

MAGNIFIN® H-5A; MAGNIFIN® H-10A

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

Issue Date 15/Feb/2023

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Revision Number 1.3.1

Page 1 of 12

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

1.1. Product identifier

Product Name: MAGNIFIN® H-5A; MAGNIFIN® H-10A

Chemical Name Magnesium Hydroxide (surface modified)

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
Surface modified magnesium hydroxide with substituted silane	Proprietary	Proprietary	--	Not classified	1-2

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

Recommended Use Additive : Flame retardant

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

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Safety Data Sheet

MAGNIFIN® H-5A; MAGNIFIN® H-10A

Issue Date 15/Feb/2023
Print Date 15/Feb/2023

Revision Number 1.3.1
Page 2 of 12

Deacidification agent for paper
Polymer processing
Abrasive for glass industry, ceramics and stones

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

Internet www.hubermaterials.com

E-mail 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

Hazards identification

Physical Hazard Not classified

HUBER

Safety Data Sheet

MAGNIFIN® H-5A; MAGNIFIN® H-10A

Issue Date 15/Feb/2023
Print Date 15/Feb/2023

Revision Number 1.3.1
Page 3 of 12

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
This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Precautionary Statements

Prevention Employ good industrial hygiene practice
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
IF ON SKIN: Wash with plenty of soap and water

Storage Keep in a dry place
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
Surface modified magnesium hydroxide with substituted silane	Proprietary	Proprietary	--	Not classified	--	1-2

SECTION 4: First aid measures

4.1. Description of first aid measures

HUBER

Safety Data Sheet

MAGNIFIN® H-5A; MAGNIFIN® H-10A

Issue Date 15/Feb/2023
Print Date 15/Feb/2023

Revision Number 1.3.1
Page 4 of 12

General Advice	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.
Eye Contact	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Skin Contact	Wash with plenty of soap and water.
Inhalation	Do not breathe dust. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
Ingestion	Rinse mouth thoroughly with water.
Aspiration hazard	Based on available data, the classification criteria are not met.
Notes to Physician	Treat symptomatically.
Personal Protective Equipment For First Aid Responders	Wear suitable protective clothing.
4.2. Most important symptoms and effects, both acute and delayed	Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin.
4.3. Indication of any immediate medical attention and special treatment needed	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 (CO₂).

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

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/m³ total dust
0.5 mg/m³ respirable dust

Recommended monitoring procedures

Refer also to national guidance documents for information on currently recommended monitoring procedures

Safety Data Sheet

MAGNIFIN® H-5A; MAGNIFIN® H-10A

Issue Date 15/Feb/2023

Print Date 15/Feb/2023

Revision Number 1.3.1

Page 6 of 12

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 ³
Worker - inhalative, long-term - systemic	117.54 mg/m ³
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 ³
Consumer - inhalative, short-term - systemic	34.78 mg/m ³

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.

Issue Date 15/Feb/2023
Print Date 15/Feb/2023

Revision Number 1.3.1
Page 7 of 12

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 ₂ 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 ³ , 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

10.1. Reactivity	Stable under normal conditions
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 MgO, H ₂ O
10.5. Incompatible materials	None known
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.
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11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**Magnesium hydroxide**

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

Surface modified magnesium hydroxide with substituted silane

Oral LD50	8 mL/kg Rat
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Specific target organ toxicity - Single exposure	No information available.
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Specific target organ toxicity - Repeated exposure	No information available.
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Information on Likely Routes of Exposure

Inhalation	Avoid inhalation of the product
Ingestion	Ingestion is not a likely route of exposure

Safety Data Sheet

MAGNIFIN® H-5A; MAGNIFIN® H-10A

Issue Date 15/Feb/2023
Print Date 15/Feb/2023

Revision Number 1.3.1
Page 9 of 12

Skin	Prolonged or repeated contact may dry skin and cause irritation
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

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

Surface modified magnesium hydroxide with substituted silane

WGK Classification (AwSV)	WGK:1
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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

Safety Data Sheet

MAGNIFIN® H-5A; MAGNIFIN® H-10A

Issue Date 15/Feb/2023
Print Date 15/Feb/2023

Revision Number 1.3.1
Page 10 of 12

Disposal Methods	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Product residue may remain in empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.
Waste codes	Waste codes should be assigned by the user based on the application for which the product was used

Magnesium hydroxide

WGK Classification (AwSV) 5209. WGK: nwg

Surface modified magnesium hydroxide with substituted silane

WGK Classification (AwSV) WGK:1

SECTION 14: Transport information

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

TDG -Canada	Not regulated
DOT	Not regulated
ADR	Not regulated
RID	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated
ICAO	Not regulated

- 14.1. UN number or ID number None
- 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. Maritime transport in bulk according to IMO instruments
Not applicable

SECTION 15: Regulatory information

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

Global Inventories

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Safety Data Sheet

MAGNIFIN® H-5A; MAGNIFIN® H-10A

Issue Date 15/Feb/2023
Print Date 15/Feb/2023

Revision Number 1.3.1
Page 11 of 12

Pure substance/mixture Mixture

Chemical Name	CAS Number	EC No	Australia (AIC)	Canada (DSL)	China (IECSC)	Japan	S. Korea (KECL)	Mexico	Thailand (TECI)	New Zealand	Philippines (PICCS)	Taiwan	TSCA: United States
Magnesium hydroxide	1309-42-8	215-170-3	Y	Y	Y	(1)-386 ENCS; ISHL	KE-22716	Y	55-1-01343	Y	Y	Y	A
Surface modified magnesium hydroxide with substituted silane	Proprietary	Proprietary	Y	Y	Y	Y	Y	N	55-1-06198	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

Surface modified magnesium hydroxide with substituted silane

EU REACH registration number --

Turkish KKDIK pre-registration 05-0000192710-85-0000

Germany

Magnesium hydroxide

WGK Classification (AwSV) 5209. WGK: nwg

Surface modified magnesium hydroxide with substituted silane

WGK Classification (AwSV) WGK:1

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

Issue Date

15/Feb/2023

Print Date

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Revision Number

1.3.1

Prepared by

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

Labeling

HUBER

Safety Data Sheet

MAGNIFIN® H-5A; MAGNIFIN® H-10A

Issue Date 15/Feb/2023

Print Date 15/Feb/2023

Revision Number 1.3.1

Page 12 of 12

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 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