



# Safety Data Sheet

## ADVANCED MATERIALS

### MAGNIFIN® H-5 GV; MAGNIFIN® H-5 HV; MAGNIFIN® H-5 MV; MAGNIFIN® H-10 MV

This material safety datasheet has been prepared according to Brazilian legislation and ABNT NBR 14725:2014 GHS (Globally Harmonized System)

Issue Date 29/Sep/2022  
Print Date 29/Sep/2022

Revision Number 1.3.1

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

### 1.1. Product identifier

**Product Name:** MAGNIFIN® H-5 GV; MAGNIFIN® H-5 HV; MAGNIFIN® H-5 MV; MAGNIFIN® H-10 MV  
**Chemical Name** Magnesium Hydroxide (surface modified)  
**Pure substance/mixture** Mixture

#### Magnesium Hydroxide

**CAS Number** 1309-42-8  
**Weight-%** >=97

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

**Recommended Use** Additive : Flame retardant  
**Uses advised against** None known.

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

**Company:** MARTINSWERK GmbH  
Kölner Strasse 110  
50127 Bergheim  
Germany  
Tel. : +49-2271-90.22.78  
Fax. : +49-2271-90.27.17

**Internet** [www.hubermaterials.com](http://www.hubermaterials.com)

**E-mail** [hubermaterials@huber.com](mailto:hubermaterials@huber.com)

**1.4. Emergency telephone number** CHEMTREC: +1 800 424 9300 or International +1 703 527 3887

## SECTION 2: Hazards identification

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**Brazil Ministry of Transport** This product is not part of the Hazardous Products Classification established by the Brazilian Federal Department of Transportation's Administrative Ruling 204 from 5/20/1997.

### 2.1. Classification of the substance or mixture

**Physical Hazards** Not classified

**Health Hazards** Not classified

**Environmental Hazard** Not classified

### 2.2. Label elements

**Symbols/Pictograms** None.

**Signal Word** None.

**Hazard Statements** None

### Precautionary Statements

**Prevention** Employ good industrial hygiene practice  
Do not handle until all safety precautions have been read and understood  
Do not breathe dust  
Wear protective gloves/protective clothing/eye protection/face protection

**Response** IF exposed or concerned: Get medical advice/attention  
Wash with plenty of soap and water

**Storage** Store away from incompatible materials  
Keep in a dry place

**Disposal** Dispose of contents/containers in accordance with local regulations

## SECTION 3: Composition/information on ingredients

Pure substance/mixture

Mixture

| Chemical Name       | CAS Number | TSCA: United States | EU REACH registration number | GHS Classification | Weight-% |
|---------------------|------------|---------------------|------------------------------|--------------------|----------|
| Magnesium Hydroxide | 1309-42-8  | A                   | 01-2119488756-18-00<br>40    | Not classified.    | >=97     |

Additional information

TSCA A: Component is listed on Inventory as Active

## SECTION 4: First aid measures

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#### 4.1. Description of first aid measures

|  |  |
|--|--|
| <b>General Advice</b>  | When in doubt or if symptoms are observed, get medical advice. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| <b>Eye Contact</b>   | In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.                                       |
| <b>Skin Contact</b>  | Wash with plenty of soap and water.  |
| <b>Ingestion</b>   | Rinse mouth thoroughly with water.   |
| <b>Inhalation</b>  | Do not breathe dust. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.   |
| <b>Aspiration hazard</b>   | Based on available data, the classification criteria are not met.  |
| <b>4.2. Most important symptoms and effects, both acute and delayed</b>                | Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin.   |
| <b>4.3. Indication of any immediate medical attention and special treatment needed</b> | Treat symptomatically. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.        |

## SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

|                                       |  |
|---------------------------------------|--|
| <b>Suitable Extinguishing Media</b>   | Use extinguishing agent suitable for type of surrounding fire. Water spray (fog). Dry chemical. Foam. Carbon dioxide (CO <sub>2</sub> ). |
| <b>Unsuitable Extinguishing Media</b> | Do not use water jetstream.  |

#### 5.2. Special hazards arising from the substance or mixture

Non-combustible.

