



>>Entry Name: Iodosobenzene, 8Cl

Synonym(s): Iodosylbenzene, 9Cl

CAS Registry Number: 536-80-1
PhIO

Molecular Formula: C₆H₅IO

Molecular Weight: 220.009

Accurate Mass: 219.938513

Percentage Composition: C 32.76%; H 2.29%; I 57.68%; O 7.27%

Use/Importance: Oxidising agent. Used as an intensifying agent in colour photography. Oxidises secondary amines to imines

Physical Description: Yellow amorph. powder

Melting Point: Mp 210 dec.°

Other Data: Dec. slowly on standing

Hazard & Toxicity: Explodes at 210°. LD₅₀ (mus, ivn) 180 mg/kg

Rare Chemicals Library: S36927-6

>>Derivative: Di-Ac

>>Derivative: Dibenzoyl

Synonym(s): Bis(benzoato-*O*)phenyliodine, 9Cl

CAS Registry Number: 6597-18-8

Molecular Formula: C₂₀H₁₅IO₄

Molecular Weight: 446.241

Accurate Mass: 446.001508

Percentage Composition: C 53.83%; H 3.39%; I 28.44%; O 14.34%

Melting Point: Mp 159-160°

References:

Baker, G.P. *et al.*, *J.C.S.*, 1965, 3721, (*deriv*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 507; **4**, 266

Arshad, M. *et al.*, *Pak. J. Sci. Ind. Res.*, 1969, **12**, 12, (*ir, uv*)

Ehrenfreund, J. *et al.*, *Tetrahedron*, 1972, **28**, 1697; *Annalen*, 1973, 290, (*use, deriv*)

Org. Synth., Coll. Vol., 5, 1973, 658, (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1982, **10**, 213; **13**, 151; **15**, 175; **16**, 186; **12**, 258; **11**, 270, (*use*)

Moriarty, R.M. *et al.*, *J.A.C.S.*, 1985, **107**, 1375, (*synth*)

Larsen, J. *et al.*, *J.C.S. Perkin 2*, 1992, 1213, (*use*)

Kitamura, T. *et al.*, *Org. Prep. Proced. Int.*, 1997, **29**, 411-458, (*use*)

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Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, IFC000