



UNITED STATES DEPARTMENT OF LABOR
OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION

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Chemical Sampling Information

Silica, Crystalline Cristobalite, Respirable Dust

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General Description

NAME: Silica, Crystalline Cristobalite, Respirable Dust

SYNONYM(s): Cristobalite prior to 9/1/89

IMIS: 9015

CAS: 14464-46-1

DESCRIPTION:

Solid.

Exposure Limits

OSHA GENERAL INDUSTRY PEL: see 1910.1000 (Table Z-3)

ACGIH TLV: 0.05 mg/m³ TWA; (Respirable fraction)

NIOSH REL: 0.05 mg/m³ TWA Potential Carcinogen

Health Factors

IARC: Silica - Group 2A, probably carcinogenic to humans (Crystalline + Silica)

HEALTH EFFECTS: Pneumoconiosis (HE10)

Monitoring

PRIMARY SAMPLING/ANALYTICAL METHOD (SLC1):

MEDIA: Tared Low Ash Polyvinyl Chloride (LAPVC) filter 5 microns preceded by 10 mm Nylon Cyclone

MAX V: 816 Liters **MAX F:** 1.7 L/min

ANL 1: X-ray Diffraction; XRD

REF: 2 (OSHA ID-142)

CLASS: Partially Validated

NOTE: Collect a sample of the bulk substance and send to the lab in a separate mailing container at the time the air samples are submitted. Indicate on the sample sheet that a bulk sample has been submitted. For SiO₂, a high volume area or settled dust sample is preferred. Any sample weight between 0.10 mg and 5.0 mg is acceptable (0.5 to 3.0 mg is preferred). If they are present in the work environment, the following major interferences should be noted: aluminum phosphate, feldspars (microcline orthoclase, plagioclase), graphite, iron carbide, lead sulphate, micas

(biotite, muscovite), montmorillonite, potash, sillimanite, silver chloride, talc and zircon (zirconium silicate). Quartz and cristobalite may be submitted on the same filter; otherwise, submit as a separate filter.

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