

SAFETY DATA SHEET

Creation Date 17-January-2011

Revision Date 28-December-2025

Revision Number 7

This safety data sheet was created pursuant to the requirements of: Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) - SOR 2022-272

1. Identification

Product Name Magnesium turnings

Cat No. : L08120

CAS-No 7439-95-4
Synonyms Magnesium metal (ribbons/turnings)

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Importer/Distributor

Fisher Scientific
112 Colonnade Road,
Ottawa, ON K2E 7L6,
Canada
Tel: 1-800-234-7437

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

WHMIS 2015 Classification

This product is hazardous in accordance with the Canada Hazardous Products Act (HPA) and Hazardous Products Regulation (HPR), as amended (SOR/2022-272)

| | | |
|---|------------|--------------------|
| Flammable solids | Category 1 | |
| Self-heating substances and mixtures | Category 2 | Gas(es) = Hydrogen |
| Substances/mixtures which, in contact with water, emit flammable gases | Category 2 | |

Label Elements

Signal Word

Danger

Hazard Statements

Flammable solid

Self-heating in large quantities; may catch fire
In contact with water releases flammable gas



Precautionary Statements

Prevention

Keep container tightly closed
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Do not allow contact with water
Keep cool. Protect from sunlight
Ground and bond container and receiving equipment
Wear protective gloves/protective clothing/eye protection/face protection
Handle and store contents under inert gas. Protect from moisture

Response

IF ON SKIN: Brush off loose particles from skin. Immerse in cool water or wrap in wet bandages
In case of fire: Use fire-fighting equipment on basis class D to extinguish
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion

Storage

Maintain air gap between stacks or pallets
Store in a dry place. Store in a closed container
Store bulk masses at temperatures not exceeding manufacturer recommendations
Store in a well-ventilated place. Keep container tightly closed
Store separately

Disposal

Dispose of contents/container to an approved waste disposal plant

3. Composition/Information on Ingredients

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

4. First-aid measures

| | |
|--|---|
| 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. Get medical attention. |
| Inhalation | Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. |
| Ingestion | Do NOT induce vomiting. Get medical attention. |
| Most important symptoms/effects | No information available. |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

| | |
|---|---|
| Suitable Extinguishing Media | Dry chemical. approved class D extinguishers. clay. sodium carbonate. |
| Unsuitable Extinguishing Media | No information available |
| Flash Point | 500 °C / 932 °F |
| 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

Water reactive. Produce flammable gases on contact with water. Flammable.

Hazardous Combustion Products

Magnesium oxides. 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. Remove all sources of ignition. |
| Environmental Precautions | See Section 12 for additional Ecological Information. |

Methods for Containment and Clean Up Pick up and transfer to properly labelled containers. Remove all sources of ignition. Do not expose spill to water.

7. Handling and storage

| | |
|-----------------|--|
| Handling | Protect from moisture. Avoid contact with skin and eyes. Wash hands before breaks and immediately after handling the product. Ensure adequate ventilation. Wear personal protective equipment/face protection. |
| Storage. | Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks and flame. Keep from any possible contact with water. Store under an inert atmosphere. Incompatible Materials. Acids. Strong oxidizing agents. Halogens. Acid chlorides. |

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 Ensure adequate ventilation, especially in confined areas. Use explosion-proof

electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection
Hand Protection

Goggles
Protective gloves

| Glove material | Breakthrough time | Glove thickness | Glove comments |
|----------------|-------------------|-----------------|------------------------|
| Natural rubber | See manufacturers | - | Splash protection only |
| Nitrile rubber | recommendations | | |
| Neoprene | | | |
| PVC | | | |

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection

No special protective equipment required.

Environmental exposure controls

No information available.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

9. Physical and chemical properties

Appearance

Physical State

Solid

Color

Silver

Odor

Odorless

Odor Threshold

No information available

Property

Values

Remarks

Method

Melting Point/Range

651 °C / 1203.8 °F

Softening Point

No data available

Boiling Point/Range

1107 °C / 2024.6 °F

Flash Point

500 °C / 932 °F

Method - No information available

Flammability (liquid)

Not applicable

Solid

Flammability (solid,gas)

No information available

Explosion Limits

No data available

Autoignition Temperature

472.8 °C / 883 °F

Decomposition Temperature

No data available

pH

7

Viscosity

Not applicable

Solid

Water Solubility

Insoluble

Solubility in other solvents

No information available

Partition Coefficient (n-octanol/water)

| | | |
|----------------------------|-------------------|-------|
| Vapor Pressure | negligible | |
| Density / Specific Gravity | No data available | |
| Bulk Density | No data available | |
| Vapor Density | Not applicable | Solid |
| Particle characteristics | No data available | |

Other Information

| | |
|--|--|
| Molecular Formula | Mg |
| Molecular Weight | 24.3 |
| Flammable solids | Burning rate or burning time = ≤5 minutes |
| Substances/mixtures which, in contact with water, emit flammable gases | Emitted gas ignites spontaneously Gas(es) = Hydrogen |
| Evaporation Rate | Not applicable - Solid |

10. Stability and reactivity

| | |
|----------------------------------|---|
| Reactive Hazard | Yes |
| Stability | Stable under normal conditions. Air sensitive. Water reactive. |
| Conditions to Avoid | Protect from water. Exposure to air. Incompatible products. Exposure to moist air or water. |
| Incompatible Materials | Acids, Strong oxidizing agents, Halogens, Acid chlorides |
| Hazardous Decomposition Products | Magnesium oxides, Hydrogen |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

Information on expected route of exposure

| | |
|------------|------------------------------------|
| Inhalation | Not an expected route of exposure. |
| Ingestion | May be harmful if swallowed. |
| Eyes | Avoid contact with eyes. |
| Skin | Avoid contact with skin. |

Toxicology data for the components

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-----------|--------------------------|-------------|-----------------|
| Magnesium | LD50 = 230 mg/kg (Rat) | - | - |

| | |
|--|--|
| Toxicologically Synergistic Products | No information available |
| (b) skin corrosion/irritation; | Based on available data, the classification criteria are not met |
| (c) serious eye damage/irritation; | Based on available data, the classification criteria are not met |
| (d) respiratory or skin sensitization; | |
| Respiratory | Based on available data, the classification criteria are not met |
| Skin | Based on available data, the classification criteria are not met |

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

(f) carcinogenicity; Based on available data, the classification criteria are not met
The table below indicates whether each agency has listed any ingredient as a carcinogen

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

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Based on available data, the classification criteria are not met

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met

Target Organs None known.

(j) aspiration hazard; Not applicable
Solid

Symptoms / effects, both acute and delayed No information available.

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

Endocrine Disrupting Properties This product does not contain any known or suspected endocrine disruptors.

12. Ecological information

Ecotoxicity

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

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 UN1869
Proper Shipping Name consumer commodity MAGNESIUM
Hazard Class 4.1
Packing Group III

TDG

UN-No UN1869
Proper Shipping Name MAGNESIUM
Hazard Class 4.1

| | |
|-----------------------------|-----------|
| Packing Group | III |
| IATA | |
| UN-No | UN1869 |
| Proper Shipping Name | MAGNESIUM |
| Hazard Class | 4.1 |
| Packing Group | III |
| IMDG/IMO | |
| UN-No | UN1869 |
| Proper Shipping Name | MAGNESIUM |
| Hazard Class | 4.1 |
| Packing Group | III |

15. Regulatory information

International Inventories

| Component | CAS-No | DSL | NDSL | TSCA | TSCA Inventory notification - Active-Inactive | EINECS | ELINCS | NLP |
|-----------|-----------|-----|------|------|---|-----------|--------|-----|
| Magnesium | 7439-95-4 | X | - | X | ACTIVE | 231-104-6 | - | - |

| Component | CAS-No | IECSC | KECL | ENCS | ISHL | TCSI | AICS | NZIoC | PICCS |
|-----------|-----------|-------|----------|------|------|------|------|-------|-------|
| Magnesium | 7439-95-4 | X | KE-22673 | X | - | X | X | X | X |

Legend:

X - Listed '-' - Not listed

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

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and its amendments and meets the requirements of the HPR (Paragraph 13(1)(a) of the revised Hazardous Products Act (HPA)).

Other International Regulations

Authorisation/Restrictions according to EU REACH Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

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 | 7439-95-4 | Listed | Not applicable | Not applicable | Not applicable |

| Component | CAS-No | Seveso III Directive (2012/18/EC) - | Seveso III Directive (2012/18/EC) - | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|-----------|--------|-------------------------------------|-------------------------------------|----------------------------|------------------------------------|
| | | | | | |

| | | Qualifying Quantities for Major Accident Notification | Qualifying Quantities for Safety Report Requirements | | |
|-----------|-----------|---|--|----------------|----------------|
| Magnesium | 7439-95-4 | Not applicable | Not applicable | Not applicable | Not applicable |

16. Other information

| | |
|-------------------------|---|
| Prepared By | Product Safety Department Email: chem.techinfo@thermofisher.com www.thermofisher.com |
| Creation Date | 17-January-2011 |
| Revision Date | 28-December-2025 |
| Print Date | 28-December-2025 |
| Revision Summary | This document has been updated to comply with the requirements of WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) to align with the Globally Harmonised System (GHS) (V7/8) for the Classification and Labelling of Chemicals. |

Disclaimer

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End of SDS