#### 5.3. Advice for firefighters

|  |   |
|--|---|
| <b>Special protective equipment for firefighters</b> | Wear a self-contained breathing apparatus and chemical protective clothing. |
| <b>Fire-fighting measures</b>                        | Water mist may be used to cool closed containers.                           |

## SECTION 6: Accidental release measures

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

Keep unauthorized personnel away  
 Ensure adequate ventilation  
 Avoid dust formation  
 Use personal protection recommended in Section 8

**For non-emergency personnel** Keep unauthorized personnel away.

**For emergency responders** Keep unauthorized personnel away  
 Use personal protection recommended in Section 8

**6.2. Environmental precautions** Avoid runoff to waterways and sewers.

**6.3. Methods and material for containment and cleaning up** Large Spill: Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust Small Spill: Vacuum or sweep material and place in a disposal container The use of water wash down is not recommended unless the spilled material is already wet

**6.4. Reference to other sections** Section 8: Exposure controls and personal protection. See Section 13 for additional waste treatment information.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Avoid exposure - obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood.  
 Minimize dust generation and accumulation  
 Do not breathe dust  
 Ensure adequate ventilation  
 Wear appropriate personal protective clothing to prevent skin contact  
 Handle in accordance with good industrial hygiene and safety practice

**7.2. Conditions for safe storage, including any incompatibilities** Keep container tightly closed and dry. Store away from incompatible materials.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational exposure limits****Magnesium Hydroxide - 1309-42-8**

|        |  |
|--------|--|
| OSHA   | TWA: 15 mg/m <sup>3</sup> total dust<br>5 mg/m <sup>3</sup> respirable                         |
| NIOSH  | TWA: 15 mg/m <sup>3</sup> (total dust)   |
| ACGIH  | TLV-TWA: 8-hr : 10 mg/m <sup>3</sup> (total dust)<br>3 mg/m <sup>3</sup> (respirable fraction) |
| Mexico | TWA/OEL (VLE-PPT): Not established   |

**PNEC (Predicted No Effect Concentration)**

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**Biological Limit Values** No information available

## 8.2. Exposure controls

### Engineering Measures

Do not handle until all safety precautions have been read and understood  
 Ensure adequate ventilation, especially in confined areas  
 Provide a good standard of controlled ventilation (10 to 15 air changes per hour)  
 Use exhaust ventilation to keep airborne concentrations below exposure limits  
 In case of insufficient ventilation, wear suitable respiratory equipment

### Personal protective equipment

**Eye/Face Protection** Wear safety glasses with side shields (or goggles).

**Skin and Body Protection** Wear suitable protective clothing.

**Hand Protection** For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

**Respiratory Protection** In case of inadequate ventilation wear respiratory protection.

**Thermal hazards** None known. Wear suitable protective clothing.

**Hygiene Measures** No information available.

**Environmental Exposure Controls** Dispose of in accordance with local regulations.

## SECTION 9: Physical and chemical properties

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

|                                       |  |
|---------------------------------------|--|
| <b>Physical State</b>                 | Solid.   |
| <b>Color</b>                          | White  |
| <b>Odor</b>                           | Odorless   |
| <b>Odor Threshold</b>                 | No information available                         |
| <b>pH:</b>                            | +/- 10 (10% H <sub>2</sub> O)                    |
| <b>Melting point / Freezing point</b> | Not applicable                                   |
| <b>Initial boiling point</b>          | Not available                                    |
| <b>Flash Point</b>                    | Not applicable<br>Product/Substance is inorganic |
| <b>Evaporation Rate</b>               | Not applicable                                   |
| <b>Flammability (solid, gas)</b>      | Not applicable                                   |
| <b>Vapor Pressure</b>                 | Not applicable                                   |

