Coated MagShield Magnesium Hydroxide

Safety Data Sheet

according to HSNO

Date of issue: 04/18/2014 Revision date: 03/30/2021 Version: 1.2

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

1.1. Product identifier

Product form : Substance

Trade name : MagShield S NB-10
MagShield UF NB-10
MagShield UF NB-10 CL

Chemical name : Magnesium hydroxide

CAS No : 1309-42-8

Formula : Mg(OH)2

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

Use of the substance/mixture : MagShield magnesium hydroxide is employed as a flame retardant in plastics that are used in molded parts for the transportation industry, plastic compounds for electrical applications and the construction industry, polymer processing, PVC compounds and thermoplastic olefin roofing.

1.3. Details of the supplier of the safety data sheet

Martin Marietta Magnesia Specialties
1800 Eastlake Road
Manistee, Michigan 49660, USA
Tel: +001 410 780 5500

1.4. Emergency telephone number

Emergency number : CHEMTREC, U.S.: 1-800-424-9300 INTERNATIONAL: +1-703-527-3887 Available 24/7
CHEMTREC New Zealand (Auckland)* +(64)-9810034 English

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS classification

Not classified

HSNO classification

Not classified

2.2. Label elements

GHS labelling

No labelling applicable

2.3. Other hazards

Other hazards not contributing to the classification : No additional hazards have been identified.

2.4. Unknown acute toxicity (GHS)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Substance type : Mono-constituent

Name : Coated MagShield Magnesium Hydroxide

CAS No : 1309-42-8

Name	Product identifier	%	GHS classification
Magnesium hydroxide	(CAS No) 1309-42-8	98	Not classified
Magnesium stearate	(CAS No) 557-04-0	<= 2.5	Not classified
Oxides of silicon, iron, aluminum, and calcium	(CAS No) mixture	1	Not classified

3.2. Mixture

Not applicable

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use. Do not breathe dust.

Symptoms/injuries after inhalation : Inhalation may cause: irritation, coughing, shortness of breath.

Symptoms/injuries after skin contact : Effects of skin contact may include: skin irritation.

Symptoms/injuries after eye contact : May cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional medical information found. If you feel unwell, seek medical advice.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Not combustible. If there is a fire nearby, use suitable extinguishing agents. Water fog. Carbon dioxide. Dry powder. Foam.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : If magnesium hydroxide is heated to the point of decompostion (>350 °C), it forms magnesium oxide and water. If magnesium oxide is heated to the point of volatilization (i.e., >1700 °C), magnesium oxide fumes may be generated.

Explosion hazard : Product is not explosive.

Reactivity : Reacts with : Incompatible materials.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : No additional risk management measures required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid creating or spreading dust.

6.1.1. For non-emergency personnel

Protective equipment : Where excessive dust may result, use approved respiratory protection equipment.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Where excessive dust may result, use approved respiratory protection equipment.

Emergency procedures : Ventilate area. If a major spill occurs, all personnel should be immediately evacuated and the area ventilated.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Do not allow minor leaks or spills to accumulate on walking surfaces. Contain and collect as any solid.

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of dust.

Hygiene measures : Smoking, eating and drinking should be prohibited in areas of storage and use. Always wash your hands immediately after handling this product, and once again before leaving the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Incompatible materials. Keep container closed when not in use.

Incompatible products : ACID (Strong) - vigorous reaction, heat generated; MALEIC ANHYDRIDE – Alkali and other alkaline earth compounds including magnesium compounds, will cause explosive decomposition of maleic anhydride; PHOSPHORUS – Phosphorus boiled with alkaline hydroxides yields mixed phosphines which may ignite spontaneously with air.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Magnesium hydroxide (1309-42-8)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ as Particulates (insoluble or poorly soluble) not otherwise specified 3 mg/m³ (respirable fraction / fraction respirable)
OSHA	OSHA PEL (TWA) (mg/m³)	10 mg/m³ (total dust) as inert or nuisance dust not otherwise regulated; 5 mg/m³ (respirable fraction) as inert or nuisance dust not otherwise regulated
Magnesium stearate (557-04-0)		
ACGIH	Not applicable	
OSHA	Not applicable	
Oxides of silicon, iron, aluminum, and calcium (mixture)		
ACGIH	Not applicable	
OSHA	Not applicable	
Inorganic silicates and carbonates (mixture)		
ACGIH	Not applicable	
OSHA	Not applicable	
Inorganic chloride salts (mixture)		
ACGIH	Not applicable	
OSHA	Not applicable	

8.2. Exposure controls

Appropriate engineering controls : Avoid dispersal of dust in the air (ie, clearing dust surfaces with compressed air). Provide local exhaust ventilation of closed transfer systems to minimize exposures.

