; store in a cool, dry, well-ventilated area.
- **Sensitivity** : Sensitive to water, moisture and air.
- **Incompatible Materials** : Strong oxidizing agents, strong acids, phosphorus pentachloride and other halides. Do not store with incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Occupational Exposure Limits (OEL)

Country	8-Hour Time-Weighted Average (TWA) (mg/m ³)	Short-Term Exposure Limit (STEL) (mg/m ³)	Notes
Australia	10	6	Inhalable aerosol
Denmark	10	12	Inhalable aerosol
Ireland	4	10	-
Poland	10	/	-
Singapore	10	/	-

USA (OSHA)	10	/	-
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8.2 Appropriate Engineering Controls

Under normal use conditions, general mechanical ventilation is sufficient. Local exhaust ventilation is recommended for operations generating dust.

8.3 Personal Protective Equipment (PPE)

- **Hand Protection** : Wear chemical-resistant gloves complying with EU 2016/425 and EN 374. Check gloves for damage before use; remove gloves correctly to avoid skin contact with contaminated surfaces. Dispose of contaminated gloves properly.
- **Eye Protection** : Wear impact- and dust-resistant eye protection approved to NIOSH (US) or EN 166 (EU) standards.
- **Skin Protection** : Wear appropriate work clothing to prevent skin contact. Clean and launder protective clothing regularly; discard clothing that cannot be decontaminated.
- **Respiratory Protection** : No respiratory protection required under normal use. For dust exposure, wear an N95 (US) or P1 (EN 143) disposable dust mask approved by NIOSH or CEN.
- **Hygiene Measures** : Wash hands and exposed skin thoroughly after handling, before eating, drinking or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	White powder
Color	White
Odor	No information available
Odor Threshold	No information available
pH Value	10.5
Melting Point/Freezing Point	2852 °C
Boiling Point	3600 °C
Flash Point	No information available

Flammability	Non-flammable (no information available)
Explosion Limits (Lower/Upper)	No information available
Vapour Pressure	No information available
Vapour Density (air=1)	No information available
Relative Density (water=1)	3.58 (20 °C)
Bulk Density	No information available
Solubility in Water	Soluble
Partition Coefficient (n-octanol/water)	No information available
Auto-Ignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Oxidising Properties	No information available
Explosive Properties	No information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reactions are known to occur under normal conditions of use and storage.

10.2 Chemical Stability

Stable under normal storage and handling conditions.

10.3 Possibility of Hazardous Reactions

No hazardous reactions identified under normal use.

10.4 Conditions to Avoid

Exposure to excessive moisture, water and air.

10.5 Incompatible Materials

Strong oxidants, strong acids, phosphorus pentachloride and other halides.

10.6 Hazardous Decomposition Products

No hazardous decomposition products identified under normal use conditions.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

- **Acute Toxicity (Oral/Dermal/Inhalation)** : No information available.
- **Skin Corrosion/Irritation** : No information available.
- **Serious Eye Damage/Irritation** : No information available.
- **Skin Sensitisation** : No information available.
- **Respiratory Sensitisation** : No information available.
- **Germ Cell Mutagenicity** : No information available.
- **Carcinogenicity** : Not listed by IARC or NTP.
- **Reproductive Toxicity** : No information available.
- **Specific Target Organ Toxicity (Single Exposure)** : No information available.
- **Specific Target Organ Toxicity (Repeated Exposure)** : No information available.
- **Aspiration Hazard** : No information available.

11.2 Other Toxicological Information

No additional toxicological information available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No information available for fish, aquatic invertebrates, or aquatic algae/cyanobacteria.

12.2 Persistence and Degradability

Biodegradation test methods are not applicable to inorganic substances such as magnesium oxide.

12.3 Bioaccumulative Potential

No information available; bioaccumulation is not expected for inorganic magnesium

compounds.

12.4 Mobility in Soil

No information available.

12.5 Results of PBT and vPvB Assessment

PBT/vPvB assessment is not applicable to this inorganic substance.

12.6 Other Adverse Effects

No additional adverse environmental effects identified.

13. DISPOSAL CONSIDERATIONS

13.1 Disposal of Substance

Classified as hazardous waste. Do not discharge to sewers, ponds, waterways or ditches. Dispose of in accordance with local, regional and national environmental regulations.

13.2 Disposal of Contaminated Packaging

Empty remaining contents of packaging and dispose of the product residue as unused material. Do not reuse empty containers; dispose of contaminated packaging in accordance with local regulations.

14. TRANSPORT INFORMATION

Magnesium Oxide is **not classified as dangerous goods** for transport by road (ADR), rail (RID), sea (IMDG) or air (IATA/ICAO).

- UN Number: Not applicable
- UN Proper Shipping Name: Not applicable
- Transport Hazard Class: Not applicable
- Packing Group: Not applicable
- Environmental Hazards: No
- Transport Pictograms: None
- Special Precautions for User: No information available

15. REGULATORY INFORMATION

15.1 Chemical Inventory Listings

Magnesium Oxide is listed in the following international chemical inventories:

- EINECS (European Inventory of Existing Commercial Chemical Substances)

- TSCA (US Toxic Substances Control Act)
- DSL/NDSL (Canadian Domestic/Non-Domestic Substances List)
- IECSC (Inventory of Existing Chemical Substances in China)
- NZIoC (New Zealand Inventory of Chemicals)
- PICCS (Philippines Inventory of Chemicals and Chemical Substances)
- KECL (Korean Existing Chemicals List)
- AIIC (Australian Inventory of Industrial Chemicals)

15.2 Chemical Safety Assessment

No chemical safety assessment has been conducted by the supplier for this substance.

16. OTHER INFORMATION

16.1 Issuing Details

- Issued By: Hebei MESSI Biology Co.,Ltd.
- Revision Date: 2024/04/15
- Reason for Modification: No information available

16.2 References

1. IPCS - International Chemical Safety Cards (ICSC)
2. HSDB - Hazardous Substances Data Bank
3. IARC - International Agency for Research on Cancer
4. eChemPortal - OECD Global Portal to Chemical Substance Information
5. CAMEO Chemicals
6. US National Institutes of Health (NIH): Pubchem
7. ChemIDplus
8. ERG - US DOT Emergency Response Guidebook
9. Germany GESTIS-database on hazardous substances
10. ECHA - European Chemicals Agency

16.3 Abbreviations and Acronyms

- CAS: Chemical Abstracts Service
- ADR: Agreement Concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation Concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods Code

- IATA: International Air Transport Association
- TWA: Time-Weighted Average
- STEL: Short-Term Exposure Limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%
- PPE: Personal Protective Equipment
- SCBA: Self-Contained Breathing Apparatus

16.4 Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability of such information for their own particular use.

16.5 Statement

This MSDS is prepared in accordance with the GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS) ST/SG/AC.10/30/Rev10. Data is compiled from authoritative international databases and manufacturer-provided information. This document is for reference only; the user is solely responsible for determining the suitability of the product for their intended use. The supplier shall not be liable for any loss, damage or expense arising from the handling, storage, use or disposal of this product.

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