



# SAFETY DATA SHEET

**MATERION**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Name of the substance** Magnesium Powder  
**Identification number** 012-002-00-9 (Index number)  
**Registration number** -  
**Document number** 2HR  
**Synonyms** Magnesium  
**Materion Code** 2HR  
**Issue date** 17-November-2017  
**Revision date** 20-May-2020

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

**Company name** Materion Advanced Chemicals Inc.  
**Address** 407 N. 13th Street  
1316 W. St. Paul Avenue  
Milwaukee, WI 53233  
United States  
**Division** Milwaukee  
**Telephone** 414.212.0257  
**e-mail** advancedmaterials@materion.com  
**Contact person** Laura Hamilton

### 1.4. Emergency telephone number

**Supersedes date** 06-March-2018  
**Version number** 04

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** Not available.  
**Uses advised against** None known.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Physical hazards

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

**Hazard summary** Not available.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** Magnesium Powder

#### Hazard pictograms



**Signal word** Danger

**Hazard statements** The substance does not meet the criteria for classification.

#### Precautionary statements

**Prevention**  
P223 Do not allow contact with water.

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.  
 P231 + P232 Handle under inert gas. Protect from moisture.  
 P235 + P410 Keep cool. Protect from sunlight.  
 P280 Wear protective gloves/eye protection/face protection.

**Response**

P335 + P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.  
 P370 + P378 In case of fire: Use appropriate media to extinguish.

**Storage**

P402 + P404 Store in a dry place. Store in a closed container.  
 P407 Maintain air gap between stacks/pallets.  
 P420 Store away from other materials.

**Disposal**

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Supplemental label information**

For further information, please contact the Product Stewardship Department at +1.800.862.4118.

**2.3. Other hazards**

None known.

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

**3.1. Substances**

**General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Magnesium Powder	100	7439-95-4 231-104-6	-	012-002-00-9	
<b>Classification:</b>	-				T

**List of abbreviations and symbols that may be used above**

CLP: Regulation No. 1272/2008.  
 DSD: Directive 67/548/EEC.  
 M: M-factor  
 vPvB: very persistent and very bioaccumulative substance.  
 PBT: persistent, bioaccumulative and toxic substance.  
 #: This substance has been assigned Community workplace exposure limit(s).

**SECTION 4: First aid measures**

**General information**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**4.1. Description of first aid measures**

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.  
**Skin contact** Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. Get medical attention if irritation develops and persists.  
**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.  
**Ingestion** Get medical advice/attention if you feel unwell.

**4.2. Most important symptoms and effects, both acute and delayed**

Direct contact with eyes may cause temporary irritation.

**4.3. Indication of any immediate medical attention and special treatment needed**

Provide general supportive measures and treat symptomatically.

**SECTION 5: Firefighting measures**

**General fire hazards**

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

**5.1. Extinguishing media**

**Suitable extinguishing media** Powder. Dry sand.

**Unsuitable extinguishing media** Water. Do not use water jet as an extinguisher, as this will spread the fire.

<b>5.2. Special hazards arising from the substance or mixture</b>	In contact with water releases flammable gases.
<b>5.3. Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	Wear suitable protective equipment.
<b>Special firefighting procedures</b>	Do not get water inside container.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.
<b>For emergency responders</b>	Keep unnecessary personnel away.

**6.2. Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

**6.3. Methods and material for containment and cleaning up** Do not get water on spilled substance or inside containers. Stop the flow of material, if this is without risk. Following product recovery, flush area with water.

**6.4. Reference to other sections** Not available.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling** Keep away from any possible contact with water, because of violent reaction and possible flash fire. Handle under inert gas. Keep cool. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**7.2. Conditions for safe storage, including any incompatibilities** Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a dry place. Store away from other materials. Never allow product to get in contact with water during storage. Maintain air gap between stacks/pallets.

**7.3. Specific end use(s)** Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Recommended monitoring procedures</b>	Follow standard monitoring procedures.
<b>Derived no effect levels (DNELs)</b>	Not available.
<b>Predicted no effect concentrations (PNECs)</b>	Not available.

### 8.2. Exposure controls

**Appropriate engineering controls** General ventilation normally adequate.

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

<b>General information</b>	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
<b>Eye/face protection</b>	Wear eye/face protection. Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
- <b>Hand protection</b>	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
- <b>Other</b>	Wear suitable protective clothing. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
<b>Respiratory protection</b>	Respiratory protection not required.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.

**Hygiene measures** 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.

**Environmental exposure controls** Not available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state** Solid.

**Form** Solid.

**Colour** Not available.

**Odour** Not available.

**Odour threshold** Not available.

**pH** Not available.

**Melting point/freezing point** 651 °C (1203,8 °F)

**Initial boiling point and boiling range** 1100 °C (2012 °F)

**Flash point** 500,0 °C (932,0 °F)

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not available.

#### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Vapour pressure** < 0,0000001 kPa (25 °C (77 °F))

**Vapour density** Not available.

**Relative density** Not available.

#### Solubility(ies)

**Solubility (water)** Not available.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** 472,78 °C (883 °F)

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Explosive properties** Not explosive.

**Oxidising properties** Not oxidising.

### 9.2. Other information

**Density** 1,74 g/cm<sup>3</sup> estimated at 20 °C

**Dynamic viscosity** 1,25 mPa.s

**Kinematic viscosity** 0,7193 mm<sup>2</sup>/s estimated

**Molecular formula** Mg

**Molecular weight** 24,3 g/mol

**Specific gravity** 1,74 at 20 °C

**Surface tension** 563 mN/m (20 °C (68 °F))

## SECTION 10: Stability and reactivity

**10.1. Reactivity** Keep away from combustible material. Not available.

**10.2. Chemical stability** Material is stable under normal conditions.

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

**10.4. Conditions to avoid** Exposure to moisture. Contact with water liberates flammable gas. Moisture. Heat. Contact with incompatible materials.

