

Common Name: **SILICA, QUARTZ**

Synonyms: Silica, Crystalline; Crystallized Silicon Dioxide

CAS No: 14808-60-7

Molecular Formula: SiO₂

RTK Substance No: 1660

Description: Odorless, colorless, white or reddish crystalline solid

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
4 - Health 0 - Fire 0 - Reactivity DOT#: None ERG Guide #: None Hazard Class: None	Extinguish fire using an agent suitable for type of surrounding fire. Silica, Quartz itself does not burn.	Silica, Quartz is not compatible with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); ACETYLENE; AMMONIA; HYDROGEN FLUORIDE; and CATECHOL.

SPILL/LEAKS

Isolation Distance:

Spill: 25 meters (75 feet)

Moisten spilled material first or use a HEPA-filter vacuum for clean-up and place into sealed containers for disposal.

PHYSICAL PROPERTIES

Odor Threshold:	Odorless
Flash Point:	Noncombustible
Vapor Pressure:	0 mm Hg at 68°F (20°C)
Specific Gravity:	2.6 (water = 1)
Water Solubility:	Insoluble
Boiling Point:	4,046°F (2,230°C)
Melting Point:	3,110°F (1,719°C)
Molecular Weight:	60.09

EXPOSURE LIMITS

NIOSH: 0.1 mg/m³, 10-hr TWA

ACGIH: 0.025 mg/m³, 8-hr TWA

IDLH: 50 mg/m³

The Protective Action Criteria values are:

PAC-1 = 0.075 mg/m³ PAC-2 = 33 mg/m³

PAC-3 = 200 mg/m³

PROTECTIVE EQUIPMENT

Gloves:	Nitrile and Natural Rubber
Coveralls:	Tyvek®
Respirator:	<1 mg/m ³ - Full facepiece APR with <i>High efficiency filter</i> >1 mg/m ³ - SCBA

HEALTH EFFECTS

Eyes:	Irritation
Skin:	Irritation
Inhalation:	Nose and lung irritation with cough, and shortness of breath (<i>Silicosis</i>)
Chronic:	<i>Crystalline Silica</i> causes cancer (lung) in humans.

FIRST AID AND DECONTAMINATION

Remove the person from exposure.
Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn.
Remove contaminated clothing and wash contaminated skin with soap and water.
Begin artificial respiration if breathing has stopped and CPR if necessary.
Transfer promptly to a medical facility.