Material Safety Data Sheet

1. Product Identification

Material: Respirable crystalline silica (quartz) A9950

Producer: The Health and Safety Executive (HSE)
Harpur Hill
Buxton
Derbyshire
UK
SK17 9JN

00 44 (0)203 028 2000

Hours of operation: 9.00 – 17:00 UK local time

Contact: Peter Stacey peter.stacey@hse.gov.uk

2. Product Description, Composition and Use

Physical Form: Quartz standard material A9950

Composition: 100 % silicon dioxide, (SiO₂)
α – quartz (A9950) (89.3 % crystalline)

CAS Number: Quartz 14808-60-7

Identified use:
For the preparation of laboratory analysis, calibration and test samples

3. Hazard Identification

Classification

Quartz (SiO₂): Labelling according to Regulation (EC) No 1272/2008 [CLP]
Specific target organ toxicity – repeated exposure (Category 1)

**Signal word**
Danger

**Hazard statement(s):**
H373: May cause damage to lung through prolonged or repeated exposure by inhalation

**Precautionary statement(s)**
P260  Do not breath dust
P202  Do not handle until all safety precautions have been read and understood
P285:  In case of inadequate ventilation wear respiratory protection.
P501  Dispose of contents in accordance with local regulations

**Labelling according to European Directive 67/548/EEC as amended**

**R-phrase(s)**
R49  may cause cancer by inhalation
R23  toxic by inhalation

**S-phrase(s)**
S22  Do not breath dust

**4. Routes of Exposure and First Aid Measures**

**Inhalation:**
Remove victim to fresh air.

**Eyes:**
Rinse with water. Ensure to remove contact lens before rinsing.
Skin: Wash gently and thoroughly with water and non-abrasive soap.

Ingestion: Rinse mouth thoroughly with water.

5. Fire Fighting Measures

Suitable Fire Extinguishers: Not Applicable

Unsuitable Fire Extinguishers: Not Applicable

Hazardous Decomposition: Not Applicable

Special Procedures: Not Applicable

6. Accidental Release Measures

Exposure Controls: Wet swab spilled material; scrape up into sealable container and label. Recommended handling in ventilated cupboard with the extracted air filtered through high efficiency particulate filters (HEPA).

Personal Protection: For use in a laboratory setting only.

Disposal: The material should be handled and disposed of in accordance with guidelines for handling laboratory reagents in force at the site of end use or disposal.

7. Handling and Storage

The material should be used, handled and stored only in an analytical chemistry laboratory setting.
The material is a laboratory material and should be stored sealed in the supplied container when not in use.

The handler should consider a double containment in case of breakage and unintentional contamination.

8. Exposure Controls

Control Limits:

United Kingdom  

Reference time period
8-hour Time Weighted Average

Respirable limit values
Respirable Crystalline Silica 0.1 mg m$^{-3}$ WEL

United States of America  
NIOSH Recommended Exposure Limit (REL)
Quartz 0.05 mg m$^{-3}$

Biological Exposure Limits: Not Applicable

9. Physical and Chemical Properties

Appearance: White powder

Odour: None

pH: n/a.

Boiling Point: 2230 °C
Melting Point: 1650 °C

Flash Point: No data available.

Combustibility: Not combustible

Auto-Flammability: Non-flammable.

Explosive: None.

Oxidising Properties: Not applicable.

Vapour Pressure: Not applicable.

Relative Density: 2.5 g cm$^{-3}$

Solubility: No data available.

Partition Coefficient: Not applicable.

Miscibility: Not applicable.

Vapour Density: Not applicable.

Evaporation Loss: Not applicable.

Viscosity: Not applicable.

10. Stability and Reactivity

Stability: Stable.

Hazardous Polymerisation: Not applicable.

Hazardous Decomposition

Products: Cristobalite, if product is heated beyond 800 - 1000 °C
11. Toxicological Information

**Toxic Effects:**

α-quartz (crystalline silica)  
Silicosis  
Evidence for human carcinogenicity  
Current classification: Group 1 (IARC Monograph 100, 2012)

**Chronic Effects:**  
Long term respiratory exposure to airborne respirable crystalline silica may result in silicosis which is a disabling respiratory disease and decreased pulmonary function.

12. Ecological Information

**Mobility:**  
Not likely to be mobile.

**Persistence and Degradability:**  
Not likely to be biodegrade.

**Bio-accumulative Potential:**  
No data available.

**Aquatic Toxicity:**  
No data available

13. Disposal Considerations

The material should be handled and disposed of in accordance with guidelines for handling laboratory reagents in force at the site of end use or disposal.

14. Transport Information

**UN Number**

ADR/RID: Not classified  
IMDG: Not classified  
IATA: Not classified

**UN proper shipping name**

ADR/RID: Not dangerous goods  
IMDG: Not dangerous goods  
IATA: Not dangerous goods
Transport hazard class(es)
ADR/RID: No
IMDG: No
IATA: No

Packaging group
ADR/RID: Not applicable
IMDG: Not applicable
IATA: Not applicable

Environmental hazards
ADR/RID: No
IMDG: No.
IATA: No

15. Regulatory Information
This safety datasheet complies with the requirements of Regulation (EC) No 1907/2006

16. Other information
The above information is believed to be correct and based upon the present state of our knowledge and is applicable to this product with respect to appropriate safety precautions.

In no event shall HSE be liable for any damages (including, without limitation, lost profits, business interruption, or lost information) arising out of the use of or inability to use the filter samples, even if HSE has been advised of the possibility of such damages.