

## MAGNIFIN® H-5 IV; MAGNIFIN® H-10 IV

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006  
COMMISSION REGULATION (EU) No. 2020/878

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

### 1.1. Product identifier

**Product Name:** MAGNIFIN® H-5 IV; MAGNIFIN® H-10 IV

**Pure substance/mixture** Mixture

| Chemical Name       | CAS Number | EC No     | EU REACH registration number | (CLP) Regulation (EC 1272/2008) | Weight-% |
|---------------------|------------|-----------|------------------------------|---------------------------------|----------|
| Magnesium hydroxide | 1309-42-8  | 215-170-3 | 01-2119488756-18-0000        | Not classified                  | >=97     |

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

**Recommended Use** Flame retardant Additive

**Industrial use**

- Production substance
- Production of plastics and rubber compounds
- Formulation flame retardant preparation
- Compounds used in transport industry
- Compounds used in electrical application
- Compounds used in building and construction
- Use in coatings, inks, paints and roofing
- Recycling plastics
- pH Regulating agent
- Production of corrosion inhibitors
- Use as corrosion inhibitor of gas turbines and boilers
- Production of Magnesium compounds
- Manufacture and formulation of pharmaceutical preparations
- PVC stabilizer
- Use in cleaning agents
- Use in oil field operations
- Use in lubricants
- Use in metal working fluids
- Use in blowing agents
- Use in binders and release agents
- Fuels
- Use in functional fluids
- Use in agrochemicals
- Use in water treatment chemicals
- Use in mining chemicals
- Deacidification agent for paper
- Polymer processing
- Abrasive for glass industry, ceramics and stones

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**Professional use**

- Use in coatings, inks, paints and roofing
- Use in agrochemicals
- Use in cleaning agents
- Use in metal working fluids
- Use in propellants
- Fuels
- Use in functional fluids
- De-icing & anti-icing applications
- Road and construction applications
- Use in explosives
- Use in water treatment chemicals
- Polymer processing
- Use in lubricants
- Use in binders and release agents

**Consumer use**

- Cosmetic additive
- Use in coatings, inks, paints and roofing
- Use in cleaning agents
- Use in lubricants
- Use in propellants
- Fuels
- Use in functional fluids
- De-icing & anti-icing applications
- Use in water treatment chemicals

**Uses advised against**      None known.

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

**Manufacturer**

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

**Poison control center phone number**      National Anti-Poison Center UK: +44 844 892 0111 (National Poisons Information Service)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

(CLP) Regulation (EC 1272/2008) Not classified

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### Hazards identification

|                      |                |
|----------------------|----------------|
| Physical Hazard      | Not classified |
| Health Hazards       | Not classified |
| Environmental Hazard | Not classified |

### 2.2. Label elements

|                    |                                                                                                                                                                                                                      |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Symbols/Pictograms | None                                                                                                                                                                                                                 |
| Signal Word        | None                                                                                                                                                                                                                 |
| Hazard Statements  | This product is not classified as hazardous according to the UN GHS guideline and labeling is not required<br>This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) |

### Precautionary Statements

|            |                                                                                                                                                                                   |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prevention | Employ good industrial hygiene practice<br>Wash hands thoroughly after handling                                                                                                   |
| Response   | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing<br>IF ON SKIN: Wash with plenty of soap and water |
| Storage    | Keep in a dry place<br>Store away from incompatible materials                                                                                                                     |
| Disposal   | Disposal should be in accordance with applicable regional, national and local laws and regulations.                                                                               |

2.3. Other hazards No information available.

## SECTION 3: Composition/information on ingredients

3.1. Substance Not applicable

3.2. Mixture Mixture

| Chemical Name       | CAS Number | EC No     | EU REACH registration number | (CLP) Regulation (EC 1272/2008) | Annex | Weight-% |
|---------------------|------------|-----------|------------------------------|---------------------------------|-------|----------|
| Magnesium hydroxide | 1309-42-8  | 215-170-3 | 01-2119488756-18-0000        | Not classified                  | --    | >=97     |

## SECTION 4: First aid measures

4.1. Description of first aid measures

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|                                                                                                |                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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>Inhalation</b>                                                                              | Do not breathe dust. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.                                                                 |
| <b>Ingestion</b>                                                                               | Rinse mouth thoroughly with water.                                                                                                                                             |
| <b>Aspiration hazard</b>                                                                       | Based on available data, the classification criteria are not met.                                                                                                              |
| <b>Notes to Physician</b>                                                                      | Treat symptomatically.                                                                                                                                                         |
| <b>Personal Protective Equipment<br/>For First Aid Responders</b>                              | Wear suitable protective clothing.                                                                                                                                             |
| <b>4.2. Most important symptoms<br/>and effects, both acute and<br/>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<br/>medical attention and special<br/>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

#### **Suitable Extinguishing Media**

Use extinguishing agent suitable for type of surrounding fire. Water spray (fog). Dry chemical. Foam. Carbon dioxide (CO<sub>2</sub>).

#### **Unsuitable Extinguishing Media**

Do not use water jetstream.

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

Non-combustible.

