ALSE KİMYA MİNERAL SAN. VE TİC. LTD. ŞTİ.

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

Quartz

Version

3

Revision date:

APRIL 2014

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Quartz

REACH Registr. n°: Exempted in accordance with Annex V.7.

Synonyms: silica flour, silicon dioxide flour, quartz sand, quartzite

Trade Name: QUARTZ GR -0,5 + 0,2 mm

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

Main applications - non-exhaustive list:
Glass,
Paint,
Ceramics,
Glass fibre,
Adhesives,
Plastics, rubber sealants,
Sports and leisure,
Filler for textured coatings,
Manufacture of silicon, ferrosilicon pellets.

1.3 Details of the supplier of the safety data sheet

Company name: Alse Kimya Mineral San. Ve Tic. Ltd. Şti..

Address: 75. yıl mahallesi Emko Sanayi Sitesi C5 Blok No:2 Eskişehir/Turkey

Phone N°: + 90 222 228 12 14

Fax N°: + 90 222 228 12 16

E-mail of responsible person for SDS: **info@alsekimyamineral.com**

1.4 Emergency telephone number

Emergency telephone number : + 90 222 228 12 14

Available outside office hours?

No

2 SECTION 2: HAZARD 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 and in Directive 67/548/EEC.

Depending on the type of handling and use (e.g. 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.

Classification EU (67/548/EC) : No classification

Regulation EC 1272/2008: No classification

This product contains less than 1% quartz (fine fraction).

2.2 Label elements

No classification

2.3. Other hazards

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

3. SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Main constituent:

Name	CAS No	EINECS No
Quartz	14808-60-7	238-878-4

4. 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

Inhalation:

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

Ingestion: No first-aid measure required.

Skin contact: No special first aid measures necessary.

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

5. SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

No specific extinguishing media is needed.

5.2. Special hazards arising from the substance or mixture

Non combustible. No hazardous thermal decomposition.

5.3. Advice for firefighters

No specific fire-fighting protection is required.

6. 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 requirements.

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 for other sections

See sections 8 and 13.

7. SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1 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.

7.1.2 Do not to eat, drink and smoke in work areas; wash hands after use; remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures / Precautions

Minimize 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.

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.

8. 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 quartz, respirable cristoballite).

The OEL (Occupational Exposure Limit) for respirable crystalline silica dust is 5 mg/m³ in *Turkey*, if crystalline silica content is less than 5%, measured as an 8 hour TWA (Time Weighted Average). The OEL may be found by the equation of OEL =25 / (SiO_2 %), if % SiO_2 is more than 5 %. 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 *Appropriate engineering controls:*

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Minimize airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organizational 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:*

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(a) **Eye/face protection**

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

(b) **Skin protection**

No specific requirement. For hands, see below.

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 and national legislation.

8.2.3 *Environmental exposure controls:*

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Avoid wind dispersal.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance : solid, powder
Odour : odourless
Odour threshold : not relevant
Color : white
Melting point : > 1610 °C
Relative density : 2,6 g/cm³
Grain shape : angular

Solubility(ies):
Solubility in water; negligible
Solubility in hydrofluoric acid; yes

9.2. Other information
No other information

10. 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

11. 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

12. SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
not relevant

12.2. Persistence and degradability
not relevant

12.3. Bioaccumulative potential
not relevant (Some organisms accumulate $Si(OH)_4$)

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.

13. 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.

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 authorized waste management company.

14. SECTION 14: TRANSPORT INFORMATION

14.1. UN Number
Not relevant

14.2. UN proper shipping name
Not relevant

14.3. Transport hazard classes
ADR: Not classified
IMDG: Not classified
ICAO/IATA: Not classified
RID: Not classified

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not relevant

14.6. Special precautions for user

No special precautions

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not relevant

15. SECTION 15: REGULATORY INFORMATION

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

National legislation/requirements:

According to regulatory provisions for dust in Turkey, if respirable crystalline silica dust in air is lower than 5 %, exposure limit is 5 mg/m^3. If respirable crystalline silica dust in air is higher than 5 %, then exposure limit can be found with the equation of 25/ SiO_2%.

Water Hazard Classification (Germany)

NWG

International legislation/requirements:

Respect regulatory provisions for dust (total and respirable), and for respirable crystalline silica dust.

15.2. Chemical safety assessment

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

16. SECTION 16: OTHER INFORMATION

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

Safety data sheet was prepared in compliance with Regulation (EC) 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010. The terminology of respirable quartz has been changed as quartz (fine fraction).

Third party materials

Insofar as materials not manufactured or supplied by *Alse Kimya* are used in conjunction with, or instead of *Alse Kimya* 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 *Alse Kimya's quartz products* in conjunction with materials from another supplier.

Liability

Such information is to the best of *Alse Kimya'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.

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 silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable part crystalline silica.

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystallin inhaled from occupational sources can cause lung cancer in humans. However it pointed out all industrial circumstances, nor all crystalline silica types, were to be incriminated. *Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicat and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)*

In 2009, in the Monographs 100 series, UARC confirmed its classification of Silica Dust, Crysta the form of Quartz and Cristoballite (IARC Monographs, Volume 100C, 2012.)
In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluc the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "T sufficient information to conclude that the relative risk of lung cancer is increased in perso silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer *(SCOEL SUM Doc 94-final, June 2003).*

So there is a body of evidence supporting the fact that increased cancer risk would be lin people already suffering from silicosis. Worker protection against silicosis should be assu respecting the existing regulatory occupational exposure limits and implementing additio management measures where required (see section 16 below).

Health & Safety Executive (specific for UK): Detailed reviews of the scientific evidence on the health effects of crystalline silica have been published by HSE (Health and Safety Executive, UK) in the Hazard Assessment Documents EH75/4 (2002) and EH75/5 (2003). The HSE points out on its website that "Workers exposed to fine dust containing quartz are at risk of developing a chronic and possibly severely disabling lung disease known as "silicosis". In addition to silicosis, there is now evidence that heavy and prolonged workplace exposure to dust containing crystalline silica can lead to an increased risk of lung cancer. The evidence suggests that an increased risk of lung cancer is likely to occur only in those workers who have developed silicosis."