

LB MINERALS, s.r.o.

Material Safety Data Sheet in compliance with Regulation (EC) 1907/2006 and Regulation (EC) 1272/2008

Version 09.0 S

Revision date September 2021

SECTION 1: Identification of the Substance / Mixture and the Company / Undertaking

1.1 Product identifier

Kaolin (slurry)

REACH Registration number: Exempted in accordance with Annex V.7 of Regulation (EC) 1907/2006

Trade names: KKN, SP86F, UK1, SP KKN, SPEXF

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

Kaolin has a variety of uses and is used notably in the manufacture of:

- Ceramics (sanitary ware, floor tiles, wall tiles, roof tiles, tiles; porcelain, tableware, refractories, etc.)
- Paper and board
- Fibreglass
- Paint
- Plastic & Rubber
- Adhesives and Sealant
- Building material & Cement
- Animal nutrition
- Fertilisers & Agricultural products
- Cosmetics & Pharmaceuticals
- Mixing and combination with compoundable substances or minerals
- Adhesives production

1.2.1 *Relevant identified uses*

Industrial, professional, and private use

1.2.2 *Uses advised against*

No use identified in Section 1.2 is advised against

1.3 Details of the supplier of the safety data sheet

Name:	LB MINERALS, s.r.o. www.lb-minerals.cz
Address:	Tovární 431, CZ 330 12 Horní Bříza
Phone No:	+420 378 071 111
Identification number (CRN)/VAT Reg No:	27994929/CZ27994929
E-mail of competent person responsible for SDS in the MS or in the EU:	msds@lb-minerals.cz

1.4 Emergency telephone number:

Emergency telephone number abroad	112
Emergency telephone number	National Health Service (NHS) 111

Available outside office hours Yes No

SECTION 2: Hazards Identification

2.1 Classification of the substance

Classification according to Regulation (EC) No 1272/2008:

Not classified as hazardous

2.2 Label elements

None

2.3 Other hazards

The substance does not meet the criteria for PBT or vPvB substance in accordance with Regulation (EC) No 1907/2006 Annex XIII (REACH).

SECTION 3: Composition / Information on Ingredients

3.2 Mixtures

Identification No.	Name of substance	Amount (% w/w)
CAS number: 1332-58-7 EC number: 310-194-1	Kaolin	60 - 63
CAS number: 7732-18-5	Water	37 - 40
CAS number: 9003-04-7	Sodium polyacrylate	0.055
CAS number: 1310-73-2 ES number: 215-185-5	Sodium hydroxide	0.025
	biocide	0.1

Kaolin is a UVCB substance sub-type 4. The purity of the product is 100 % w/w.
This product contains less than 1% w/w of quartz-fine fraction (RCS) which is self-classified as STOT RE1.

SECTION 4: First aid measures

4.1 Description of first aid measures

Pay attention to your own safety. No special personal protective equipment is recommended for first aid personnel.

Following inhalation

It is recommended to move the affected persons from the area to fresh air. If the problem persists, seek a medical advice.

Following skin contact

Wash the skin with water and soap and use protective ointment.

Following eye contact

Rinse with a large amount of water and seek medical attention if irritation persists.

Following ingestion

Rinse mouth with a large amount of water. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

The acute symptoms would give pain in the eyes because of dust entry. No delayed effects are anticipated if first aid treatment is applied and is effective.

4.3 Indication of any immediate medical attention and special treatment needed

No need for immediate medical attention; follow the advises given in section 4.1

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Adapt the fire extinguishing agent to the fire surroundings.

5.2 Special hazards arising from the substance or mixture

The material is non-flammable and it does not lead to hazardous thermal decomposition products.

5.3 Advice for fire-fighters

Avoid generation of dust after drying. Use breathing apparatus.

Product on floor when wetted will become slippery and may present a hazard; wear anti-slip boots.