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|                              |   |
|------------------------------|---|
| Vapor Density                | Not applicable                                |
| Relative Density             | 2.4 g/cm <sup>3</sup> , 20° C                 |
| Water Solubility             | Insoluble                                     |
| Partition coefficient        | Not applicable Product/Substance is inorganic |
| Autoignition Temperature     | Not applicable                                |
| Decomposition Temperature    | > 320 °C                                      |
| Viscosity                    | Not applicable                                |
| Explosive Properties         | Not applicable                                |
| Oxidizing Properties         | None  |
| VOC Content (%)              | Not applicable                                |
| Solubility in other solvents | No data available                             |
| 9.2. Other information       | No data available                             |

## SECTION 10: Stability and reactivity

|  |  |
|--|--|
| 10.1. Reactivity                         | None.  |
| 10.2. Chemical stability                 | Stable under normal conditions.                                |
| 10.3. Possibility of hazardous reactions | No specific hazard known.                                      |
| 10.4. Conditions to avoid                | Decomposition Temperature. < / =0.3%. ∴ MgO, H <sub>2</sub> O. |
| 10.6. Hazardous decomposition products   | None known.  |

## SECTION 11: Toxicological information

**General Information** Users are advised to consider national Occupational Exposure Limits or other equivalent values.

### Information on Likely Routes of Exposure

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | Avoid inhalation of the product. Inhalation of dust may cause irritation of the respiratory system. |
| <b>Skin</b>       | Avoid prolonged or repeated contact with skin.  |

|   |   |
|---|---|
| <b>Eyes</b>   | Avoid contact with eyes. Dust contact with the eyes can lead to mechanical irritation.                                      |
| <b>Ingestion</b>  | Ingestion is not a likely route of exposure.  |
| <b>Aspiration hazard</b>  | Based on available data, the classification criteria are not met.   |
| <b>Symptoms related to the physical, chemical and toxicological characteristics</b> | Signs and symptoms may include coughing, gasping, choking and difficulty breathing. Contact with eyes may cause irritation. |

### 11.1. Information on toxicological effects

#### Magnesium Hydroxide - 1309-42-8

Oral LD50 8500 mg/kg Rat

|   |  |
|---|--|
| <b>Acute Toxicity</b>                                     | Based on available data, the classification criteria are not met                                       |
| <b>Chronic Toxicity</b>                                   | Based on available data, the classification criteria are not met.                                      |
| <b>Chronic Effects</b>                                    | Based on available data, the classification criteria are not met.                                      |
| <b>Respiratory Sensitization</b>                          | Based on available data, the classification criteria are not met.                                      |
| <b>Skin Sensitization</b>                                 | Based on available data, the classification criteria are not met.                                      |
| <b>Germ cell mutagenicity</b>                             | Based on available data, the classification criteria are not met.                                      |
| <b>Reproductive Toxicity</b>                              | Based on available data, the classification criteria are not met.                                      |
| <b>Carcinogenicity</b>                                    | This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. |
| <b>Specific target organ toxicity - Single exposure</b>   | No information available.  |
| <b>Specific target organ toxicity - Repeated exposure</b> | No information available.  |
| <b>Mixture versus substance information</b>               | No information available.  |

## SECTION 12: Ecological information

12.1. Ecotoxicity Not classified.

#### Magnesium Hydroxide - 1309-42-8

WGK Classification (AwSV) 5209 WGK: nwg

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|   |  |
|---|--|
| <b>12.2. Persistence and degradability</b>      | Not biodegradable.   |
| <b>12.3. Bioaccumulative potential</b>          | This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). |
| <b>Partition coefficient</b>                    | Not applicable. Product/Substance is inorganic.  |
| <b>Bioconcentration factor (BCF)</b>            | Not available.   |
| <b>12.4. Mobility in soil</b>                   | No data available.   |
| <b>12.5. Results of PBT and vPvB assessment</b> | This substance does not meet the criteria for classification as PBT or vPvB.                     |
| <b>12.6. Other adverse effects</b>              | None known   |

