

# SAFETY DATA SHEET

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

MOL No. 2009-68 Standards for Classification and Labeling of Chemical Substances and Safety Data Sheet (SDS)

Issue Date: 22/Jul/2019  
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Revision Number: 1.3  
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### Section 1: PRODUCT AND COMPANY IDENTIFICATION

**A. Product name** MAGNIFIN® H-5 IV; MAGNIFIN® H-10 IV

**Pure substance/mixture** Mixture

**Magnesium hydroxide**

**CAS Number** 1309-42-8

**Weight-%** >=97

**B. Recommended use and Limitations on use**

**Recommended Use** Flame retardant Additive

**Uses advised against** None known

**C. Supplier information**

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### Section 2: HAZARDS IDENTIFICATION

**A. Hazard category/Classification**

**Physical Hazards** Not classified

**Health Hazards** Not classified

**Environmental Hazards** Not classified

**B. Warning label items including precautionary statement**

**Label Elements**

**Symbols/Pictograms** None

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**Signal Words** None**Hazard Statements** None**Precautionary statement****Prevention** Employ good industrial hygiene practice**Response** Wash skin with soap and water**Storage** Store away from incompatible materials**Disposal** Disposal should be in accordance with applicable regional, national and local laws and regulations**C. Other hazards not included in the hazard category criteria (e.g. dust explosion hazard)**

None known

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS****Pure substance/mixture**

Mixture

Chemical Name	CAS Number	S. Korea (KECL)	Korean GHS Classification	Weight-%
Magnesium hydroxide	1309-42-8	KE-22716	Not classified	>=97

**Section 4: FIRST AID MEASURES****A. In case of eye contact** Rinse with water. Get medical attention if irritation develops and persists.**B. In case of skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.**C. In case of inhalation** Move to fresh air. Call a physician if symptoms develop or persist.**D. In case of swallowing** Rinse mouth. Get medical attention if symptoms occur.**E. Note to physician** Treat symptomatically.**Section 5: FIRE FIGHTING MEASURES****A. Suitable (and unsuitable) extinguishing media****Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).**Unsuitable extinguishing media** None known

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**B. Specific hazards arising from the chemical (example: hazardous combustion products)**

Explosion hazard: None known

**C. Specific methods of fire-fighting**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. In the event of fire and/or explosion do not breathe fumes. Move container from fire area if it can be done without risk.

**Section 6: SPILLAGE, ACCIDENTAL RELEASE MEASURES**

**A. Personal precautions, protective equipment and emergency measures** Ensure adequate ventilation. Avoid dust formation. See section 8 for more information.

**B. Environmental precautions** Not considered to be harmful to aquatic life. Avoid discharge into drains, water courses or onto the ground.

**C. Methods and materials for containment and cleaning up** Vacuum or sweep material and place in a disposal container.

**Section 7: HANDLING AND STORAGE****A. Precautions for safe handling**

In case of exposure to environments exceeding the occupational exposure limit, wear a respirator in compliance with national legislation.

**B. Conditions for safe storage (including any incompatibilities)**

Keep container tightly closed in a dry and well-ventilated place

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****A. Exposure limit values, biological limit values, etc****Magnesium hydroxide**

Korea  
ACGIH  
OSHA

TWA: Not established  
STEL: Not established  
TWA: Not established

**B. Engineering 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

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**C. Personal protective equipment**

- **Eye protection** If contact is likely, safety glasses with side shields are recommended.
- **Hand protection** For prolonged or repeated skin contact use suitable protective gloves.
- **Body protection** Wear suitable protective clothing.

