

SAFETY DATA SHEET

Revision Date 24-Dec-2021

Revision Number 6

1. Identification

Product Name Magnesium Powder

Cat No. : M7-100

Synonyms Magnesium Metal

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|--|------------|
| Substances/mixtures which, in contact with water, emit flammable gases | Category 1 |
| Pyrophoric solids | Category 1 |

Label Elements

Signal Word

Danger

Hazard Statements

In contact with water releases flammable gases which may ignite spontaneously
Catches fire spontaneously if exposed to air

**Precautionary Statements****Prevention**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Do not allow contact with air

Wear protective gloves/protective clothing/eye protection/face protection

Keep away from any possible contact with water, because of violent reaction and possible flash fire

Handle under inert gas. Protect from moisture

Skin

Brush off loose particles from skin. Immerse in cool water/wrap with wet bandages

Fire

In case of fire: Use fire-fighting equipment on basis class D for extinction

Storage

Store under an inert atmosphere

Store in a dry place. Store in a closed container

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

| Component | CAS No | Weight % |
|-------------------|-----------|----------|
| Magnesium, powder | 7439-95-4 | >99 |

4. First-aid measures

| | |
|--|---|
| General Advice | If symptoms persist, call a physician. |
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. |
| Inhalation | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur. |
| Most important symptoms and effects | None reasonably foreseeable. |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

| | |
|---------------------------------------|--------------------------|
| Unsuitable Extinguishing Media | No information available |
|---------------------------------------|--------------------------|

| | |
|--------------------|--------------------------|
| Flash Point | No information available |
| Method - | No information available |

| | |
|---------------------------------|-------------------|
| Autoignition Temperature | 472.8 °C / 883 °F |
|---------------------------------|-------------------|

Explosion Limits

| | |
|---|--------------------------|
| Upper | No data available |
| Lower | No data available |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge | No information available |

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Hydrogen.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
0

Flammability
4

Instability
2

Physical hazards
W

6. Accidental release measures

| | |
|-----------------------------|---|
| Personal Precautions | Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. |
|-----------------------------|---|

| | |
|----------------------------------|--|
| Environmental Precautions | See Section 12 for additional Ecological Information. Should not be released into the environment. |
|----------------------------------|--|

| | |
|---|--|
| Methods for Containment and Clean Up | Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal. |
|---|--|

7. Handling and storage

| | |
|-----------------|---|
| Handling | Wear personal protective equipment/face protection. Avoid dust formation. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. |
|-----------------|---|

| | |
|-----------------|--|
| Storage. | Keep container tightly closed in a dry and well-ventilated place. Store under an inert atmosphere. |
|-----------------|--|

8. Exposure controls / personal protection

| | |
|----------------------------|---|
| Exposure Guidelines | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
|----------------------------|---|

| | |
|-----------------------------|--|
| Engineering Measures | Use explosion-proof electrical/ventilating/lighting equipment. Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. |
|-----------------------------|--|

Personal Protective Equipment

| | |
|----------------------------|---|
| Eye/face Protection | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. |
|----------------------------|---|

| | |
|---------------------------------|---|
| Skin and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure. |
|---------------------------------|---|

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

| | |
|---|---------------------------|
| Physical State | Solid |
| Appearance | Silver |
| Odor | Odorless |
| Odor Threshold | No information available |
| pH | 7 |
| Melting Point/Range | 651.1 °C / 1204 °F |
| Boiling Point/Range | 1107.2 °C / 2025 °F |
| Flash Point | No information available |
| Evaporation Rate | Not applicable |
| Flammability (solid,gas) | No information available |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | No information available |
| Vapor Density | Not applicable |
| Specific Gravity | 1.74 (H ₂ O=1) |
| Solubility | Insoluble in water |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | 472.8 °C / 883 °F |
| Decomposition Temperature | No information available |
| Viscosity | Not applicable |
| Molecular Formula | Mg |
| Molecular Weight | 24.305 |

10. Stability and reactivity

| | |
|---|--|
| Reactive Hazard | Yes |
| Stability | Pyrophoric: Spontaneously flammable in air. Reacts violently with water, liberating extremely flammable gases. |
| Conditions to Avoid | Exposure to air. Ignites on contact with oxygen or air. |
| Incompatible Materials | Strong oxidizing agents |
| Hazardous Decomposition Products | Hydrogen |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------|---------------------|-------------|-----------------|
| Magnesium, powder | >2000 mg/kg (Rat) | Not listed | Not listed |

Toxicologically Synergistic No information available

Products

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS No | IARC | NTP | ACGIH | OSHA | Mexico |
|-------------------|-----------|------------|------------|------------|------------|------------|
| Magnesium, powder | 7439-95-4 | Not listed | Not listed | Not listed | Not listed | Not listed |

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Persistence and Degradability Insoluble in water

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN1418
 Proper Shipping Name MAGNESIUM, POWDER
 Hazard Class 4.3
 Subsidiary Hazard Class 4.2
 Packing Group II

TDG

UN-No UN1418
 Proper Shipping Name MAGNESIUM ALLOYS, POWDER
 Hazard Class 4.3
 Subsidiary Hazard Class 4.2
 Packing Group II

IATA

UN-No UN1418

Proper Shipping Name MAGNESIUM ALLOYS POWDER
Hazard Class 4.3
Subsidiary Hazard Class 4.2
Packing Group II

IMDG/IMO

UN-No UN1418
Proper Shipping Name MAGNESIUM POWDER
Hazard Class 4.3
Subsidiary Hazard Class 4.2
Packing Group II

15. Regulatory information

United States of America Inventory

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|-------------------|-----------|------|---|-----------------------------|
| Magnesium, powder | 7439-95-4 | X | ACTIVE | - |

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component | CAS No | DSL | NDL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|-------------------|-----------|-----|-----|-----------|-------|------|------|------|-------|----------|
| Magnesium, powder | 7439-95-4 | X | - | 231-104-6 | X | X | | X | X | KE-22673 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------|---------------|------------|--------------|----------|--------------|
| Magnesium, powder | X | X | X | - | X |

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product contains the following DHS chemicals:

Legend - STQs = Screening Threshold Quantities, APA = A placarded amount

| Component | DHS Chemical Facility Anti-Terrorism Standard |
|-------------------|---|
| Magnesium, powder | Theft STQs - 100lb (powder) |

Other International Regulations**Mexico - Grade** No information available**Authorisation/Restrictions according to EU REACH****Safety, health and environmental regulations/legislation specific for the substance or mixture**

| Component | CAS No | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|-------------------|-----------|----------|------------------------------|---------------------------|--|
| Magnesium, powder | 7439-95-4 | Listed | Not applicable | Not applicable | Not applicable |

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|-------------------|-----------|---|--|----------------------------|------------------------------------|
| Magnesium, powder | 7439-95-4 | Not applicable | Not applicable | Not applicable | Not applicable |

16. Other information**Prepared By**

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Revision Summary

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text

End of SDS