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

|                               |  |
|-------------------------------|--|
| <b>Contaminated Packaging</b> | Product residue may remain in empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. |
| <b>Waste codes</b>            | Waste codes should be assigned by the user based on the application for which the product was used   |
| <b>Disposal Methods</b>       | Dispose of waste product or used containers according to local regulations   |

**Magnesium Hydroxide - 1309-42-8**  
European Waste Catalog 060299

## SECTION 14: Transport information

### Mode of Transportation (Road, Water, Air, Rail)

|                        |               |
|------------------------|---------------|
| <b>ADR</b>             | Not regulated |
| <b>RID</b>             | Not regulated |
| <b>IATA</b>            | Not regulated |
| <b>IMDG/IMO</b>        | Not regulated |
| <b>ICAO</b>            | Not regulated |
| <b>14.1. UN number</b> | None          |



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14.2. UN proper shipping name None

14.3. Transport hazard class(es) None

14.4. Packing group None

14.5. Environmental hazards No

14.6. Special precautions for user Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  
Not applicable

### SECTION 15: Regulatory information

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

##### Global Inventories

| Chemical Name       | CAS Number | EC No     | EU REACH registration number  | Australia (AIC) | Canada (DSL) | China (IECSC) | Japan                       | S. Korea (KECL) | Mexico | New Zealand | Philippines (PICCS) | Taiwan | TSCA: United States |
|---------------------|------------|-----------|-------------------------------|-----------------|--------------|---------------|-----------------------------|-----------------|--------|-------------|---------------------|--------|---------------------|
| Magnesium Hydroxide | 1309-42-8  | 215-170-3 | 01-211948<br>8756-18-0<br>040 | Y               | Y            | Y             | (1)-386<br>(ENCS)<br>(ISHL) | KE-22716        | Y      | Y           | Y                   | Y      | A                   |

##### Legend

X / Y: Complies ; A: Active ; - / N: Exempt / Not Listed

Information on risks and safety as written on the label

Health - Blue

Flammability - Red

Physical Hazard - Yellow

Special - White

4- Extreme

3- High

2- Moderate

1- Low

0- Minimum

### SECTION 16: Other information

Prepared by

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### Reason for Version

Brasil: ABNT NRB 14725-4: 2014.

### Training Advice

Do not handle until all safety precautions have been read and understood.

### Abbreviations and acronyms

IARC (International Agency for Research on Cancer)  
IATA (International Air Transport Association)  
IMDG (International Maritime Dangerous Goods)  
IUCLID (International Uniform Chemical Information Database)  
WHMIS (Workplace Hazardous Materials Information System)  
DOT (Department of Transportation)  
OSHA (Occupational Safety and Health Administration of the US Department of Labor)  
TWA (Time-Weighted Average)  
CLP (The Classification, Labeling and Packaging of Substances and Mixtures Regulation (EC 1272/2008))  
PPE (Personal Protection Equipment)  
NIOSH (National Institute for Occupational Safety and Health)  
TDG (Transport of Dangerous Goods) Canada  
CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)  
RQ (Reportable Quantity) (RQ/% in mixture)  
STEL (Short Term Exposure Limit)  
TLV® (Threshold Limit Value)  
DNEL (Derived No Effect Level)  
SVHC (Substances of Very High Concern)  
BOD (Biochemical oxygen demand)  
COD (Chemical oxygen demand)  
ICAO (International Civil Aviation Organization)  
IMDG (International Maritime Dangerous Goods)  
SCBA (Self-Contained Breathing Apparatus) Positive Pressure  
PNEC (Predicted No Effect Concentration)  
GHS (Globally Harmonized System)  
TSCA (Toxic Substances Control Act)

### 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 Safety Data Sheet**