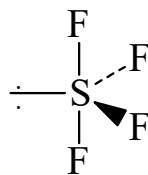




>>Entry Name: Sulfur fluoride (SF₄), 11Cl

Synonym(s): Sulfur tetrafluoride. Tetrafluorosulfur



CAS Registry Number: 7783-60-0

Molecular Formula: F₄S

Molecular Weight: 108.06

Accurate Mass: 107.965682

Percentage Composition: F 70.33%; S 29.67%

Source/Synthesis: Synth. from SCl₂ + NaF or from CoF₃ + S

Use/Importance: Commercially available. Selective fluorinating agent

Physical Description: Colourless gas. Readily hydrol. Stable in dry pyrex glass vessels

Melting Point: Mp -121°

Boiling Point: Bp -38°

Solubility: V. sol. C₆H₆

Density: d⁻⁷⁸ 1.95

Hazard & Toxicity: Toxic, strong irritant, corrosive. Violent reaction with water

Aldrich: 29572-8

>>Derivative: NH₃ complex

Synonym(s): Amminetetrafluorosulfur(IV)

CAS Registry Number: 94929-53-0

Molecular Formula: F₄H₃NS

Molecular Weight: 125.09

Accurate Mass: 124.992231

Percentage Composition: F 60.75%; H 2.42%; N 11.20%; S 25.63%

Source/Synthesis: From SF₄ and NH₃ in matrix isolation conditions

Other Data: Lewis acid-base adduct

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