

Safety data sheet according to Regulation (EC) No 1907/2006

Trade name: Quartz test dust

Created on: 31.03.2014

Version: **834-5**

Replaces: 834-4

Revised on: 12.06.2024

Page: 1 / 7



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Substance name / trade name: **RB16-Quartz**
Test dust according to JIS Z8901 Class 1

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

Relevant identified uses: Test dust
Uses advised against: -

1.3 Details of the supplier of the safety data sheet

Manufacturer/ Supplier: KSL staubtechnik gmbh
Street/ P.O. Box: Westendstrasse 11
Nat.-Kenn./ Postcode/ City: DE - 89415 Lauingen
Telephone/ fax/ e-mail: +49 (0) 9072 / 95 00-0 / Fax: -50 / info@ksl-staubtechnik.de

1.4 Emergency number

+49 (0) 9072 / 95 00-0 (Availability: Mon-Thu 08:00-16:00, Fri 08:00-12:00)

SECTION 2: Potential hazards

2.1 Classification of the substance or mixture

This product is contaminated with respirable quartz and is therefore classified as STOT RE2 according to the criteria defined in Regulation (EC) No 1272/2008.

Depending on the handling and processing of the product, the formation of airborne respirable crystalline silica is possible. Prolonged and/or intensive inhalation of respirable crystalline silica may cause dust lung disease (silicosis). The main symptoms of silicosis are coughing and breathing problems/difficulty breathing. Appropriate protective and monitoring measures should be in place in the event of exposure to respirable crystalline silica. According to TRGS 906, activities involving respirable crystalline silica in the form of quartz and cristobalite have a carcinogenic effect on humans.

The product should be handled with special care to avoid dust formation.

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

Hazard class: STOT RE2
Hazard category: 2
Hazard statements: H373 May cause damage to the lungs through prolonged or repeated exposure if inhaled.
This product contains between 1 and 10% respirable quartz.

2.2 Labelling elements

2.2.1 Labelling elements according to Regulation (EC) No 1272/2008



GHS08

Signal word: Caution
Hazard statement: H373 May cause damage to the lungs through prolonged or repeated exposure if inhaled.
Precautionary statements: P260: Do not breathe dust
P284: Wear respiratory protection if ventilation is inadequate.
P501: Dispose of contents (residues)/container properly in accordance with local regulations. (avoid dust formation).

2.3 Other hazards

The product is an inorganic substance and does not meet the criteria for PBT and vPvB substances according to Annex XIII of REACH Regulation 1907/2006/EC.

SECTION 3: Composition/information on ingredients

3.1 Substances

Description of the substance: Quartz (SiO₂)
Hazardous components: This product contains between 1 and 10% respirable quartz

Name	CAS No.	EC no.	Concentration range [wt.%]	Classification according to Regulation (EC) No 1272/2008
Silicon dioxide SiO ₂	14808-60-7	238-878-4	>= 98%	- H373 - STOT RE2 - Category 2

Safety data sheet according to Regulation (EC) No 1907/2006

Trade name: Quartz test dust

Created on: 31.03.2014

Version: 834-5

Replaces: 834-4

Revised on: 12.06.2024

Page: 2 / 7



3.2 Mixtures

This product is a fabric.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

If symptoms persist, it is advisable to consult a doctor. Substance/product and measures taken Specify doctor.

After inhalation:

Provide fresh air. Dust from the throat and nose should be removed quickly. If symptoms such as discomfort, coughing or persistent irritation occur, consult a doctor. Inhalation should generally be avoided.

After skin contact:

Wash off with soap and water.

After eye contact:

If necessary, remove the contact lens and rinse the eye under running water with the eyelid open to remove all particles. If possible, use isotonic eye rinsing solution (0.9 % NaCl). Do not rub the eye dry, as additional corneal damage is possible due to the mechanical stress.

After ingestion:

Rinse mouth with plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Repeated inhalation of larger quantities over a longer period of time increases the risk of lung diseases (silicosis). The main symptoms of silicosis are coughing and breathing problems/difficulty breathing.

Dust may cause irritation to the eyes and respiratory tract (due to exposure to foreign bodies).

4.3 Information on immediate medical assistance or specialised treatment

No special measures are known.

SECTION 5: Fire-fighting measures

5.1 Extinguishing agent

Suitable:

Match the extinguishing agent to the work area/environment.

Unsuitable:

none

5.2 Special hazards arising from the substance or mixture

None. Non-flammable.

5.3 Instructions for firefighting

none

5.4 Additional notes

No measures are required as the substance is not flammable.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 Personnel not trained for emergencies

Avoid dust formation. Wear protective clothing as described in section 8. Follow the instructions for safe handling as described in section 7.

6.1.2 Emergency services

Emergency plans are not required. However, respiratory protection is required in case of high dust exposure.

6.2 Environmental protection measures

No special environmental protection measures required.

6.3 Methods and material for containment and cleaning

6.3.1 Instructions for retention

Avoid dust formation.

6.3.2 Instructions for cleaning

Avoid inhalation. Avoid dry sweeping. Use approved spray and suction systems for cleaning. Use protective equipment.

6.3.3 Information on unsuitable retention and cleaning methods

Blowing off for cleaning purposes is not permitted.

6.4 Reference to other sections

See also sections 8 and 13. Personal protective equipment is specified in section 8 of the safety data sheet.

Safety data sheet according to Regulation (EC) No 1907/2006

Trade name: Quartz test dust

Created on: 31.03.2014

Version: 834-5

Replaces: 834-4

Revised on: 12.06.2024

Page: 3 / 7



SECTION 7: Handling and storage

7.1 Protective measures for safe handling

7.1.1 Notes on safe handling

Avoid dust formation and deposits. Handle packaged products carefully to prevent the packaging from bursting. is avoided. Areas with dust formation must be equipped with suitable ventilation systems. If the workplace atmosphere is insufficiently dedusted, wear suitable respiratory protection (in accordance with EN 143). Gloves according to EN 374 are recommended.

Measures to protect against fire and explosions

No special measures required.

Measures to prevent aerosol and dust formation

Only sweep with a suitable sweeping brush. If possible, use suitable dry cleaning methods such as vacuum suction that do not generate dust.

Measures to protect the environment

No special measures required.

7.1.2 Notes on general hygiene measures

Do not eat, drink or smoke while working. Wash hands after use/contact. Wear a respirator and safety goggles in dusty atmospheres.

7.2 Conditions for safe storage taking into account incompatibilities

Information on the storage conditions

Store dry and tightly closed, if possible in the original container. Keep away from food and beverages.

Requirements for storage rooms and containers

No special measures are required.

Storage class

VCI: 10-13 (non-flammable solids)

7.3 Specific end uses

Industry and sector-specific guidelines

Use appropriately and sparingly with suitable test equipment depending on the intended use. No additional information is available for the specific end uses (see section 1.2).

Further information can be found, for example, in the guide to good practice on protecting workers' health through good handling and use of crystalline silica and products containing it (see section 16).

SECTION 8: Exposure controls / Personal protective equipment

8.1 Parameters to be monitored

Components with limit values that require monitoring at the workplace:

Chem. Identity	CAS No.	EC no.	National Limit value	Exposure type	DNEL/PNEC value	Remark/Legal regulation
More general Dust limit value	-	-	1.25 (A) mg/m ³ (alveolar)	inhalative		Occupational exposure limit TRGS 900
More general Dust limit value	-	-	10 (E) mg/m ³ (inhalable)	inhalative		Occupational exposure limit TRGS 900
Silicon dioxide SiO ₂	14808-60-7	238-878-4	*	inhalative	not available	List of carcinogenic activities or processes TRGS 906

* For activities or processes in which employees are exposed to respirable dusts of crystalline silica in the form of quartz, an assessment standard of 50µg/m³ currently exists in Germany.

The safety regulations, in particular the third and fourth sections of the Hazardous Substances Ordinance (GefStoffV), must be observed. The occupational exposure limits (OEL/Occupational Exposure Limit) for respirable crystalline silica valid for EU countries, Norway and Switzerland can be found at <https://www.nepsi.eu/>. Information on the limit values in other countries can be obtained from experts in occupational hygiene or the responsible regulatory authority in the respective country.

8.2 Exposure controls and monitoring

A combination of technical and individual protective measures is often required to comply with the occupational exposure limit values. Technical control equipment and individual protection measures are recommended for the identified uses (section 1.2). Technical measures and the selection of suitable procedures take precedence over the use of personal protective equipment.

8.2.1 Suitable technical control devices

Avoid or minimise dust formation. Use closed processes and local extraction equipment to keep the dust concentration below the permissible exposure limit. Use a ventilation system if there is a high proportion of dust in the air. If dust formation cannot be avoided, use ventilation to keep the dust content of the air below the exposure limit values. Apply organisational measures, e.g. by keeping people away from dusty areas.

Recommended measurement methods for workplace measurements: See publication series of the Employer's Liability Insurance Association.

Safety data sheet according to Regulation (EC) No 1907/2006

Trade name: Quartz test dust

Created on: 31.03.2014

Version: 834-5

Replaces: 834-4

Revised on: 12.06.2024

Page: 4 / 7



8.2.2 Individual protective measures, for example personal protective equipment

General

No personal protective equipment is required if the product is used as intended. Handle the product in accordance with the safety instructions.

Face/eye protection

If dust is generated, wear closed safety goggles in accordance with EN 166.

Skin/hand protection

People who suffer from dermatitis or have particularly sensitive skin should take suitable protective measures (e.g. wear gloves or use protective cream). Wash hands after finishing work. The use of gloves in accordance with EN 374 is advantageous.

Respiratory protection

Install effective extraction and/or ventilate sufficiently. If the permissible exposure limit values are exceeded at the workplace, wear a respirator that complies with EU or national regulations (e.g. particle filter P2 or P3 in accordance with EN 143).

Hygiene measures

Do not eat, drink or smoke at work. Wash hands before breaks and at the end of work and shower if necessary. Avoid contact with eyes and skin. After work, workers should wash or shower and use skin care products. Clean contaminated clothing, shoes, watches etc. before reuse.

8.2.3 Limitation and monitoring of environmental exposure

See also sections 6 and 7.

Air

Avoid drifting due to wind. Compliance with dust emission limits in accordance with the Technical Instructions on Air Quality Control.

Water

Waste water and groundwater regulations must be observed.

Floor

Compliance with the Federal Soil Protection Ordinance. No special control measures required.

SECTION 9: Physical and chemical properties

9.1 Information on the basic physical and chemical properties

(a)	Physical state	Powder - solid
(b)	Colour	whitish
(c)	Odour	odourless
(d)	Melting point	> 1610° C
(e)	Boiling point or initial boiling point and boiling range	not applicable
(f)	Flammability	not applicable
(g)	Lower and upper explosion limit	does not apply to solids according to Regulation (EU) 2020/878.
(h)	Flash point	does not apply to gases, aerosols and solids according to Regulation (EU) 2020/878.
(i)	Ignition temperature	only applies to gases and liquids according to Regulation (EU) 2020/878.
(j)	Decomposition temperature	not applicable
(k)	pH value	5 - 8 (400 g/l at 20° C)
(l)	Kinematic viscosity	only applies to liquids according to Regulation (EU) 2020/878.
(m)	Solubility	negligible
(n)	Partition coefficient n-octanol/water (log value)	not applicable
(o)	Vapour pressure	not applicable
(p)	Density and/or relative density	not applicable
(q)	Relative vapour density	only applies to gases and liquids according to Regulation (EU) 2020/878.
(r)	Particle properties	The X ₅₀ value is between 100µm and 250µm.

9.2 Other information

Not applicable

9.2.1 Information on physical hazard classes

Not applicable

9.2.2 Other safety-related parameters

Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions are known if stored and handled properly.

10.2 Chemical stability

The fabric is stable.

10.3 Possibility of hazardous reactions

None

10.4 Conditions to avoid

Moisture and water during storage can lead to lump formation and loss of product quality.

10.5 Incompatible materials

none

10.6 Hazardous decomposition products

none

Safety data sheet according to Regulation (EC) No 1907/2006

Trade name: Quartz test dust

Created on: 31.03.2014

Version: **834-5**

Replaces: 834-4

Revised on: 12.06.2024

Page: 5 / 7



SECTION 11: Toxicological information

11.1 Information on hazard classes according to Regulation (EC) No 1272/2008

- a) **Acute toxicity**
Based on available data, the classification criteria are not met.
- b) **Corrosive/irritant effect on the skin**
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) **Sensitisation of the respiratory tract/skin**
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) **Specific target organ toxicity at single exposure**
Based on available data, the classification criteria are not met.
- i) **Specific target organ toxicity with repeated exposure**
May cause silicosis, a dust lung disease, through repeated exposure.
- j) **Aspiration hazard**
No data available.

Delayed and immediate effects as well as chronic effects after short or long-term exposure

Immediate effects

Irritation in the eye or respiratory tract due to exposure to foreign bodies is possible

Chronic effects with prolonged exposure

This product is contaminated with between 1 and 10% respirable quartz and is therefore classified as STOT RE2 according to the criteria defined in Regulation (EC) No 1272/2008.

