



>>Entry Name: Selenic acid, 11CI

CAS Registry Number: 7783-08-6

Related CAS Registry Numbers(s): 14124-68-6
(HO)₂SeO₂

Molecular Formula: H₂O₄Se

Molecular Weight: 144.973

Accurate Mass: 145.91183

Percentage Composition: H 1.39%; O 44.14%; Se 54.47%

Source/Synthesis: Synth. from SeO₂ + H₂O₂

Use/Importance: Strong oxidising agent

Physical Description: Colourless deliquescent cryst.

Melting Point: Mp 55-58°

Boiling Point: Bp_{0.001} 202°

Solubility: Sol. H₂O

Density: d²⁰ 2.59

pKa Value: pK_a 1.66 (25°)

Other Data: Forms solid hydrates, and acid and neutral salts

Aldrich: 30843-9

Fluka: 84931

>>Derivative: Monohydrate

Molecular Formula: H₄O₅Se

Molecular Weight: 162.989

Accurate Mass: 163.922395

Percentage Composition: H 2.47%; O 49.08%; Se 48.45%

Physical Description: White needles

Boiling Point: Bp 205°

Solubility: V. sol. H₂O

>>Derivative: Dideutero compd.

Synonym(s): Selenic acid-*d*₂. Dideuteroselenic acid

Molecular Formula: D₂O₄Se

Molecular Weight: 146.986

Source/Synthesis: Synth. from D₂SeO₃ + D₂O₂

Other Data: Not found as free acid. Distorted tetrahedral struct.

>>Derivative: Di-Na salt

>>Derivative: Di-K salt

>>Derivative: Di-Cs salt

CAS Registry Number: 10326-29-1

Molecular Formula: Cs₂O₄Se

Molecular Weight: 408.768

Accurate Mass: 409.707038

Percentage Composition: Cs 65.03%; O 15.66%; Se 19.32%

Physical Description: Colourless orthorhombic cryst.

Other Data: Se-O 163-164 pm; angle: OSeO 107.9-110.6°. Δ*H*_f^o (per Cs₂SeO₄) -1139 kJ mol⁻¹