

Material Safety Data Sheet – v1.1 Jan 15

1. Product Identification

Material: Respirable crystalline silica (quartz) A9950

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

00 44 (0)1298 218000

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

Contact: Peter Stacey peter.stacey@hsl.gsi.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 **HSE EH40/2005 Workplace exposure limits (WEL) (2nd edition 2011)**

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 HSL 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 HSL has been advised of the possibility of such damages.