

# SAFETY DATA SHEET

**1. Identification**

**Product identifier:** MAGNESIUM METAL, TURNINGS AND RIBBON

**Other means of identification**

**Product No.:** 2418, 26795

**Recommended use and restriction on use**

**Recommended use:** Not determined.

**Restrictions on use:** Not determined.

**Details of the supplier of the safety data sheet**

	Avantor Performance Materials, LLC.
	3477 Corporate Parkway
	Center Valley, PA 18034
Telephone:	
	Customer Service: 855-282-6867
Fax:	610-573-2610
Contact Person:	Environmental Health & Safety
E-mail:	info@avantormaterials.com

**Emergency telephone number:**

CHEMTREC: 1-800-424-9300 within US and Canada

**2. Hazard(s) identification**

**Hazard Classification**

**Physical Hazards**

Self-heating substances and mixtures	Category 1
Substances and mixtures, which in contact with water, emit flammable gases	Category 1

**Unknown toxicity - Health**

Acute toxicity, oral	100 %
Acute toxicity, dermal	100 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	100 %

**Unknown toxicity - Environment**

Acute hazards to the aquatic environment	100 %
Chronic hazards to the aquatic environment	100 %

**Label Elements**

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:** In contact with water releases flammable gases.  
Self-heating: may catch fire.

**Precautionary Statements**

**Prevention:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not allow contact with air. Wear protective gloves/protective clothing/eye protection/face protection. Keep cool. Protect from sunlight.

**Response:** Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

**Storage:** Protect from sunlight. Maintain air gap between stacks or pallets. Store separately.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification:** None.

**3. Composition/information on ingredients**

**Substances**

Chemical name	Common name and synonyms	CAS number	Content in percent (%)*
Magnesium		7439-95-4	99 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. First-aid measures**

**General information:** Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

**Ingestion:** Rinse mouth. Get medical attention if symptoms occur.

**Inhalation:** Move to fresh air. Get medical attention if symptoms persist.

**Skin Contact:** Wash skin thoroughly with soap and water for several minutes. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse.

**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation persists after washing.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** May cause skin and eye irritation.

**Hazards:** None known.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Treat symptomatically. Symptoms may be delayed.

**5. Fire-fighting measures**

**General Fire Hazards:** In case of fire and/or explosion do not breathe fumes. Dust may form explosive mixture with air.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Dry chemical.

**Unsuitable extinguishing media:** Water, CO2 or Foam

**Specific hazards arising from the chemical:** Material may react violently with water. Contact with water liberates flammable gas. Self-heating: may catch fire.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Fight fire from a protected location. Move containers from fire area if you can do so without risk.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Keep upwind. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. See Section 8 of the SDS for Personal Protective Equipment.

**Methods and material for containment and cleaning up:** In case of leakage, eliminate all ignition sources. Avoid water on spilled material or leaking containers. Pick up with vacuum or absorbent solid, store in closed container for disposal. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

<b>Notification Procedures:</b>	Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.
<b>Environmental Precautions:</b>	Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

**7. Handling and storage**

<b>Precautions for safe handling:</b>	DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ventilating/lighting] equipment. Use non-sparking tools. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wash hands thoroughly after handling.
<b>Conditions for safe storage, including any incompatibilities:</b>	Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a cool, well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

None of the components have assigned exposure limits.

**Appropriate Engineering Controls**

No data available.

**Individual protection measures, such as personal protective equipment**

<b>General information:</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.
<b>Eye/face protection:</b>	Wear safety glasses with side shields (or goggles).
<b>Skin Protection</b>	
<b>Hand Protection:</b>	Chemical resistant gloves
<b>Other:</b>	Wear suitable protective clothing.
<b>Respiratory Protection:</b>	In case of inadequate ventilation use suitable respirator.
<b>Hygiene measures:</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.

**9. Physical and chemical properties**

### Appearance

<b>Physical state:</b>	Solid
<b>Form:</b>	Solid
<b>Color:</b>	Silver
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	651 °C
<b>Initial boiling point and boiling range:</b>	1.100 °C
<b>Flash Point:</b>	500 °C
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	0,13 kPa (621 °C)
<b>Vapor density:</b>	No data available.
<b>Density:</b>	1,74 g/ml (20 °C)
<b>Relative density:</b>	1,738 (20 °C)
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Insoluble
<b>Solubility (other):</b>	mineral acids: Soluble
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	883 °F
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.
<b>Other information</b>	
<b>Molecular weight:</b>	24,31 g/mol (Mg)

## 10. Stability and reactivity

<b>Reactivity:</b>	Reacts violently with water, liberating extremely flammable gases. Contact with acid liberates flammable material.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Moisture. Heat, sparks, flames. Contact with incompatible materials.
<b>Incompatible Materials:</b>	Strong oxidizing agents. Acids. Cyanides.
<b>Hazardous Decomposition Products:</b>	By heating and fire, toxic vapors/gases may be formed. Contact with water liberates flammable gas.