Prolonged and/or intense exposure to dust containing respirable crystalline silica can cause silicosis. This disease is a nodular pulmonary fibrosis caused by inhalation and deposition of mineral dust.

In 1997, the International Agency for Research on Cancer (IARC) came to the conclusion that occupational exposure to crystalline silica can cause lung cancer in humans. However, the IARC qualified that this does not apply to all forms of exposure or all types of crystalline silica. (IARC Monographs on the Evaluation of Carcinogenic Risks to Humans from Chemicals, Silicon Dioxide, Siliceous Dusts and Organic Fibres, 1997, Volume 68, IARC, Lyon, France).

In 2003, the EU Scientific Committee on Occupational Exposure Limits to Chemical Agents (SCOEL) concluded that the main effect of inhalation of respirable crystalline silica dust in humans is silicosis. "There is sufficient information to conclude that there is an increased relative risk of lung cancer for people suffering from silicosis. People working in quarries or in the ceramics industry who are exposed to silica dust but do not suffer from silicosis do not appear to be affected by this increased risk of lung cancer. It can therefore be assumed that the avoidance of silicosis also reduces the risk of cancer..." (SCOEL SUM Doc 1994-final, June 2003).

There are therefore numerous indications that an increased risk of lung cancer is limited to people who already suffer from silicosis. The protection of workers from silicosis should be ensured by complying with the occupational exposure limits set by the authorities and, if necessary, by implementing additional risk management measures (see section 16).

11.2 Information on other hazards

No endocrine disrupting properties or other adverse effects are known.

SECTION 12: Environmental information

No ecotoxicological data is available for the product. Quartz is a naturally occurring mineral and is found worldwide. Adverse effects on the environment can be excluded.

12.1 Toxicity

No data available, as no data is available from the raw material supplier.

12.2 Persistence and degradability

Quartz cannot be biodegraded.

12.3 Bioaccumulative potential

No data available, as no data is available from the raw material supplier.

12.4 Mobility in soil

No data available, as no data is available from the raw material supplier.

12.5 Results of PBT and vPvB assessment

No data available, as no data is available from the raw material supplier.

12.6 Endocrine disrupting properties

No data available, as no data is available from the raw material supplier.

12.7 Other adverse effects

No data available, as no data is available from the raw material supplier.

Safety data sheet according to Regulation (EC) No 1907/2006

Trade name: Quartz test dust

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Version: **834-5**

Replaces: 834-4

Revised on: 12.06.2024

Page: 6 / 7



SECTION 13: Notes on disposal

13.1 Waste treatment processes

Pick up product dry. Generally avoid dust formation.

Can be disposed of in accordance with local regulations. If necessary, coordinate disposal with the local authorities.

Recommendation

Agree the exact waste code with the waste disposal company.

Waste code according to the Waste Catalogue Ordinance (AVV)

010410 - dusty and powdery waste

Treatment of cleaned/uncleaned packaging

150106 - mixed packaging according to material recycling

The formation of dust as a result of residues in the packaging should be avoided. Contaminated packaging materials should be stored in closed containers. Recycling and disposal of packaging material must be carried out in accordance with local regulations and should be carried out by a certified waste disposal company. Do not reuse packaging material.

SECTION 14: Transport information

The product is not a dangerous good according to the transport regulations (ADR, RID, ADN, IMDG, ICAO/IATA).

14.1 UN number or ID number

Not applicable

14.2 Proper UN shipping name

Not applicable

14.3 Transport hazard classes

Not applicable

14.4 Packaging group

Not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions for the user

No special measures

14.7 Bulk transport by sea according to IMO instruments

Not applicable

SECTION 15: Legislation

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

The product does not fall under the registration obligation of EC Regulation 1907/2006 (REACH).

EU regulations

National regulations

When handling this product, the current version of the statutory regulations must be observed, including

AwsV Water hazard class: nwg - not hazardous to water

TRGS 500 "Protective measures"

TRGS 510 "Storage of hazardous substances in transportable containers"

TRGS 559 "Mineral dust"

TRGS 900 "Occupational exposure limits"

TRGS 906 "List of carcinogenic activities or processes according to §3 para. 2 no. 3 GefStoffV"

Technical Instructions on Air Quality Control

Ordinance on Occupational Health Care (ArbMedVV)

BG principles for occupational medical check-ups

MuSchG "Maternity Protection Act"

JuSchG "Youth Protection Act"

15.2 Chemical safety assessment

No chemical safety assessment is required for this substance.

