

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



LAPONITE-7007

Version: 2.0
SDB_IE

Revision Date: 24.11.2025

Date of last issue: 05.06.2025
Print Date: 25.11.2025

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

1.1 Product identifier

Trade name : LAPONITE-7007

Product code : 000000000000121748

REACH Registration Number : 01-2119489772-23-0000, 01-2119489772-23-0004

Substance name : Magnesium sodium lithium silicate

EC-No. : 701-573-6

This substance/ mixture contains nanoforms (according to REACH Regulation)

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

Use of the Substance/Mixture : Rheology Additive

1.3 Details of the supplier of the safety data sheet

Company : BYK Additives Ltd.
Moorfield Road
WA8 3AA Widnes

Telephone : +44 151 495 2222

Telefax : +44 151 420 4401

Information : Regulatory Affairs

Telephone : +49 281 670-23532

Telefax : +49 281 670-23533

E-mail address : GHS.BYK@altana.com

1.4 Emergency telephone

+44 1235 239670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)
Not a hazardous substance or mixture.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)
No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

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2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : Magnesium sodium lithium silicate
EC-No. : 701-573-6
Chemical nature : Phyllosilicate

Components

Remarks : No hazardous ingredients

This substance/ mixture contains nanoforms (according to REACH Regulation)

Particle characteristics

Particle size : Further particle properties for nanomaterials see section 3
Assessment : This substance/ mixture contains nanoforms (according to REACH Regulation)

Components:

Magnesium sodium lithium silicate:

Particle characteristics

Assessment : This substance/ mixture contains nanoforms (according to REACH Regulation)
Shape : Shape: plates
Crystallinity : Crystallinity: crystalline
Surface treatment : Surface treatment: no

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/Coatings

SECTION 4: First aid measures

4.1 Description of first-aid measures

- | | | |
|-----------------------------|---|---|
| General advice | : | Do not leave the victim unattended. |
|
If inhaled | : |
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician. |
|
In case of skin contact | : |
Wash off with soap and water.
Get medical attention immediately if irritation develops and persists. |
|
In case of eye contact | : |
Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist. |
|
If swallowed | : |
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician. |

4.2 Most important symptoms and effects, both acute and delayed

- | | | |
|----------|---|--------------------------------|
| Symptoms | : | No symptoms known or expected. |
|----------|---|--------------------------------|

4.3 Indication of any immediate medical attention and special treatment needed

- | | | |
|-----------|---|------------------------|
| Treatment | : | Treat symptomatically. |
|-----------|---|------------------------|

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | | |
|------------------------------------|---|---|
| Suitable extinguishing media | : | Water spray
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Foam
Carbon dioxide (CO ₂)
Dry chemical |
|
Unsuitable extinguishing media | : |
High volume water jet |

5.2 Special hazards arising from the substance or mixture

- | | | |
|----------------------|---|--|
| Hazardous combustion | : | No hazardous combustion products are known |
|----------------------|---|--|

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products

5.3 Advice for firefighters

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid dust formation.

6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water courses.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Neutralize with acid.
Pick up and arrange disposal without creating dust.
Sweep up and shovel.
Keep in suitable, closed containers for disposal.

Use approved industrial vacuum cleaner for removal.
High efficiency particulate air filter (HEPA filter)

6.4 Reference to other sections

For disposal considerations see section 13., For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures : General industrial hygiene practice.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage : No materials to be especially mentioned.

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Further information on storage stability : Keep in a dry place.
No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

Further occupational exposure limits

Description	Value type	Control parameters	Basis
dusts non-specific	OELV - 8 hrs (TWA)	4 mg/m ³	IE OEL
	OELV - 8 hrs (TWA)	10 mg/m ³	IE OEL

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Routes of exposure	Potential health effects	Value
Magnesium sodium lithium silicate	Workers	Dermal	Acute systemic effects	40 mg/kg
	Exposure time: 24 h			
	Workers	Inhalation	Acute systemic effects	10 mg/m ³

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
Magnesium sodium lithium silicate	Water	0,1 mg/l

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Safety glasses
If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.

