



>>Entry Name: Iodine fluoride (IF₅)

Synonym(s): Iodine pentafluoride

CAS Registry Number: 7783-66-6

IF₅ (C_{4v})

Molecular Formula: F₅I

Molecular Weight: 221.897

Accurate Mass: 221.896488

Percentage Composition: F 42.81%; I 57.19%

forming IF₄⁽⁺⁾ + IF₆⁽⁻⁾

Source/Synthesis: Synth. from F₂ and I₂

Use/Importance: Manuf. commercially. Extremely vigorous fluorinating agent but can be handled in glass apparatus

Physical Description: Yellow liq.

Melting Point: Mp 9.4°. Mp 8.5°

Boiling Point: Bp 104.5°. Bp 102°

Density: d₂₅²⁵ 3.252. d₂²⁵ 3.207

Other Data: ΔH_f^o -843 kJ mol⁻¹

Hazard & Toxicity: Reacts violently with H₂O

References:

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