**10.5. Incompatible materials** Combustible material. None known.

**10.6. Hazardous decomposition products** Hydrogen chloride.

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

**Inhalation** Due to lack of data the classification is not possible.

**Skin contact** Due to lack of data the classification is not possible.

**Eye contact** Due to lack of data the classification is not possible.

**Ingestion** Due to lack of data the classification is not possible.

**Symptoms** Exposure may cause temporary irritation, redness, or discomfort.

### 11.1. Information on toxicological effects

**Acute toxicity** No data available.

**Skin corrosion/irritation** Due to partial or complete lack of data the classification is not possible.

**Serious eye damage/eye irritation** Due to partial or complete lack of data the classification is not possible.

**Respiratory sensitisation** Due to partial or complete lack of data the classification is not possible.

**Skin sensitisation** Due to partial or complete lack of data the classification is not possible.

**Germ cell mutagenicity** Due to partial or complete lack of data the classification is not possible.

**Carcinogenicity** Due to partial or complete lack of data the classification is not possible.

**Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)**

Not listed.

**Reproductive toxicity** Due to partial or complete lack of data the classification is not possible.

**Specific target organ toxicity - single exposure** Due to partial or complete lack of data the classification is not possible.

**Specific target organ toxicity - repeated exposure** Due to partial or complete lack of data the classification is not possible.

**Aspiration hazard** Due to partial or complete lack of data the classification is not possible.

**Mixture versus substance information** No information available.

**Other information** Not available.

## SECTION 12: Ecological information

**12.1. Toxicity** The product is 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.

**12.2. Persistence and degradability** No data is available on the degradability of this product.

**12.3. Bioaccumulative potential** No data available.

**Partition coefficient n-octanol/water (log Kow)** Not available.

**Bioconcentration factor (BCF)** Not available.

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

**12.5. Results of PBT and vPvB assessment** Not a PBT or vPvB substance or mixture.

**12.6. Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Residual waste** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**EU waste code** The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Disposal methods/information** Consult authorities before disposal. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Special precautions** Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

**14.1. UN number** UN1418  
**14.2. UN proper shipping name** MAGNESIUM POWDER or MAGNESIUM ALLOYS POWDER  
**14.3. Transport hazard class(es)**  
**Class** 4.3  
**Subsidiary risk** 4.2  
**Label(s)** 4.3  
+4.2  
**Hazard No. (ADR)** 423  
**Tunnel restriction code** E  
**14.4. Packing group** III  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Not available.

### RID

**14.1. UN number** UN1418  
**14.2. UN proper shipping name** MAGNESIUM POWDER or MAGNESIUM ALLOYS POWDER  
**14.3. Transport hazard class(es)**  
**Class** 4.3  
**Subsidiary risk** 4.2  
**Label(s)** 4.3+4.2  
**14.4. Packing group** III  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Not available.

### ADN

**14.1. UN number** UN1418  
**14.2. UN proper shipping name** MAGNESIUM POWDER or MAGNESIUM ALLOYS POWDER  
**14.3. Transport hazard class(es)**  
**Class** 4.3  
**Subsidiary risk** 4.2  
**Label(s)** 4.3+4.2  
**14.4. Packing group** III  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Not available.

### IATA

**14.1. UN number** UN1418  
**14.2. UN proper shipping name** TOXIC, FLAMMABLE, WATER REACTIVE (Magnesium powder)  
**14.3. Transport hazard class(es)**  
**Class** 4.3  
**Subsidiary risk** 4.2  
**14.4. Packing group** II  
**14.5. Environmental hazards** No.  
**14.6. Special precautions for user** Not available.  
**Other information**  
**Passenger and cargo aircraft** Allowed with restrictions.  
**Cargo aircraft only** Allowed with restrictions.

## IMDG

<b>14.1. UN number</b>	UN1418
<b>14.2. UN proper shipping name</b>	TOXIC, FLAMMABLE, WATER REACTIVE (Magnesium powder)
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	4.3
<b>Subsidiary risk</b>	4.2
<b>14.4. Packing group</b>	II
<b>14.5. Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	Not available.
<b>14.6. Special precautions for user</b>	Not available.

ADN; ADR; IATA; IMDG; RID



## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**  
Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**  
Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**  
Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**  
Not listed.

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**  
Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**  
Magnesium Powder (CAS 7439-95-4)

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**  
Not listed.

#### Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**  
Magnesium Powder (CAS 7439-95-4)

<b>Other regulations</b>	The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.
<b>National regulations</b>	Follow national regulation for work with chemical agents.
<b>15.2. Chemical safety assessment</b>	No Chemical Safety Assessment has been carried out.

## **SECTION 16: Other information**

<b>List of abbreviations</b>	Not available.
<b>References</b>	Not available.
<b>Training information</b>	Follow training instructions when handling this material.
<b>Disclaimer</b>	<p>Materion Advanced Chemicals Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This document has been prepared using data from sources considered to be technically reliable and the information is believed to be correct. Materion makes no warranties, expressed or implied, as to the accuracy of the information contained herein. Materion cannot anticipate all conditions under which this information and its products may be used and the actual conditions of use are beyond its control. The user is responsible to evaluate all available information when using this product for any particular use and to comply with all Federal, State, Provincial and Local laws, statutes and regulations.</p>