### 5.3. Advice for firefighters

#### **Special protective equipment for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

#### **Fire-fighting measures**

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Water mist may be used to cool closed containers.

### SECTION 6: Accidental release measures

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

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

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

#### 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  
Ensure adequate ventilation  
Handle in accordance with good industrial hygiene and safety practice  
Use personal protective equipment as required

#### 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

ACGIH

OSHA

NIOSH

Estonia

STEL: Not established

TWA: Not established

TWA: Not established

1 mg/m<sup>3</sup> total dust

0.5 mg/m<sup>3</sup> respirable dust

#### Recommended monitoring

Refer also to national guidance documents for information on currently

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**procedures** recommended monitoring procedures

**Biological Limit Values** None

### Magnesium hydroxide

|                                                    |                          |
|----------------------------------------------------|--------------------------|
| Worker - dermal, short-term - systemic             | 16.67 mg/kg bw/d         |
| Worker - inhalative, long-term - systemic          | 16.67 mg/kg bw/d         |
| Worker - inhalative, short-term - systemic         | 117.54 mg/m <sup>3</sup> |
| Worker - inhalative, long-term - systemic          | 117.54 mg/m <sup>3</sup> |
| Consumer - oral, short-term - systemic             | 10 mg/kg bw/d            |
| Consumer - oral, long-term - systemic              | 10 mg/kg bw/d            |
| Consumer - dermal, short-term - local and systemic | 10 mg/kg bw/d            |
| Consumer - dermal, long-term - systemic            | 10 mg/kg bw/d            |
| Consumer - inhalative, short-term - systemic       | 34.78 mg/m <sup>3</sup>  |
| Consumer - inhalative, short-term - systemic       | 34.78 mg/m <sup>3</sup>  |

### Magnesium hydroxide

|                             |                  |
|-----------------------------|------------------|
| Fresh Water                 | 0.1 mg/l         |
| Marine water                | 0.01 mg/l        |
| Marine water - intermittent | 1 mg/l           |
| Freshwater sediment         | 0.082 mg/kg dw   |
| Marine sediment             | 0.0082 mg/kg dw  |
| Soil                        | 0.01912 mg/kg dw |
| Sewage treatment plant      | 1 mg/l           |
| Secondary poisoning         | 66.67 mg/kg food |

## 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.

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|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Thermal hazards                 | None known.                                     |
| 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

#### Appearance:

|                                         |                                               |
|-----------------------------------------|-----------------------------------------------|
| Physical State                          | Solid Powder                                  |
| Color                                   | White                                         |
| Odor                                    | Odorless                                      |
| Odor Threshold                          | No information available                      |
| pH:                                     | +/- 10 (10% H <sub>2</sub> O)                 |
| Melting point / Freezing point          | Not applicable Decomposes at > 320 °C         |
| Initial boiling point and boiling range | Not applicable                                |
| Freezing Point                          | Not applicable                                |
| Flash Point                             | Not applicable Product/Substance is inorganic |
| Evaporation Rate                        | Not applicable.                               |
| Flammability (solid, gas)               | Not applicable                                |
| Upper flammability limit:               | --                                            |
| Lower flammability limit:               | --                                            |
| Vapor Pressure                          | Not applicable                                |
| Vapor Density                           | Not applicable                                |
| Vapor Density                           | Not applicable                                |
| Density                                 | No data available                             |
| Relative Density                        | 2.4 g/cm <sup>3</sup> , 20° C                 |
| Water Solubility                        | Insoluble                                     |
| Solubility in other solvents            | No data available                             |
| Partition coefficient                   | Not applicable Product/Substance is inorganic |
| Autoignition Temperature                | Not applicable                                |
| Decomposition Temperature               | > 320 °C                                      |
| Viscosity                               | No information available.                     |
| Kinematic viscosity                     | Not applicable : Solid                        |
| Dynamic viscosity                       | Not applicable : Solid                        |
| Oxidizing Properties                    | None                                          |
| Particle Size                           | No information available                      |
| VOC Content (%)                         | Not applicable                                |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

Not applicable

#### 9.2.2. Other safety characteristics

Not applicable

## SECTION 10: Stability and reactivity

|                                                 |                                                             |
|-------------------------------------------------|-------------------------------------------------------------|
| <b>10.1. Reactivity</b>                         | Stable under normal conditions                              |
| <b>10.2. Chemical stability</b>                 | Stable under normal conditions                              |
| <b>10.3. Possibility of hazardous reactions</b> | No specific hazard known                                    |
| <b>10.4. Conditions to avoid</b>                | Decomposition Temperature < / =0.3% : MgO, H <sub>2</sub> O |
| <b>10.5. Incompatible materials</b>             | None known                                                  |
| <b>10.6. Hazardous decomposition products</b>   | None known                                                  |

## SECTION 11: Toxicological information

|                            |                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------|
| <b>General Information</b> | Users are advised to consider national Occupational Exposure Limits or other equivalent values. |
|----------------------------|-------------------------------------------------------------------------------------------------|

