



MAGNESIUM MONTMORILLONATE

Safety Data Sheet SIM6470.7

Date of issue: 12/07/2017 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product name : MAGNESIUM MONTMORILLONATE
 Product code : SIM6470.7
 Product form : Substance
 Physical state : Solid
 Formula : $\text{Ca}_0.1\text{Na}_0.1\text{Mg}_2.25\text{Fe}_0.75\text{Si}_3\text{AlO}_{10}(\text{OH})_2 \cdot 4\text{H}_2\text{O}$
 Synonyms : SAPONITE
 Chemical family : INORGANIC SILICATE

1.2. Recommended use and restrictions on use

Recommended use : Chemical intermediate

1.3. Supplier

GELEST, INC.

11 East Steel Road
 Morrisville, PA 19067

USA

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

info@gelest.com - www.gelest.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Carcinogenicity Category 1A H350 May cause cancer

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
 Hazard statements (GHS US) : H350 - May cause cancer
 Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P308+P313 - If exposed or concerned: Get medical advice/attention.
 P405 - Store locked up.
 P501 - Dispose of contents/container to licensed waste disposal facility.

2.3. Hazards not otherwise classified (HNOC)

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Comments : Hazardous Components: Respirable dust may contain crystalline silica in the form of quartz.
 Substance type : Multi-constituent
 Name : MAGNESIUM MONTMORILLONATE

Name	Product identifier	%	GHS-US classification
Saponite	(CAS-No.) 1319-41-1	0 - 99	Not classified
Bentonite	(CAS-No.) 1302-78-9	0 - 99	Not classified
Silica, crystalline (quartz)	(CAS-No.) 14808-60-7	< 1	Carc. 1A, H350 STOT RE 1, H372

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Comments : (Crystalline silica is reported as total silica and not just the respirable fraction.)

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Wash with plenty of soap and water. Get medical advice/attention.
First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: May cause cancer.
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract. Exposure to respirable silica can cause silicosis, a fibrosis (scarring) of the lungs.
Symptoms/effects after skin contact	: May cause skin irritation. There is evidence that silica can exacerbate scleroderma, an immune disorder of the skin.
Symptoms/effects after eye contact	: May cause eye irritation. May cause abrasion of cornea.
Symptoms/effects after ingestion	: No information available.
Chronic symptoms	: There are small amounts of silica in this product. Silicosis can occur after many years of exposure to relatively low levels of airborne respirable silica. IARC has concluded that there was sufficient evidence of the carcinogenicity of crystalline silica to experimental animals, but that there was limited evidence of carcinogenicity of crystalline silica to humans.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Not combustible.
Unsuitable extinguishing media	: None known.

5.2. Specific hazards arising from the chemical

Fire hazard	: None known.
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5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	: Avoid contact with skin and eyes. Do not breathe dust.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Wear protective equipment as described in Section 8.
Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Sweep or shovel spills into appropriate container for disposal.
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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

Additional hazards when processed	: While not flammable, the ability of fumed silica to generate static charge may present a hazard when used in combination with flammable liquids.
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Precautions for safe handling	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Do not breathe dust. Avoid dust formation. Provide local exhaust or general room ventilation to minimize exposure to dust.
Hygiene measures	: Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep container tightly closed. Store locked up.
Incompatible materials	: None known.
Storage area	: Store in a well-ventilated place. Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Saponite (1319-41-1)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³ respirable; 15 mg/m ³ (total dust)
NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³ respirable; 15 mg/m ³ (total dust)
Silica, crystalline (quartz) (14808-60-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (respirable)
OSHA	OSHA PEL (TWA) (mg/m ³)	10 mg/m ³ respirable; 15 mg/m ³ (nuisance dust)
IDLH	US IDLH (mg/m ³)	50 mg/m ³
NIOSH	NIOSH REL (TWA) (mg/m ³)	0.05 (respirable)
Bentonite (1302-78-9)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³ respirable; 15 mg/m ³ (total dust)
NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³ respirable; 15 mg/m ³ (total dust)

8.2. Appropriate engineering controls

Appropriate engineering controls : Provide local exhaust or general room ventilation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Safety glasses. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Granular or powder.
Color	: White, light gray, tan or reddish tan.
Odor	: Earthy odor when wet.
Odor threshold	: No data available
Refractive index	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available

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Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.01 - 2.4
Solubility	: Insoluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.

This product contains a component that has been reported to be carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Silica, crystalline (quartz) (14808-60-7)

IARC group	1 - Carcinogenic to humans
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract. Exposure to respirable silica can cause silicosis, a fibrosis (scarring) of the lungs.

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Symptoms/effects after skin contact	: May cause skin irritation. There is evidence that silica can exacerbate scleroderma, an immune disorder of the skin.
Symptoms/effects after eye contact	: May cause eye irritation. May cause abrasion of cornea.
Symptoms/effects after ingestion	: No information available.
Chronic symptoms	: There are small amounts of silica in this product. Silicosis can occur after many years of exposure to relatively low levels of airborne respirable silica. IARC has concluded that there was sufficient evidence of the carcinogenicity of crystalline silica to experimental animals, but that there was limited evidence of carcinogenicity of crystalline silica to humans.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Product/Packaging disposal recommendations : Landfill. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

Not regulated for transport.

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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TSCA Exemption/Exclusion

Exempt-Naturally Occurring Substances in accordance with 40 CFR 710.4(b).

Saponite (1319-41-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Silica, crystalline (quartz) (14808-60-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Bentonite (1302-78-9)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

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Saponite (1319-41-1)

Listed on the Canadian NDSL (Non-Domestic Substances List)

Silica, crystalline (quartz) (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

Bentonite (1302-78-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Saponite (1319-41-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Silica, crystalline (quartz) (14808-60-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Bentonite (1302-78-9)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Saponite (1319-41-1)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Silica, crystalline (quartz) (14808-60-7)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Bentonite (1302-78-9)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the Korean ECL (Existing Chemicals List)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Full text of H-phrases::

H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure

Abbreviations and acronyms

: Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

Hazard Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability : 0 Minimal Hazard - Materials that will not burn
Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Prepared by safety and environmental affairs.

Date of issue: 12/07/2017

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SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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