

**LB MINERALS, s.r.o.**

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

Version **04.0**

Revision date **September 2023**

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

**1.1. Product identifier**

**Micro-ground silica**

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

Trade names: **VL17\*** (Note: \* Indicates any additional text specifying the individual product characteristics)

Other identification means: silica/silicon dioxide

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

Primary applications:

- Ceramics (sanitary ceramics, ceramic tiles, roofing tiles, utility ceramics, porcelain, refractory products, glazes, engobes, frits, etc.)
- Fibre-glass
- Paints
- Mixing and combining with compatible substances or minerals

**1.3. Details of the supplier of the safety data sheet**

Name: LB MINERALS, s.r.o. [www.lb-minerals.cz](http://www.lb-minerals.cz)  
 Address: Tovární 431, CZ 330 12 Horní Bříza  
 Phone N°: +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](mailto:msds@lb-minerals.cz)

**1.4. Emergency telephone number:**

European Emergency N°: 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:

The product contains respirable crystalline silica (RCS) above 10 wt%, classified as STOT RE 1.

Class code and hazard class:

Specific target organ toxicity — Repeated exposure (Category 1)	STOT RE 1
---	-----------


The full texts of all the classifications and hazard statements are given in section 16.

**Most serious adverse effects on human health and the environment**

Inhaling the respirable fraction of dust above the exposure limits may cause lung damage.

## 2.2. Label elements

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

<b>Hazard warning symbol:</b>	
<b>Signal word:</b>	<b>DANGER</b>
<b>Standard hazard statements:</b>	<b>H372:</b> Causes lung damage through prolonged or repeated exposure by inhalation.
<b>Safe handling instructions:</b>	<b>P260:</b> Do not inhale dust. <b>P264:</b> Wash your face and hands thoroughly after product handling <b>P270:</b> When using this product, do not eat, drink or smoke. <b>P314:</b> If you feel unwell, seek medical advice/treatment. <b>P501:</b> Collection of contents / packaging per local regulations.

## 2.3. Other hazards

The substance does not meet the criteria for PBT or vPvB substance in accordance with Annex XIII of regulation (EC) No 1907/2006 (REACH). The substance is not considered to be an endocrine disruptor for human health or the environment in accordance with Annex I of Regulation (EC) No. 1272/2008 (CLP).

## SECTION 3: Composition / Information on Ingredients

### 3.1. Substances

Identification No.	Name of substance
CAS number: 14808-60-7 EC number: 238-878-4	Silica (SiO <sub>2</sub> )

This product contains > 10 wt% of respirable silica (RCS), which is classified as STOT RE 1.

## 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

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 not flammable, and it does not lead to hazardous thermal decomposition products.

**5.3. Advice for fire-fighters**

No specific fire protection is required.

**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 spilled material. Remove spilled material with suction systems.

**6.3. Methods and material for containment and cleaning up**

Avoid dust formation; avoid dry sweeping. Use water spray cleaning systems or extractors to prevent airborne dust formation. 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. Recommendations*

Keep dust levels to a minimum. Minimize dust generation.

Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable respiratory protective equipment. Handle the packaged products carefully to avoid unintentional packaging damage. 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*

Not 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**

Minimize airborne dust generation. Keep shipping containers closed and prevent wind blowing during loading and unloading. Store in a dry place protected from moisture.

If the product is stored in a dry covered place, it can be stored indefinitely.

Pallets cannot be stacked.

**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 <sup>-3</sup> )
other quartzes (with the exception of asbestos)	<b>OEL<sub>r</sub>*/OEL<sub>t</sub></b> * Fibrogenic component content in the respirable fraction 100%	0.1 / -

	<b>OEL<sub>r</sub>** / OEL<sub>t</sub></b> ** SiO <sub>2</sub> contents in respirable fraction ≤ 5% (valid in the CZ)	2 / 10
	<b>OEL<sub>r</sub>*** / OEL<sub>t</sub></b> *** SiO <sub>2</sub> contents in respirable fractions > 5% (valid in the CZ)	10 : F <sub>r</sub> / 10

F<sub>r</sub> – fibrogenic component contents in respirable fractions %  
Dust that contains more than 1% of a fibrogenic component and shows a distinct fibrogenic response in lung tissue in an animal experiment is considered fibrogenic.

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

Minimize airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. Avoid dry sweeping.

