



>>Entry Name: Antimony oxide (Sb_2O_3), 9CI, 8CI

Synonym(s): Antimonous oxide. Antimony(III) oxide. Diantimony trioxide. Antimony white. Flowers of antimony. C.I. Pigment white 11

CAS Registry Number: 1309-64-4

Sb_2O_3

Molecular Formula: O_3Sb_2

Molecular Weight: 291.498

Accurate Mass: 289.792387

Percentage Composition: O 16.47%; Sb 83.53%

Use/Importance: Employed in glass coatings, ceramic compositions, fireproofing agents, electrical components, and as a pigment

Hazard & Toxicity: Poison. Carcinogenic

Aldrich: 20264-9

Fluka: 10781

Sigma: A9399

>>Variant: α -form

Molecular Formula: O_3Sb_2

Molecular Weight: 291.498

Accurate Mass: 289.792387

Percentage Composition: O 16.47%; Sb 83.53%

General Statement: Low temp. form. See Antimony oxide (Sb_4O_6) [JSC87-D](#)

>>Variant: β -form

Molecular Formula: O_3Sb_2

Molecular Weight: 291.498

Accurate Mass: 289.792387

Percentage Composition: O 16.47%; Sb 83.53%

General Statement: High temp. form. Orthorhombic. Sb atom is at centre of tetrahedron (3xO, 1.p.) (Sb-O 198-202 pm) joined at corners to form double infinite chains

Source/Synthesis: Synth. from SbCl_3 + aq. HCl, added to Na_2CO_3 aq. at the boil

Physical Description: Acicular or prismatic cryst.

Melting Point: Mp 655°

Boiling Point: Bp 1425°

Other Data: Transition temp. from α -form is 570° (650°). Subl. at 600°

>>Variant: Mineral-form

Synonym(s): Valentinite

CAS Registry Number: 1317-98-2

Molecular Formula: O_3Sb_2

Molecular Weight: 291.498

Accurate Mass: 289.792387

Percentage Composition: O 16.47%; Sb 83.53%

General Statement: Rhombic

>>Variant: Mineral-form

Synonym(s): Senarmontite

Molecular Formula: O_3Sb_2

Molecular Weight: 291.498

Accurate Mass: 289.792387

Percentage Composition: O 16.47%; Sb 83.53%

General Statement: See Antimony oxide (Sb_4O_6) [JSC87-D](#)

References: