

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

Safety Data Sheet in compliance with Regulation (EC) 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

Name of the product: *Feldspar*

Version **07.2**

Revision date: *April 2016*

SECTION 1. Identification of the Substance / Mixture and the Company / Undertaking**1.1. Product identifier*****Feldspar***

REACH Registration number: Exempted according to Annex V.7.

Trade names: **GROUND and CRUSHED FELDSPARS:**

POTASSIUM FELDSPARS – Ž75K20, Ž75K20 STABIL, Ž75K13, Ž75K13 STABIL, Ž65K20, Ž65K20 STABIL, Ž65K50, Ž50K20, Ž50K13, Ž50K40 and others

SODIUM-POTASSIUM FELDSPARS - Ž55NaK60, Ž55NaK85, Ž43KNa50 and others

SODIUM-CALCIUM FELDSPARS - Ž55NaCa60, Ž80NaCa40 and others

FELDSPATHIC-SILICIOUS FILLER: Casial, CASIAL, SILCAL and others

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

The substance is used in the manufacture of:

- Ceramics (sanity ceramics, China, electrical porcelain, sintered tiles, tiles, frits, glazes, enamels, utility ceramics, e.t.c.)
- Glass (utility and flat e.t.c.)
- Mixing and combination with compoundable substances or minerals

1.3. Details of the supplier of the safety data sheet

Company Name LB MINERALS, s.r.o. www.lb-minerals.cz

Address Tovární 431, CZ 330 12 Horní Bříza

Phone N° +420 378 071 111

Fax N° +420 377 956 332

E-mail of responsible person for SDS in EU: msds@cz.lasselsberger.com

E-mail of company minerals@cz.lasselsberger.com

1.4. Emergency telephone number

Emergency telephone number:

Toxicology Information Centre (TIS) +420 224 919 293 (non-stop)

Na Bojišti 1, 128 08 Prague 2, ČR +420 224 915 402 (non-stop)

E-mail: tis@mbox.cesnet.cz

Available outside office hours? Yes No

SECTION 2. Hazards Identification**2.1. Classification of the substance or mixture**

This product does not meet the criteria for classification as hazardous as defined in the Regulation EC 1272/2008.



Depending on the type of handling and use (e.g. crushing, grinding, drying), airborne respirable crystalline silica (quartz - cristobalite) may be generated. Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable crystalline silica dust should be monitored and controlled. This product should be handled with care to avoid dust generation.

REGULATION EC 1272/2008:

No classification

This product contains less than 1% quartz (respirable)

2.2. Label elements

None

2.3. Other hazards

This product is an organic substance and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

SECTION 3. Composition / Information on Ingredients**3.1. Substance:**

Feldspar is a UVCB substance¹

3.2. Main constituent:

Name	CAS-No	EINECS No
Feldspar	68476-25-5	270-666-7

3.3. Constituent driving classification:

The product contains less than 1% of quartz (respirable) which is classified as STOT RE 1.

SECTION 4. First aid measures**4.1. Description of first aid measures****Eye contact**

Rinse with copious quantities of water and seek medical attention if irritation persists.

Ingestion

No first aid measure required.

Rinse mouth thoroughly. Get medical attention if any discomfort continues.

Inhalation

Movement of the exposed individual from the area to fresh air is recommended.

Skin contact

No special first aid measures necessary.

Wash skin with soap and water. Use suitable lotion to moisturise skin.

4.2. Most important symptoms and effects, both acute and delayed

No acute and delayed symptoms and effects are observed.

4.3. Indication of any immediate medical attention and special treatment needed

No specific actions are required.

SECTION 5. Fire-fighting measures**5.1. Extinguishing media**

No specific extinguishing media is needed.

¹ Substances of Unknown or Variable composition, Complex reaction products or Biological materials

**5.2. Special hazards arising from the substance or mixture**

Non combustible. No hazardous thermal decomposition.

5.3. Advice for fire-fighters

No specific fire-fighting protection is required.

SECTION 6. Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Avoid airborne dust generation, wear personal protective equipment in compliance with national legislation.

6.2 Environmental precautions

No special requirement

6.3 Methods and material for containment and cleaning up

Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation. Wear personal protective equipment in compliance with national legislation.

6.4. Reference to other sections

See sections 8 and 13.

SECTION 7. Handling and Storage**7.1. Precautions for safe handling**

Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable respiratory protective equipment. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier or check the Good Practice Guide referred to in section 16.

7.2. Conditions for safe storage, including any incompatibilities**TECHNICAL MEASURES/PRECAUTIONS**

Minimise airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting. Store in a dry covered area it may be stored for unlimited periods.

7.3. Specific end Use(s)

If you require advice on specific uses, please contact your supplier or check the Good Practice Guide referred to in section 16.

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). Exposure limit values for the operating environment (OEL) in the Czech Republic set (measured as 8-hour time-weighted average):

The OEL_r^* / OEL_t (other quartzes with the exception of asbestos) for respirable crystalline silica dust is
2, 0 / 10, 0 mg/m³

* SiO_2 contents in respirable fraction $\leq 5\%$ (valid in the CZ)

OEL_r^{**} / OEL_t (other quartzes with the exception of asbestos) 10, 0 : F_r / 10, 0 mg/ m³

** SiO_2 contents in respirable fractions $>5\%$ (valid in the CZ)

F_r – fibrogenetic component contents in respirable fractions %

The OEL (Occupational Exposure Limit) measured as an 8 hour TWA (Time Weighted Average).

For the equivalent limits in other countries, please consult a competent occupational hygienist or the local regulatory authority.



8.2. Exposure controls

8.2.1. OCCUPATIONAL EXPOSURE CONTROLS

Minimise airborne dust generation. Use process enclosures, local exhaust ventilation e.t.c. If user operations generate dust, use personal protective equipment.

8.2.2. INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT

a. Eye/face protection

Wear safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries.

Contact lenses should not be worn when working with this product.

b. Skin protection

No specific requirement. For hands, see below. Appropriate protection (e.g. protective clothing, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin.

Hand Protection: Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session.

c. Respiratory protection

In case of prolonged exposure to airborne dust concentrations, wear a respiratory protective equipment that complies with the requirements of European or national legislation.

8.2.3 ENVIRONMENT EXPOSURE CONTROLS

Avoid wind dispersal

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

a. Appearance	Solid (fine powder, small pieces, crushed)
b. Odour	Odourless
c. Odour threshold	Not relevant
d. pH (150 g/l water at 20°C)	Not established
e. Melting temperature/ freezing point	1100 – 1500°C
m. Relative density	2 500 - 2700 kg/m ³
n. Solubility in water	Negligible (<10 ⁻² g/L)
Solubility in hydrofluoric acid	Yes

9.2. Other information

Not applicable

SECTION 10. Stability and Reactivity

10.1. Reactivity

Inert, not reactive

10.2. Chemical stability

Chemically stable

10.3. Possibility of hazardous reactions

No hazardous reactions

10.4. Conditions to avoid

Not relevant

10.5. Incompatible materials

No particular incompatibility

**10.6. Hazardous decomposition products**

Not relevant

SECTION 11. Toxicological information**11.1 Information on toxicological effects****a. Acute toxicity**

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

b. Skin corrosion/ irritation

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

c. Serious eye damage/ irritation

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

d. Respiratory or skin sensitisation

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

e. Germ cell mutagenicity

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

f. Carcinogenicity

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

g. Reproductive toxicity

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

h. STOT – Single exposure

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

i. STOT – Repeated exposure

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

j. Aspiration hazard

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

SECTION 12. Ecological information**12.1. Toxicity**

Not relevant

12.2 Persistence and degradability

Not relevant

12.3 Bioaccumulative potential

Not relevant

12.4 Mobility in soil

Negligible

12.5 Results of PBT and vPvB assessment

Not relevant

12.6 Other adverse effects

No specific adverse effects known. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.



SECTION 13. Disposal considerations

13.1. Waste treatment methods

WASTE FROM RESIDUES / UNUSED PRODUCTS

Where possible, recycling is preferable to disposal. Can be disposed of in compliance with local regulations. This product can be disposed in approved landfill sites.

PACKAGING

Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in enclosed receptacles. Recycling and disposal of packaging should be carried out in compliance with local regulations. The re-use of packaging is not recommended. Recycling and disposal of packaging should be carried out by an authorised waste management company.

SECTION 14. Transport information

14.1. UN number

Not relevant

14.2. UN proper shipping name

Not relevant

14.3. Transport hazard class

ADR: Not classified

IMDG: Not classified

ICAO/IATA: Not classified

RID: Not classified

14.4. Packaging group

Not relevant

14.5. Environmental hazards

Not relevant

14.6. Special precautions for users

No special precautions

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

Not relevant

SECTION 15. Regulatory information

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

INTERNATIONAL LEGISLATION/ REQUIREMENTS

Regulation (EC) 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

15.2 Chemical safety assessment

Exempted from REACH Registration in accordance with Annex V. 7.

SECTION 16. Other information

Indication of the changes made to the previous version of the SDS

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

Version 07.1 - change 2.1

Version 07.2 - change 1.1, 1.3

Third party material

Insofar as materials not manufactured or supplied by LB MINERALS, s.r.o. are used in conjunction with, or instead of LB MINERALS, s.r.o. 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, s.r.o. 's in conjunction with materials from another supplier.

Liability

Such information is to the best of LB MINERALS, s.r.o. 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.

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.

Social Dialogue on Respirable Crystalline Silica

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 receives 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 containing respirable crystalline silica. Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers. 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. 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 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).