Hand protection

Remarks : Wear suitable gloves.
Use protective skin cream before handling the product. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Protective suit
Work uniform or laboratory coat.

Respiratory protection : In the case of dust or aerosol formation use respirator with an

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Filter type : approved filter.
No personal respiratory protective equipment normally required.
: Suitable mask with particle filter P3 (European Norm 143)

Environmental exposure controls

General advice : Try to prevent the material from entering drains or water courses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : powder

Color : off-white

Odor : odorless

Melting point/freezing point : Not applicable

Boiling point/boiling range : Not applicable

Flammability : Will not burn

Flash point : Not applicable

Autoignition temperature : No data available

Decomposition temperature : No data available

pH : 10,2
Concentration: 20 g/l

Viscosity

Viscosity, dynamic : Not applicable

Viscosity, kinematic : Not applicable

Vapor pressure : No data available

Density : 2,5 g/cm³ (20 °C)

Bulk density : 1.000 kg/m³

Particle characteristics

Assessment : This substance/ mixture contains nanoforms (according to REACH Regulation)

Particle size : Further particle properties for nanomaterials see section 3

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9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
No hazards to be specially mentioned.
Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : Strong acids and oxidizing agents

10.6 Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Not classified due to lack of data.

Product:

Acute oral toxicity : LD0 (Rat, female): > 2.000 mg/kg
Method: OECD Test Guideline 420
GLP: yes

Acute inhalation toxicity : LC50 (Rat, male and female): > 200 mg/l
Exposure time: 60 min
Test atmosphere: dust/mist
GLP: yes

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5.000 mg/kg
Method: estimated
GLP: yes

Skin corrosion/irritation

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

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Product:

Species : Rabbit
Method : Draize Test
Result : No skin irritation
GLP : yes

Species : Rabbit
Result : No skin irritation
GLP : no

Serious eye damage/eye irritation

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

Product:

Species : Bovine corneal opacity and permeability assay (BCOP)
Method : OECD Test Guideline 437
Result : No eye irritation
GLP : yes

Species : Rabbit
Result : No eye irritation
GLP : no

Respiratory or skin sensitization

Skin sensitization

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

Respiratory sensitization

Not classified due to lack of data.

Product:

Test Type : Mouse Local Lymph Node assay (LLNA)
Routes of exposure : Dermal
Species : Mouse
Method : OECD Test Guideline 429
Result : Does not cause skin sensitization.
GLP : yes

Germ cell mutagenicity

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

Product:

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test Type: Chromosome aberration test in vitro
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473

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Result: negative
GLP: yes

Test Type: In vitro mammalian cell gene mutation test (mouse lymphoma)

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Germ cell mutagenicity-
Assessment : In vitro tests did not show mutagenic effects

Carcinogenicity

Not classified due to lack of data.

Reproductive toxicity

Not classified due to lack of data.

STOT-single exposure

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

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

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

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Product:

Species : Rat, male and female
NOAEL : 50 mg/kg
LOAEL : 500 mg/kg
Application Route : Oral
GLP : no
Target Organs : Gastro-intestinal system

Aspiration toxicity

Not classified due to lack of data.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components

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considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Product:

Remarks : No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100
plants : mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
GLP: yes

Toxicity to microorganisms : EC50 (activated sludge): > 1.000 mg/l
Method: OECD Test Guideline 209
GLP: yes

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

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Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

SECTION 14: Transport information

14.1 UN number or ID number

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good

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IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.4 Packing group

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA (Cargo) : Not regulated as a dangerous good

IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 57).

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable

15.2 Chemical Safety Assessment

Not applicable

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SECTION 16: Other information

Items where relevant changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of other abbreviations

IE OEL : Ireland. List of Chemical Agents and Carcinogens with
Occupational Exposure Limit Values - Code of Practice,
Schedule 1 and 2
IE OEL / OELV - 8 hrs (TWA) : Occupational exposure limit value (8-hour reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

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

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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.

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