Hand protection : No significant signs or symptoms indicative of any health hazard are expected to occur as a result of skin contact. It is a good industrial hygiene practice to minimize skin contact. Wear protective gloves. Dust impervious gloves.

Eye protection : Safety glasses with side guards should be worn to prevent injury from airborne particles and/or other eye contact with this product. Where excessive dust may result, wear goggles.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Powder.

Colour : White

Odour : Odorless

Odour threshold	:	No data available
pH	:	No data available
pH solution	:	≥ 10
Relative evaporation rate (butyl acetate=1)	:	No data available
Melting point	:	350 °C decomposes
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	Does not self-ignite
Decomposition temperature	:	> 350 °C
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	2.36 g/cm³
Solubility	:	Water: 6.9 mg/l
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	Product is not explosive.
Oxidising properties	:	No oxidizing properties.
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with : Incompatible materials.

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

ACID (Strong) - vigorous reaction, heat generated; MALEIC ANHYDRIDE – Alkali and other alkaline earth compounds including magnesium compounds, will cause explosive decomposition of maleic anhydride; PHOSPHORUS – Phosphorus boiled with alkaline hydroxides yields mixed phosphines which may ignite spontaneously with air.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

Magnesium hydroxide (1309-42-8)	
LD50 oral rat	> 2000 mg/kg OECD Guideline 423
LC50 inhalation rat (mg/l)	> 2.1 ml/m³ OECD Guideline 403. No mortality seen at this level.

Magnesium stearate (557-04-0)	
LD50 oral rat	> 1000 mg/kg

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

Serious eye damage/irritation	:	Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	:	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	:	Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	:	Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	:	Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	:	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	:	Not classified (Based on available data, the classification criteria are not met)
Likely routes of exposure	:	Skin and eyes contact, inhalation
Symptoms/injuries after inhalation	:	Inhalation may cause: irritation, coughing, shortness of breath.
Symptoms/injuries after skin contact	:	Effects of skin contact may include: skin irritation.
Symptoms/injuries after eye contact	:	May cause eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Magnesium hydroxide (1309-42-8)	
LC50 fishes 1	1293 mg/l Onchorinchus mykiss
EC50 Daphnia 1	284.76 mg/l
LC50 fish 2	511.31 mg/l P. promelas
ErC50 (algae)	> 100 mg/l

12.2. Persistence and degradability

Coated MagShield Magnesium Hydroxide (1309-42-8)	
Persistence and degradability	Not established.

Magnesium hydroxide (1309-42-8)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	Does not degrade although it does dissolve.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer	:	None known
Effect on the global warming	:	None known
Other information	:	Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	:	Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
Waste disposal recommendations	:	Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	:	Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Not considered a dangerous good for transport regulations

Additional information

Other information	:	No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. National regulations

Magnesium Hydroxide (1309-42-8)
Listed on the Australian Inventory of Chemical Substances (AICS). Listed on the New Zealand Inventory of Chemicals (NZIoC).

SECTION 16: Other information

Revision date : 03/30/2021

Data sources : ACGIH 210
European Chemicals Agency (ECHA) Registered Substances list. Accessed at http://apps.echa.europa.eu/registered/data/dossiers/DISS-9ea79197-1fe4-5688-e044-00144f67d031/AGGR-0e1e1da7-ccae-4cb9-a7d9-45a4191708ed_DISS-9ea79197-1fe4-5688-e044-00144f67d031.html#GEN_RESULTS_HD
Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
Merck Index, 11th edition
National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.

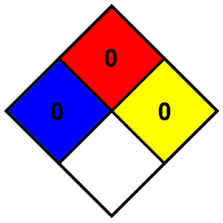
Abbreviations and acronyms : ACGIH (American Conference of Government Industrial Hygienists).
ATE: Acute Toxicity Estimate.
CAS (Chemical Abstracts Service) number.
EC50: Environmental Concentration associated with a response by 50% of the test population.
GHS: Globally Harmonized System (of Classification and Labeling) of Chemicals .
LD50: Lethal Dose for 50% of the test population.
OSHA: Occupational Safety & Health Administration.
TSCA: Toxic Substances Control Act.
TWA: Time Weighted Average.

Other information : None.

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



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