

LAPONITE-XL 21

Product code: 000000000000158444

Version 2.1 SDS_APJ_MY

Revision Date 14.02.2025

Print Date 19.02.2025

SECTION 1: Identification of the hazardous chemical and of the supplier**Product identifier**

Product name : LAPONITE-XL 21

Recommended use : Rheology Additive

Manufacturer or supplier's details

Company : BYK Additives Ltd.

Address : Moorfield Road
WA8 3AA Widnes

Telephone : +49 281 670-23532

Telefax : +49 281 670-23533

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

Emergency telephone number : +60 3 6207 4347 (Malay and English)
+65 3158 1074 (All languages)**SECTION 2: Hazards identification****Classification of the hazardous chemical**

Not a hazardous substance or mixture.

Label elements

Not a hazardous substance or mixture.

Other hazards which do not result in classification

Contaminated surfaces will be extremely slippery.

SECTION 3: Composition and information of the ingredients of the hazardous chemical

Substance / Mixture : Substance

Chemical nature : Synthetic (modified) phyllosilicate

Components

No hazardous ingredients

SECTION 4: First aid measures

General advice : Do not leave the victim unattended.

If inhaled : If breathed in, move person into fresh air.
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 if irritation develops and persists.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses.

Protect unharmed eye.

If eye irritation persists, consult a specialist.

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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.
Most important symptoms and effects, both acute and delayed	:	No symptoms known or expected. Irritating to eyes, respiratory system and skin.
Notes to physician	:	Treat symptomatically.

SECTION 5: Firefighting measures**Extinguishing media**

Suitable extinguishing media	:	Foam Carbon dioxide (CO ₂) Dry chemical Water mist Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	High volume water jet

Physicochemical hazards arising from the chemical

Specific hazards during firefighting	:	The product itself does not burn. Material can be slippery when wet.
Hazardous combustion products	:	No hazardous combustion products are known

Special protective equipment and precautions for fire-fighters

Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.
Specific extinguishing methods	:	Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Avoid breathing dust. Avoid dust formation. Keep people away from and upwind of spill/leak. Material can create slippery conditions. Only qualified personnel equipped with suitable protective equipment may intervene.
Environmental precautions	:	Prevent further leakage or spillage if safe to do so. Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	:	Pick up and arrange disposal without creating dust. Use approved industrial vacuum cleaner for removal. High efficiency particulate air filter (HEPA filter)

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Clean-up methods - large spillage
Knock down dust with water spray jet.
Shovel into suitable container for disposal.
After cleaning, flush away traces with water.
Clean-up methods - small spillage
Sweep up or vacuum up spillage and collect in suitable container for disposal.

Pick up and arrange disposal without creating dust.
Sweep up and shovel.
Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage**Handling****Precautions for safe handling**

Advice on protection against fire and explosion : Avoid dust formation.

Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling : Operate if possible out of doors or in a well-ventilated place.
Do not breathe vapours/dust.
Avoid contact with skin and eyes.
Avoid prolonged or repeated contact with skin.
In case of insufficient ventilation, wear suitable respiratory equipment.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.

Storage**Conditions for safe storage, including any incompatibilities**

Conditions for safe storage : Avoid dust formation.
Keep container tightly closed.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : No materials to be especially mentioned.

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

SECTION 8: Exposure controls and personal protection**Control parameters**

Contains no substances with occupational exposure limit values.

Appropriate engineering controls : Ensure adequate ventilation.
Maintain air concentrations below occupational exposure standards.
Dust must be extracted directly at the point of origin.

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Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection	:	Safety glasses Wear safety glasses with side shields or goggles. If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.
Skin protection	:	Work uniform or laboratory coat. Protective suit
Hand protection	:	
Remarks	:	Use protective skin cream before handling the product. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Wear suitable gloves.
Respiratory protection	:	In the case of dust or aerosol formation use respirator with an approved filter.
Hygiene measures	:	General industrial hygiene practice.

SECTION 9: Physical and chemical properties

Appearance	:	powder
Colour	:	white
Odour	:	odourless
Odour Threshold	:	Not applicable
pH	:	9.7 Concentration: 20 g/l (as a dispersion)
Melting point/ range	:	Not applicable
Boiling point/boiling range	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Will not burn
Self-ignition	:	Not applicable
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	2.53 (20 - 21 °C)

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Density	:	No data available
Bulk density	:	1,000 kg/m ³
Solubility(ies)	:	
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
Viscosity	:	
Viscosity, dynamic	:	Not applicable

SECTION 10: Stability and reactivity

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	:	Exposure to air or moisture over prolonged periods. No data available
Incompatible materials	:	Strong acids and oxidizing agents
Hazardous decomposition products	:	No decomposition if stored and applied as directed. No hazardous decomposition products are known.

SECTION 11: Toxicological information

Information on likely routes of exposure : None known.

Acute toxicity**Product:**

Acute oral toxicity	:	(Rat, female): > 2,000 mg/kg Method: OECD Test Guideline 420 GLP: yes (Rat, male and female): > 2,000 mg/kg Method: Directive 67/548/EEC, Annex V, B.1. GLP: no
Acute inhalation toxicity	:	LC ₅₀ (Rat, male and female): > 1660 mg/m ³ Exposure time: 4 h Test atmosphere: dust/mist GLP: yes LC ₀ (Rat, male and female): > 0.34 mg/l Exposure time: 6 h Test atmosphere: dust/mist

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Method: Directive 67/548/EEC, Annex V, B.2.
GLP: no

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
GLP: yes

Skin corrosion/irritation**Product:**

Species : Rabbit
Result : No skin irritation
GLP : yes

Species : EPISKIN human epidermis skin constructs
Result : No skin irritation
GLP : yes

Serious eye damage/eye irritation**Product:**

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

Respiratory or skin sensitisation**Product:**

Test Type : Mouse Local Lymph Node assay (LLNA)
Exposure routes : Dermal
Species : Mouse
Method : OECD Test Guideline 429
Result : Does not cause skin sensitisation.
GLP : yes

Assessment : No acute effects have been observed.
Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity**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
Result: negative
GLP: yes

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

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lymphoma)

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

GLP: yes

Genotoxicity in vivo : Remarks: No data available

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

Carcinogenicity**Product:**

Remarks : No data available

Reproductive toxicity**Product:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

STOT - single exposure**Product:**

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

STOT - repeated exposure**Product:**

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

Repeated dose toxicity**Product:**Repeated dose toxicity - Assessment : No acute effects have been observed.
No persistent or cumulative effects were observed.**Aspiration toxicity****Product:**

No data available

Further information**Product:**

Remarks : No data available

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SECTION 12: Ecological information**Ecotoxicity****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 aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 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

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Persistence and degradability**Product:**

Biodegradability : Remarks: No data available

Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: No data available

Mobility in soil

No data available

Other adverse effects**Product:**

Additional ecological information : No data available

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SECTION 13: Disposal information**Disposal methods**

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

SECTION 14: Transport information**International Regulations****UNRTDG**

UN number : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable

IATA-DGR

UN/ID No. : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable
Packing instruction (cargo aircraft) : Not applicable
Packing instruction (passenger aircraft) : Not applicable

IMDG-Code

UN number : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable
EmS Code : Not applicable
Marine pollutant : Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Special precautions for user

Not applicable

SECTION 15: Regulatory information**Safety, health, and environmental regulations specific for the hazardous chemical**

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013.

Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.

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SECTION 16: Other information

Date format : dd.mm.yyyy

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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 Organisation 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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.

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