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
Avoid the formation of airborne dust, wear personal protective equipment in accordance with local legislation, and see EN 143.
- 6.2 Environmental precautions
Prevent the spread of leaked material. Remove leaked material with suction systems.
- 6.3 Methods and material for containment and cleaning up
Avoid dust formation after drying; avoid dry sweeping. Use vacuum suction unit, or shovel into bags. Wear personal protective equipment in accordance with the local regulations.
- 6.4 Reference to other sections
See sections 8 and 13 of this safety data sheet.

SECTION 7: Handling and Storage

- 7.1 Precautions for safe handling
- 7.1.1 Protective measures*
Avoid material spillage. Wear personal protective equipment in accordance with the local regulations. If you require advice on safe handling techniques, please contact your supplier or check the Good Practice Guide referred to in section 16.
- 7.1.2 Advice on general occupational hygiene*
No drink, eat and smoke at the workplace. Wash your hands and change contaminated clothing before entering dining room.
- 7.2 Conditions for safe storage, including any incompatibilities
Ensure permanent storage tank mixing. Protect stored material from frost. If the processing of the material is interrupted, either process the rest and sanitize the device, or perform a microbial test on a regular weekly basis and, if bacteria are present, carry out additional preservation of the material with a biocidal product.
- 7.3 Specific end Use(s)
If you require advice on specific uses, please contact your supplier.

SECTION 8: Exposure controls / Personal protection

- 8.1 Control parameters
Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust, respirable crystalline silica dust).
The occupational exposure limit values (OEL) in the Czech Republic are set by Government Decree No. 361/2007 Coll. on the requirements for health protection at work (measured as an 8-hour time-weighted average):

Name of substance /component	Type	Value (mg*m ⁻³)
other quartzes (with the exception of asbestos)	OEL _r [*] / OEL _t <i>* SiO₂ contents in respirable fraction ≤ 5% (valid in the CZ)</i>	2 / 10
	OEL _r ^{**} / OEL _t <i>** SiO₂ contents in respirable fractions > 5% (valid in the CZ)</i>	10 : F _r / 10

F_r – fibrogenetic component contents in respirable fractions %
The permissible exposure limit of the respirable fraction can be specified by the national legislation of the EU Member State.

- 8.2 Exposure controls
- 8.2.1. Appropriate engineering controls*
Minimise airborne dust generation. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organisational measures, e.g. by isolating personnel from dusty areas. Remove and wash soiled clothing.

8.2.2. Individual protection measures, such as personal protective equipment

Eye/face protection

Do not wear contact lenses. For powders, tight fitting goggles with side shields, or wide vision full goggles. It is also advisable to have individual pocket eyewash.

Skin / hands protection

For skin, normal work clothes are appropriate. After finishing work, wash the skin with soap and water, or use a greasy cream - the products may dry the skin.

Respiratory protection

In case of prolonged exposure to airborne dust concentrations, wear respiratory protective equipment with the requirements of national legislation is recommended.

Thermal hazards

The substance does not represent a thermal hazard, thus special consideration is not required.

8.2.3 Environment exposure controls

Avoid releasing to the environment. Prevent the spread of spilled material.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	fluid
Colour:	white, beige, beige-grey
Odour:	odourless
Melting point/freezing point:	> 450 °C (study result, EU A.1 method)
Boiling point or initial boiling point and boiling range:	does not apply to solids
Flammability:	non-flammable mixture
Lower and upper explosion limit:	non-flammable mixture
Flash point:	non-flammable mixture
Auto ignition temperature:	non-flammable mixture
Decomposition temperature:	not applicable to suspensions
pH (150 g/l water at 20°C):	9 - 11
Kinematic viscosity:	not applicable to suspensions
Solubility:	< 1 mg/L at 20°C (study results, EU A.6 method)
Partition coefficient: n-octanol/water:	not applicable to mixtures
Vapour pressure:	non-volatile mixture
Density and/or relative density:	1.55 – 1.70 g/cm ³
Relative vapour density:	not applicable to suspensions
Particle characteristics:	suspension of solids in water particle size below 20 µm

9.2 Other information

None.

