



>>Entry Name: Silicon bromide (SiBr₄)

Synonym(s): Silicon tetrabromide. Tetrabromosilane

CAS Registry Number: 7789-66-4

SiBr₄ (*T_d*)

Molecular Formula: Br₄Si

Molecular Weight: 347.701

Accurate Mass: 343.730271

Percentage Composition: Br 91.92%; Si 8.08%

Source/Synthesis: Synth. from Tribromophenylsilane [FJM23-C](#) + HBr/AlBr₃

Physical Description: Colourless fuming liq. (cubic solid); hydrol. by H₂O, H₂SO₄

Melting Point: Mp 5.4°. Fp -12°

Boiling Point: Bp 154°

Aldrich: 33346-8

Fluka: 85368

References:

Kurdyumov, G.M. *et al.*, *Issled. Obl. Neorg. Tekhnol.*, 1972, 351, (*synth*)

Macialowicz, A. *et al.*, *Pr. Inst. Technol. Elektron. (Warsaw)*, 1973, **6**, 17, (*synth*)

Andrews, S.P. *et al.*, *J. Chem. Res., Synop.*, 1978, 94, (*ir*)

Olah, G.A. *et al.*, *Organometallics*, 1982, **1**, 1485, (*Si-29 nmr*)

Iijima, T. *et al.*, *J. Mol. Struct.*, 1986, **144**, 191-192, (*gas-phase struct*)

Horn, H.-G. *et al.*, *Z. Anorg. Allg. Chem.*, 1996, **622**, 1083-1084, (*synth, ir, Si-29 nmr, ms*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, SCP500