### 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

None

### 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:	solid
Colour:	Beige-grey
Odour:	odourless
Melting point/freezing point:	1710 °C
Boiling point or initial boiling point and boiling range:	does not apply to solids
Flammability:	non-flammable
Lower and upper explosion limit:	does not apply to solids
Flash point:	does not apply to solids
Auto ignition temperature:	does not apply to solids
Decomposition temperature:	does not apply to solids
pH (400 g/L at 25°C)	5 - 8
Kinematic viscosity:	does not apply to solids
Solubility:	negligible
Solubility in fluoric acid:	yes
Partition coefficient: n-octanol/water:	does not apply to solids
Vapour pressure:	does not apply to solids
Density and/or relative density:	2 650 kg/m <sup>3</sup>
Relative vapour density:	does not apply to solids
Particle characteristics:	Milled material, max 15 wt% over 0.063 mm, does not contain a nanofom as defined in Annex VI of Regulation REACH

**9.2. Other information**

Bulk density :	900 – 1 100 kg/m <sup>3</sup>
----------------	-------------------------------

**SECTION 10: Stability and Reactivity**

<b>10.1. Reactivity</b>	Inert, not reactive
<b>10.2. Chemical stability</b>	Feldspar is chemically stable
<b>10.3. Possibility of hazardous reactions</b>	No hazardous reactions
<b>10.4. Conditions to avoid</b>	None
<b>10.5. Incompatible materials</b>	None
<b>10.6. Hazardous decomposition products</b>	None

**SECTION 11: Toxicological information**

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

<b>Hazard classes:</b>	<b>Outcome of the effect assessments:</b>
Acute toxicity	Based on the available data, the classification criteria are not met.
Skin corrosion / irritation	Based on the available data, the classification criteria are not met.
Serious eye damage / irritation	Based on the available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on the available data, the classification criteria are not met.
Germ cell mutagenicity	Based on the available data, the classification criteria are not met.
Carcinogenicity	Based on the available data, the classification criteria are not met.
Reproductive toxicity	Based on the available data, the classification criteria are not met.
STOT - single exposure	Based on the available data, the classification criteria are not met.
STOT - repeated exposure	STOT RE 1
Aspiration hazard	Based on the available data, the classification criteria are not met.

**11.2. Information on other hazards**

*11.2.1. Endocrine disrupting properties*

No data available

*11.2.2. Other information*

No data available

**SECTION 12: Ecological information**

<b>12.1. Toxicity</b>	No data available
<b>12.2. Persistence and degradability</b>	No data available
<b>12.3. Bioaccumulative potential</b>	No data available
<b>12.4. Mobility in soil</b>	Negligible
<b>12.5. Results of PBT and vPvB assessment</b>	Not relevant
<b>12.6. Endocrine disrupting properties</b>	No data available
<b>12.7. Other adverse effects</b>	No specific adverse reactions are known. However, this does not eliminate the possibility that large and frequent material leaks may have harmful or destructive effects on the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

The material may be re-used, taking into account the shelf life and the requirement to prevent dust formation. It must not be disposed of in the sewage system or surface water.

#### **Product treatment-** unused residues or spilled material

Collect any dry unused residue or spilled dry material. The material can be reused taking into consideration its shelf life and the requirement to prevent dustiness. In case of product contamination, clean it in accordance with the waste legislation.

#### **Packaging treatment** - completely empty, remove in accordance with the applicable legislation.

Prevent its penetration into the wastewater system.

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

## SECTION 14: Transport information

<b>14.1. UN number or ID number</b>	Not relevant
<b>14.2. UN proper shipping name</b>	Not relevant
<b>14.3. Transport hazard class (es)</b>	ADR: Not classified IMDG: Not classified ICAO/IATA: Not classified RID: Not classified
<b>14.4. Packaging group</b>	Not relevant
<b>14.5. Environmental hazards</b>	Not relevant
<b>14.6. Special precautions for users</b>	Avoid dust formation. Transport in normal covered vehicles protected from the elements. Additional safety measures according to Sections 6 and 8.
<b>14.7. Maritime transport in bulk according to IMO instruments</b>	Not relevant

## 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

Has not been done.

## SECTION 16: Other information

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

Version 01.0 - Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Version 02.0 - In full accordance with Regulation (EC) 830/2015

Version 03.0 – Change of 1.1, 2.1, 9.1, 9.2, 15.1, 16.3, and 16.7, most of the 16 sections were updated in accordance with revised Annex II of the REACH Decree

Version 04.0 – 2.3., 7.1.1., 9.1., 11.2., 12.6., 14.1., 15.2.

**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, Authorization, and Restriction of Chemicals (REACH).

**16. 2. Abbreviations and acronyms**

OEL	Occupational exposure limit
OEL <sub>c</sub>	Occupational exposure limit for total concentration
OEL <sub>r</sub>	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.

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 materials 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<sub>c</sub>, for the respirable dust fraction PEL<sub>r</sub>. 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**