SECTION 10: Stability and Reactivity

10.1	Reactivity	Inert, not reactive
10.2	Chemical stability	Kaolin is chemically stable
10.3	Possibility of hazardous reactions	No hazardous reactions
10.4	Conditions to avoid	Do not spill it, the mixture is slippery.
10.5	Incompatible materials	None
10.6	Hazardous decomposition products	None

SECTION 11: Toxicological information

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

Hazard classes:	Outcome of the effect assessments:
Acute toxicity	Oral LD ₅₀ > 2000 mg/kg (OECD 420, rat) Dermal LD ₅₀ > 2000 mg/kg (OECD 402, rat) Inhalation LC ₅₀ (4h) > 5,07 mg/l air (OECD 436, rat)
Skin corrosion / irritation	Kaolin is not irritating to skin (OECD 404, rabbit).
Serious eye damage / irritation	Kaolin is not irritating to eye (OECD 405, rabbit). Kaolin is regarded as a mild irritant to eyes (according to the modified Kay & Calandra criteria).
Respiratory or skin sensitisation	Kaolin is not a skin irritant in accordance with the local lymph node test (OECD 429, mouse)
Germ cell mutagenicity	Kaolin is not genotoxic (OECD 471, OECD 490)
Carcinogenicity	In studies where kaolin has been administered via intratracheal installation, kaolin behaves as a poorly soluble particulate of low toxicity with inflammatory responses of lung tissue. Epidemiological studies covering a large number of workers did not reveal an explicit association between kaolin exposure and tumour formation. In summary, no concern on carcinogenicity is triggered by animal studies or by epidemiological findings
Reproductive toxicity	Based on the available data, the classification criteria are not met.
STOT - single exposure	No organ toxicity was observed in acute tests.
STOT - repeated exposure	Based on the results from animal studies (mainly via intratracheal administration) it seems that the severity of effects seen in the lungs may be related to the level of crystalline silica (fine fraction) present in the material as an accessory mineral. Epidemiological studies show that exposure to high levels of kaolin dust may lead to pneumoconiosis. Results indicate that the effects from kaolin exposure are typical of those seen with poorly soluble particles under conditions of lung overload i.e. the lungs clearance capacity has been exceeded. It is likely that the severity of any effects are related to the level of crystalline silica (fine fraction) present in the material as an accessory mineral
Aspiration hazard	Based on the available data, the classification criteria are not met.

11.2 Information on other hazards

None.

SECTION 12: Ecological information

12.1 Toxicity

12.1.1 Acute/Prolonged toxicity to fish	LC ₅₀ (96h) for freshwater fish (rainbow trout <i>Oncorhynchus mykiss</i>): >1000 mg/L (Method OECD 203)
12.1.2 Acute/Prolonged toxicity to aquatic invertebrates	EC ₅₀ (48h) for aquatic invertebrates (<i>Daphnia magna</i>): >1000 mg/L (Method OECD 202)
12.1.3 Acute/Prolonged toxicity to aquatic plants	EC ₅₀ (72h) for freshwater algae (<i>Raphidocelis subcapitata</i>): > 1000 mg/L (Method OECD 201)
12.1.4 Toxicity to micro-organisms e.g. bacteria	No data available
12.1.5 Chronic toxicity to aquatic organisms	No data available
12.1.6 Toxicity to soil dwelling organisms	No data available
12.1.7 Toxicity to terrestrial plants	No data available
12.1.8 General effect	No specific adverse effects known.
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	Negligible
12.5 Results of PBT and vPvB assessment	This substance does not meet the criteria for classification as PBT or vPvB.
12.6 Disrupting properties of the endocrine system	Not listed
12.7 Other adverse effects	No other adverse effects are identified.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Kaolin may be reused if it is not contaminated or otherwise degraded. Waste disposal methods are not applicable here.

It must not be disposed of in the sewage system or surface water.

In case of product contamination, dispose of in accordance with waste legislation.

Waste legislation – Decree 2000/532/EC establishing a list of wastes, as amended.

