



>>>**Variant:** High temp. crystalline-form

Synonym(s): Cristobalite, 9Cl

CAS Registry Number: 14464-46-1

Molecular Formula: O₂Si

Molecular Weight: 60.084

Accurate Mass: 59.966757

Percentage Composition: O 53.26%; Si 46.74%

Source/Synthesis: Occurs widely in igneous rocks. Formed from tridymite above 147° in the presence of a mineraliser

Physical Description: White cryst., stable above 1470° and existing as a metastable phase below 1470° with a high-low form inversion at *ca.* 270°

Fluka: 84880

>>>**Variant:** High pressure crystalline-form

Synonym(s): Coesite, 9Cl

CAS Registry Number: 13778-38-6

Molecular Formula: O₂Si

Molecular Weight: 60.084

Accurate Mass: 59.966757

Percentage Composition: O 53.26%; Si 46.74%

Source/Synthesis: Prepd. by heating Na₂SiO₃ with a mineraliser at 500-800° and 15,000-35,000 atm. Has also been prepd. by oxidation of Si with Ag₂CO₃ under pressure. Rare mineral found in sandstones and near meteorite craters

>>>**Variant:** High pressure crystalline-form

Synonym(s): Keatite, 9Cl

CAS Registry Number: 17679-64-0

Molecular Formula: O₂Si

Molecular Weight: 60.084

Accurate Mass: 59.966757

Percentage Composition: O 53.26%; Si 46.74%

Source/Synthesis: Prepd. by the cryst. of amorphous precipitated silica in a hydrothermal bomb from dilute alkali hydroxide or carbonate solns. at 380-585° and 350-1,200 atm.

Physical Description: Cryst. Unchanged by heating to 1100°, but transformed completely to cristobalite in 3 h at 1620°

>>>**Variant:** V. high pressure crystalline-form

Synonym(s): Stishovite, 9Cl

CAS Registry Number: 13778-37-5

Molecular Formula: O₂Si

Molecular Weight: 60.084

Accurate Mass: 59.966757

Percentage Composition: O 53.26%; Si 46.74%

Source/Synthesis: Prepd. in the laboratory at 1200-1400° and pressure >160,000 atm. Rare mineral found near meteorite-impact craters

>>>**Variant:** Amorphous-form

Synonym(s): Silica gel

Molecular Formula: O₂Si

Molecular Weight: 60.084

Accurate Mass: 59.966757

Percentage Composition: O 53.26%; Si 46.74%

Source/Synthesis: Prepd. by acidifying a sodium silicate soln. to a pH less than 10 or 11. The gel is usually dried and washed free of soluble ions

packing, as an anticaking agent, and for paper coating

Physical Description: Able to adsorb large volumes of gases on its interior and exterior surface