Safety data sheet according to Regulation (EC) No 1907/2006

Trade name: Quartz test dust

Created on: 31.03.2014

Version: 834-5

Replaces: 834-4

Revised on: 12.06.2024

Page: 7 / 7



SECTION 16: Other information

16.1 Changes compared to the previous version

Header updated; Paragraph 1.1: updated; Paragraph 3.1: column "REACH" removed; Paragraph 6.4: reference inserted; Paragraph 8.1: updated; Paragraph 9.1: adapted according to Regulation (EU) 2020/878; Paragraph 9.2.1, 9.2.2: new inserted; Paragraph 11.1: heading and list adapted to Regulation (EU) 2020/878; Paragraph 11.2: new inserted; Paragraph 12: editorial changes; Paragraph 12.6: newly inserted; paragraph 14.1, 14.7: headings adapted to the aforementioned regulation; paragraph 15.1, 16.2: water hazard class renamed from "VwVws" to "AwSV" and reviewed; paragraph 15.2: editorial changes; paragraph 16.5: updated; paragraph 16.6: newly inserted; the last two pages (outdated excerpt from www.nepsi.eu) have been removed.

16.2 Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ArbMedVV	Ordinance on Occupational Health Care
AwSV	Ordinance on Installations for the Handling of Substances Hazardous to Water
BImSchV	Federal Immission Control Ordinance
BG	Employer's Liability Insurance Association
CAS	Chemical Abstracts Service
CLP	Classification, labelling and packaging (Regulation (EC) No 1272/2008)
GefStoffV	Hazardous Substances Ordinance
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
IMDG	International agreement on the Maritime transport of Dangerous Goods
PBT	Persistent, bio-accumulative and toxic (persistent, bio-accumulative, toxic)
REACH	Registration, Evaluation and Authorisation of Chemicals (Regulation (EC) 1907/2006)
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCOEL	Scientific Committee for Occupational Exposure Limits
MSDS	Safety Data Sheet
SIB	Safety Information Sheet
STOT	Specific Target Organ Toxicity
SWeRF	Size Weighted Relevant Fine Fraction
TRGS	Technical rules for hazardous substances
VCI	German Chemical Industry Association
vPvB	Very persistent, very bioaccumulative (very persistent, very bioaccumulative)

16.3 References and data sources

As sources of the most important data and technical information, we refer to information from the raw material suppliers/manufacturers or the ECHA database on the classification and labelling inventory.

16.4 Training for employees

In addition to training programmes for employees on health, safety and the environment, companies must ensure that their employees can read and understand the safety data sheet and implement the requirements.

Employees must be made aware of the presence of crystalline quartz and trained in the proper handling of the product.

16.5 Social dialogue on respirable crystalline silica

On 25 April 2006, a cross-industry agreement on the protection of workers' health through the good handling and use of crystalline silica and products containing it was signed. This autonomous agreement, which was financially supported by the European Commission, is based on a guide to good practice. The provisions laid down in the agreement entered 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, its annexes and the best practice guide are available at <http://www.nepsi.eu> and provide useful information and guidance on the handling of products containing respirable crystalline silica. Literature references are available from EUROSIL (European Association of Industrial Silica Manufacturers).

Occupational exposure limits can also be found at <http://www.nepsi.eu>.

16.6 Information about NANO

We do not use any nanotechnology processes and no synthetic nanomaterials are used in production. However, we cannot rule out the possibility that small quantities of nanoparticles may be present in the material. In order to obtain the desired particle size distribution in our product, the product is crushed and then sieved. It could be that some nanoparticles are produced in such a crushing process. The same also applies to products such as flour or sugar! It is therefore not possible to exclude NANO material.

16.7 Exclusion clause

The information in this safety data sheet describes the safety requirements of our product and is based on our current state of knowledge. It does not constitute a guarantee of product properties and does not establish a contractual legal relationship. This safety data sheet is intended solely as a source of information for the user. It has been compiled with the utmost care; no guarantee can be given for the correctness of the data or liability accepted for the consequences of printing, typesetting or transmission errors. Existing laws, ordinances and regulations, including those not mentioned in this data sheet, must be observed by the recipient of our products on their own responsibility.

The translation was carried out with the help of an online tool.