## 11. Toxicological information

### Information on likely routes of exposure

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<b>Inhalation:</b>	May cause irritation to the respiratory system.
<b>Skin Contact:</b>	May cause irritation.
<b>Eye contact:</b>	May cause temporary eye irritation.
<b>Ingestion:</b>	May cause irritation of the gastrointestinal tract.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

<b>Oral</b>	
<b>Product:</b>	No data available.
<b>Dermal</b>	
<b>Product:</b>	No data available.
<b>Inhalation</b>	
<b>Product:</b>	No data available.

<b>Repeated dose toxicity</b>	
<b>Product:</b>	No data available.

<b>Skin Corrosion/Irritation</b>	
<b>Product:</b>	May cause skin irritation.

<b>Serious Eye Damage/Eye Irritation</b>	
<b>Product:</b>	May irritate eyes.

<b>Respiratory or Skin Sensitization</b>	
<b>Product:</b>	Not a skin sensitizer.

<b>Carcinogenicity</b>	
<b>Product:</b>	This substance has no evidence of carcinogenic properties.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No carcinogenic components identified

**ACGIH Carcinogen List:**  
No carcinogenic components identified

**Germ Cell Mutagenicity**

<b>In vitro</b>	
<b>Product:</b>	No mutagenic components identified

<b>In vivo</b>	
<b>Product:</b>	No mutagenic components identified

<b>Reproductive toxicity</b>	
<b>Product:</b>	No components toxic to reproduction

<b>Specific Target Organ Toxicity - Single Exposure</b>	
<b>Product:</b>	No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** Not classified

**Other effects:** None known.

<b>12. Ecological information</b>
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**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** There are no data on the degradability of this product.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available on bioaccumulation.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Mobility in soil:** No data available.

**Known or predicted distribution to environmental compartments**

Magnesium No data available.

**Other adverse effects:** The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

### 13. Disposal considerations

- Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Contaminated Packaging:** Since emptied containers retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### TDG

UN Number:	UN 1869
UN Proper Shipping Name:	MAGNESIUM
Transport Hazard Class(es)	
Class:	4.1
Label(s):	4.1
Packing Group:	III
Marine Pollutant:	No
Special precautions for user:	Not determined.

#### IMDG

UN Number:	UN 1869
UN Proper Shipping Name:	MAGNESIUM
Transport Hazard Class(es)	
Class:	4.1
Label(s):	4.1
EmS No.:	F-G, S-G
Packing Group:	III
Marine Pollutant:	No
Special precautions for user:	Not determined.

#### IATA

UN Number:	UN 1869
UN Proper Shipping Name:	Magnesium
Transport Hazard Class(es):	
Class:	4.1
Label(s):	4.1
Packing Group:	III
Marine Pollutant:	No
Special precautions for user:	Not determined.
Cargo aircraft only:	Allowed.

**Transport in bulk according to Annex II of MARPOL and the IBC Code:** Not applicable

### 15. Regulatory information

#### Canada Federal Regulations

##### List of Toxic Substances (CEPA, Schedule 1)

Not Regulated

##### Export Control List (CEPA 1999, Schedule 3)

Not Regulated



**National Pollutant Release Inventory (NPRI)**

**Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**

NPRI PT5 Not Regulated

**Canada. National Pollutant Release Inventory (NPRI) (Schedule 1, Parts 1-4)**

NPRI Not Regulated

**Greenhouse Gases**

Not Regulated

**Controlled Drugs and Substances Act**

CA CDSI Not Regulated

CA CDSII Not Regulated

CA CDSIII Not Regulated

CA CDSIV Not Regulated

CA CDSV Not Regulated

CA CDSVII Not Regulated

CA CDSVIII Not Regulated

**Precursor Control Regulations**

Not Regulated

**International regulations**

**Montreal protocol**

Not applicable

**Stockholm convention**

Not applicable

**Rotterdam convention**

Not applicable

**Kyoto protocol**

Not applicable

**Inventory Status:**

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory
Japan (ENCS) List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

<b>16. Other information, including date of preparation or last revision</b>
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**Revision Date:** 24.05.2018

**Version #:** 1.1

**Further Information:** No data available.

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