SECTION 14: Transport information

14.1	UN number	Not relevant
14.2	UN proper shipping name	Not relevant
14.3	Transport hazard class (es)	ADR: Not classified IMDG: Not classified ICAO/IATA: Not classified RID: Not classified
14.4	Packaging group	Not applicable
14.5	Environmental hazards	Not relevant
14.6	Special precautions for users	Avoid any spills during transportation by using closed containers or tanks.
14.7	Maritime transport in bulk according to IMO instruments	Not regulated.

SECTION 15: Regulatory information

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture
Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals, establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Regulation Council Regulation (EEC) No. 793/93, Commission Regulation (EC) No. 1488/94, Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC, and 2000/21/EC, as amended.

Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No. 1907/2006, as amended.

15.2 Chemical safety assessment

Was not completed.

SECTION 16: Other information

16.1 Indication of the changes made to the previous version of the MSDS

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Version 07.2 S - Slurry

Version 07.3 S – Section 3.1; Section 9.1

Version 07.4 S – Section 1.3

Version 07.5 S – Section 1.2

Version 07.6 S – Section 2.1

Version 07.7 S – Section 3

Version 07.8 S - In full accordance with Regulation (EC) 830/2015

Version 08.0 S – Section 1.3; Section 3.1 and logo change

Version 08.1 S – Section 5.3, 6.1, 6.3, 7.1, 7.2, 11.1, 14.6, and 15.2

Version 09.0 S – Sections 1.1; 3.2; 9.1; 15.1; 16.3; and 16.7; most of the 16 sections were updated in accordance with revised Annex II to the REACH regulation

Reasons to change the version of the safety data sheet:

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH).

16.2 Abbreviations and acronyms

EC ₅₀	median effect concentration
LC ₅₀	median lethal concentration
LD ₅₀	median lethal dose
OEL	occupational exposure limit
OEL _c	occupational exposure limit for total concentration
OEL _r	occupational exposure limit for respirable dust fraction
PBT	persistent bioaccumulative toxic
REACH	Regulation (ES) 1907/2006
RCS	respirable crystalline silica
STOT RE	specific target organ toxicity – repeated
vPvB	very persistent/very bioaccumulative
UVCB	substances of unknown or variable composition

16.3 Relevant H-phrases (number and full text)

EUH066: Repeated exposure may cause skin dryness or cracking.

EUH210: Safety data sheet available on request.

EUH211: Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

EUH212: Caution! Hazardous respirable dust may form during use. Do not inhale dust.

16.4 Third party material

Insofar as materials not manufactured or supplied by LB MINERALS, GmbH are used in conjunction with, or instead of LB MINERALS, GmbH materials, it is the responsibility of the customer himself to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of LB MINERALS, GmbH's kaolin in conjunction with materials from another supplier.

16.5 Liability

Such information is to the best of LB MINERALS, GmbH's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

16.6 Training

Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

16.7 Further information

The permissible exposure limit for the total concentration (respirable fraction) of dust (particle size 1–100 µm) is called PEL_c, for the respirable dust fraction PEL_r. The inhalable dust fraction is an aggregate of particles of airborne dust, which can be inhaled through the nose or mouth. Respirable fraction means the mass fraction of inhaled particles (size less than 5 µm) that penetrate the part of the airways where there is no ciliated epithelium and into the alveoli according to EN 1540 Occupational exposure - Terminology.

Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans (human carcinogen category 1). However, it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.). In 2009, in the Monographs 100 series, IARC confirmed its classification of Silica Dust, Crystalline, in the form of Quartz and Cristobalite (IARC Monographs, Volume 100C, 2012).

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in

employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003). So there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting the existing regulatory occupational exposure limits and implementing additional risk management measures where required (see section 16 below).

A multi-sectoral social dialogue agreement on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it was signed on 25 April 2006. This autonomous agreement, which received the European Commission's financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25 October 2006. The Agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the Agreement and its annexes, including the Good Practices Guide, are available from <http://www.nepsi.eu> and provide useful information and guidance for the handling of products that may generate respirable dust of crystalline silica. Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers.

Disclaimer

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.

End of the Material safety data sheet