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Magnesium hydroxide

|                                          |                                                                                               |
|------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Oral LD50</b>                         | > 2000 mg/kg mg/kg Rat                                                                        |
| <b>Inhalation LC50</b>                   | > 2.1 mg/L 4- hours                                                                           |
| <b>Chronic Effects</b>                   | NOAEL (No observed adverse effect level) >1000 mg/kg bw/day                                   |
| <b>Serious eye damage/eye irritation</b> | Rabbit : Non-irritant<br>Dust may cause mechanical irritation to eyes                         |
| <b>Skin Corrosion/Irritation</b>         | in vitro : Non-irritating to the skin<br>Repeated exposure may cause skin dryness or cracking |
| <b>Reproductive Toxicity</b>             | Not classified<br>NOAEL (No observed adverse effect level) 1000 mg/kg bw/day                  |

|                                                         |                           |
|---------------------------------------------------------|---------------------------|
| <b>Specific target organ toxicity - Single exposure</b> | No information available. |
|---------------------------------------------------------|---------------------------|

|                                                           |                 |
|-----------------------------------------------------------|-----------------|
| <b>Specific target organ toxicity - Repeated exposure</b> | Not classified. |
|-----------------------------------------------------------|-----------------|

#### Information on Likely Routes of Exposure

|                   |                                                                 |
|-------------------|-----------------------------------------------------------------|
| <b>Inhalation</b> | Avoid inhalation of the product                                 |
| <b>Ingestion</b>  | Ingestion is not a likely route of exposure                     |
| <b>Skin</b>       | Prolonged or repeated contact may dry skin and cause irritation |



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**Eyes** Dust contact with the eyes can lead to mechanical irritation

**Aspiration hazard** Based on available data, the classification criteria are not met.

### 11.2. Information on other hazards

**11.2.1. Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors

**11.2.2. Other information** Not applicable

## SECTION 12: Ecological information

**12.1. Toxicity** Not considered to be harmful to aquatic life

### Magnesium hydroxide

**96-Hour LC50** 776 mg/l Fish

**72-Hour EC50** > 100 mg/L Algae

**48-Hour EC50** 170.86 mg/l Daphnia Magna (Water Flea)

**WGK Classification (AwSV)** 5209. WGK: nwg

**12.2. Persistence and degradability** No data available.

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

**Partition coefficient** Not applicable Product/Substance is inorganic

**Bioconcentration factor (BCF)** No data available.

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

**12.5. Results of PBT and vPvB assessment** No data available.

**12.6. Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal Methods** Disposal should be in accordance with applicable regional, national and local laws and regulations.

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**Magnesium hydroxide**  
WGK Classification (AwSV) 5209. WGK: nwg

| Chemical Name | CAS Number | EC No | Australia (AIIIC) | Canada (DSL) | China (IECSC) | Japan | S. Korea (KECL) | Mexico | Thailand (TECI) | New Zealand | Philippines (PICCS) | Taiwan | TSCA: United States |
|---------------|------------|-------|-------------------|--------------|---------------|-------|-----------------|--------|-----------------|-------------|---------------------|--------|---------------------|
|---------------|------------|-------|-------------------|--------------|---------------|-------|-----------------|--------|-----------------|-------------|---------------------|--------|---------------------|

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|---------------------|-----------|-----------|---|---|---|--------------------|----------|---|-------------|---|---|---|---|
| Magnesium hydroxide | 1309-42-8 | 215-170-3 | Y | Y | Y | (1)-386 ENCS; ISHL | KE-22716 | Y | 55-1-0134 3 | Y | Y | Y | A |
|---------------------|-----------|-----------|---|---|---|--------------------|----------|---|-------------|---|---|---|---|

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

### REACH No.

#### Magnesium hydroxide

EU REACH registration number 01-2119488756-18-0000

Turkish KKDIK pre-registration 05-0000192696-66-0000

### Germany

Not considered to be harmful to aquatic life

#### Magnesium hydroxide

WGK Classification (AwSV) 5209. WGK: nwg

### 15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance

## SECTION 16: Other information

#### Reason for Revision

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 & COMMISSION REGULATION (EU) No. 2020/878

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#### Prepared by

Huber Engineered Materials Global Regulatory Affairs  
email: regulatory.affairs@huber.com.

(CLP) Regulation (EC 1272/2008) Not classified

#### Labeling

Symbols/Pictograms

None

Signal Word

None

Hazard Statements

This product is not classified as hazardous according to the UN GHS guideline and labeling is not required. This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

#### Training Advice

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

#### Abbreviations and acronyms

IARC (International Agency for Research on Cancer)  
IUCLID (International Uniform Chemical Information Database)  
WHMIS (Workplace Hazardous Materials Information System)  
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

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1272/2008))  
PPE (Personal Protection Equipment)  
NIOSH (National Institute for Occupational Safety and Health)  
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)  
ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
RID (Agreement Concerning the International Carriage of Dangerous Goods by Rail)  
IATA (International Air Transport Association)  
IMDG (International Maritime Dangerous Goods)  
DOT (Department of Transportation)  
TDG (Transport of Dangerous Goods) Canada  
PNEC (Predicted No Effect Concentration)  
SCBA (Self-Contained Breathing Apparatus) Positive Pressure  
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**