

**MAGNIFIN® H-5A; MAGNIFIN® H-10A**

Japan-JIS Z 7253:2019  
Occupational Safety and Health Act  
GHS (Globally Harmonized System)

Issue Date 21/Aug/2023

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Revision Number 1.3.2

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**1. PRODUCT AND COMPANY IDENTIFICATION**

Product Name:	MAGNIFIN® H-5A; MAGNIFIN® H-10A
Chemical Name	Magnesium Hydroxide (surface modified)
Pure substance/mixture	Mixture
<u>Magnesium hydroxide</u>	
CAS Number	1309-42-8
Weight-%	>=97
<u>Surface modified magnesium hydroxide with substituted silane</u>	
CAS Number	Proprietary
Weight-%	1-2
Recommended Use	Additive : Flame retardant
Company:	MARTINSWERK GmbH Kölner Strasse 110 50127 Bergheim Germany Tel. : +49-2271-90.22.78 Fax. : +49-2271-90.27.17
Internet	<a href="http://www.huberadvancedmaterials.com">www.huberadvancedmaterials.com</a>
E-mail	<a href="mailto:hubermaterials@huber.com">hubermaterials@huber.com</a>
Emergency Telephone Number	CHEMTREC: +1 800 424 9300 or International +1 703 527 3887 +81 03-3560-7316

**2. HAZARD IDENTIFICATION**

Japan GHS Classification	
Physical Hazards	Not classified
Health Hazard	Not classified
Environmental Hazards	Not classified
GHS label elements	
Symbols/Pictograms	None
Signal Word	None
Hazard statements	Based on available data, the classification criteria are not met
Precautionary Statements	

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<b>Prevention</b>	Do not handle until all safety precautions have been read and understood Employ good industrial hygiene practice Do not breathe dust
<b>Response</b>	IF exposed or concerned: Get medical advice/attention Wash with plenty of soap and water
<b>Storage</b>	Store away from incompatible materials. Keep in a dry place
<b>Disposal</b>	Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture

Mixture

Chemical Name	CAS Number	Weight-%
Magnesium hydroxide	1309-42-8	>=97
Surface modified magnesium hydroxide with substituted silane	Proprietary	1-2

### 4. FIRST AID MEASURES

<b>If inhaled:</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing
<b>IF ON SKIN:</b>	Wash with plenty of soap and water Take off contaminated clothing and wash before reuse
<b>IF IN EYES:</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 Call a physician if irritation develops and persists
<b>If swallowed:</b>	Rinse mouth thoroughly with water
<b>Self-Protection of the First Aider</b>	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves
<b>Notes to Physician</b>	Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Water spray (fog) Foam Dry chemical Carbon dioxide (CO2)
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**Unsuitable Extinguishing Media** Do not use water jetstream**Special hazards arising from the substance or mixture** Avoid dust formation**Fire-fighting measures**  
In case of fire and/or explosion do not breathe fumes  
Water mist may be used to cool closed containers  
Keep unauthorized personnel away**Special Protective Equipment for Firefighters** Wear self-contained breathing apparatus and protective suit

## 6. ACCIDENTAL RELEASE MEASURES

**Protective Equipment and Precautions for Firefighters**  
Avoid dust formation  
Ensure adequate ventilation  
Use personal protection recommended in Section 8  
Avoid contact with eyes and skin. Wear suitable personal protection equipment.  
Keep unauthorized personnel away**Environmental Precautions**  
Keep out of drains, sewers, ditches and waterways  
Disposal considerations  
See section 13 for more information**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 Minimize use of water during clean-up  
Recommended filter type: High efficiency particulate air filter (HEPA filter)**Other Information** Not applicable

## 7. HANDLING AND STORAGE

**Handling****Technical measures**  
Provide adequate ventilation as well as local exhaust at critical locations  
Ensure adequate ventilation  
Use personal protection equipment  
See section 8 for more information**Advice on safe handling** Minimize dust generation and accumulation**Conditions for safe storage, including any incompatibilities** Keep containers tightly closed in a cool, well-ventilated place**Hygiene Measures** Wash hands thoroughly after handling**Storage****Packaging compatibilities** Keep/store only in original container

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits** Provide adequate ventilation as well as local exhaust at critical locations

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### Magnesium hydroxide

Japan

TWA: Not established

#### Engineering Measures

Ensure adequate ventilation, especially in confined areas

#### Personal Protective Equipment

##### Respiratory Protection

In case of inadequate ventilation wear respiratory protection

##### Hand protection

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

##### Eye Protection

Wear safety glasses with side shields (or goggles)

##### Skin and Body Protection

Wear suitable protective clothing.  
Chemical resistant apron.

##### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice  
Wash thoroughly after handling  
Avoid contact with eyes and skin  
Do not breathe dust

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

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Other information: No data available

## 10. STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	None known
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	None known

## 11. TOXICOLOGICAL INFORMATION

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

### Information on Likely Routes of Exposure

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

### 11.1. Information on toxicological effects

#### 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

**Specific target organ toxicity - Single exposure** No information available.

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**Specific target organ toxicity - Repeated exposure** No information available.

## 12. ECOLOGICAL INFORMATION

### 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)

**Ecotoxicity** Based on available data, the classification criteria are not met

**Persistence and degradability** No data available

**Bioaccumulation** No data available.

**Mobility in soil** No data available

**Hazardous to the ozone layer** No data available

## 13. DISPOSAL CONSIDERATIONS

**Disposal** Dispose of in accordance with federal, state and local regulations

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal

## 14. TRANSPORT INFORMATION

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

ADR	Not regulated
RID	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated
ICAO	Not regulated

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

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## 15. REGULATORY INFORMATION

**Occupational Safety and Health Act** Not regulated

**Poisonous and Deleterious Substances Control Act** Not regulated

**Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.** Not regulated

**Japanese Pollutant Release and Transfer Register - Class 1 Substance** Not regulated

**Ship Safety Law, Dangerous Goods Marine Transport and Storage Rule** Not regulated

### Global Inventories

**Pure substance/mixture** Mixture

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 8756-18-0 000	Y	Y	Y	(1)-386 ENCS; ISHL	KE-22716	Y	Y	Y	Y	A
Surface modified magnesium hydroxide with substituted silane	Proprietary	Proprietary	--	Y	Y	Y	Y	Y	N	Y	Y	Y	A

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

### Legend-Inventories

KECL - Korean Existing and Evaluated Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

TSCA (Toxic Substances Control Act)

DSL (Domestic Substance List)

NDSL (Non-Domestic Substances List)

Japan - ISHL Notifiable Substances

ENCS - Japan Existing and New Chemical Substances

## 16. OTHER INFORMATION

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**Reason for Revision**

This SDS complies with the requirements of JIS Z 7250:2010 and JIS Z 7252:2009 (Japan)

**Bibliography**

NITE GHS Classified list  
Japan Society for occupational health (2015) recommendation of allowable concentrations, etc.  
ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value

**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)  
ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
RID (Agreement Concerning the International Carriage of Dangerous Goods by Rail)  
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**