**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.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Solid Powder
<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>Melting point / Freezing point</b>	Decomposes at > 320 °C
<b>Initial boiling point and boiling range</b>	Not applicable
<b>Flash Point:</b>	Not applicable Product/Substance is inorganic
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper flammability limit:</b>	No data available
<b>Lower flammability limit:</b>	No data available
<b>Vapor Pressure</b>	Not applicable
<b>Vapor Density</b>	Not applicable
<b>Relative Density</b>	2.4 g/cm <sup>3</sup> , 20° C
<b>Water Solubility</b>	Insoluble
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient</b>	Not applicable Product/Substance is inorganic
<b>Autoignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	> 320 °C
<b>Kinematic viscosity</b>	Not applicable. ∴ Solid.
<b>Dynamic viscosity</b>	Not applicable. ∴ Solid.
<b>Oxidizing Properties</b>	None

**9.2. Other information**

No data available

**Section 10: STABILITY AND REACTIVITY****A. Stability and hazardous reaction potential**

**Stability** Stable under normal conditions

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**Hazardous reaction potential**

None known

**B. Conditions to avoid (e.g. static discharge, shock or Vibration, etc)** Avoid creating dust. Incompatible materials.

**C. Incompatible materials** Strong oxidizing agents

**D. Hazardous decomposition products** No hazardous decomposition products are known.

**Section 11: TOXICOLOGICAL INFORMATION****A. Information on likely routes of exposure**

- **Mouth** Not an expected route of exposure
- **Eyes** Dust contact with the eyes can lead to mechanical irritation
- **Skin** Prolonged skin contact may cause temporary irritation.

**B. Information on health hazards****Magnesium hydroxide**

- Oral LD50** > 2000 mg/kg mg/kg Rat  
**Inhalation LC50** > 2.1 mg/L 4- hours

**Magnesium hydroxide**

- 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

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

**Specific target organ toxicity - Repeated exposure** Not classified.

**Section 12: ECOLOGICAL INFORMATION****A. Ecotoxicity**

- Hazardous to the aquatic environment, acute hazard** Not classified  
Avoid runoff to waterways and sewers

- Hazardous to the aquatic environment, long-term** Not classified  
Avoid runoff to waterways and sewers

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hazard

Magnesium hydroxide

96-Hour LC50

776 mg/l. Fish.

72-Hour EC50

&gt; 100 mg/L. Algae.

48-Hour EC50

170.86 mg/l. Daphnia Magna (Water Flea).

B. Persistence/degradability No data available

C. Bioaccumulative potential No data available

D. Mobility in soil No data available

E. Other adverse effects No data available

**Section 13: DISPOSAL CONSIDERATIONS****A. Method of disposal**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

**B. Disposal considerations (including disposal of contaminated containers or packaging)** Disposal should be in accordance with applicable regional, national and local laws and regulations

**Section 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

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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

## National Regulations

Magnesium hydroxide

CAS Number 1309-42-8  
Weight-% >=97  
Korean GHS Classification Not classified

## Other domestic and foreign regulations

## Global Inventories

Chemical Name	CAS Number	EC No	REACH registration number	Australia (AICS)	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

**Legend**

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

## Section 16: OTHER INFORMATION

## A. Source of Information

**Abbreviations and acronyms**

International Agency for Research on Cancer (IARC)  
International Air Transport Association (IATA)  
International Maritime Dangerous Goods (IMDG)  
International Uniform Chemical Information Database (IUCLID)  
Workplace Hazardous Materials Information System (WHMIS) status and classification  
EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification  
DOT (Department of Transportation)  
OSHA (Occupational Safety and Health Administration of the US Department of Labor)  
TWA - Time-Weighted Average  
The Classification, Labeling and Packaging of Substances and Mixtures (CLP) 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)  
Reportable Quantity (RQ) (RQ/% in mixture)  
STEL - Short Term Exposure Limit  
TLV® - Threshold Limit Value  
Derived No Effect Level (DNEL)  
SVHC: Substances of Very High Concern for Authorization:

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Land transport (ADR/RID)  
Biochemical oxygen demand (BOD)  
Chemical oxygen demand (COD)  
ICAO (air)  
(IMDG) International Maritime Dangerous Goods  
Positive Pressure Self-Contained Breathing Apparatus (SCBA)  
Predicted No Effect Concentration (PNEC)  
Globally Harmonized System (GHS)

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**C. Number of revisions and Date 1.3  
of most recent revision**

**D. Other**

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**End of Safety Data Sheet**