



>>Entry Name: Antimony telluride (Sb_2Te_3), 9Cl, 8Cl

Synonym(s): Diantimony tritelluride. Antimony(III) telluride. Antimony tritelluride (incorr.). Antimonous telluride

CAS Registry Number: 1327-50-0

Sb_2Te_3

Molecular Formula: Sb_2Te_3

Molecular Weight: 626.3

Accurate Mass: 631.526329

Percentage Composition: Sb 38.88%; Te 61.12%

General Statement: Layer struct. with 15 layer hexagonal unit cell with tetradymite lattice

Source/Synthesis: From Sb + Te; or Sb_2O_3 + Te + Na formate at 300°/100 atm.

Physical Description: Grey solid with metallic lustre

Boiling Point: Bp 629° (620°)

Other Data: Possesses thermoelastic props. Semiconductor

Aldrich: 34312-9

References:

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Stasova, M.M. *et al.*, *Zh. Strukt. Khim.*, 1967, **8**, 85; *J. Struct. Chem. (Engl. Transl.)*, 1967, **8**, 69, (cryst struct)

Ullner, H.-A. *et al.*, *Ann. Phys. (Leipzig)*, 1968, **21**, 45, (cryst struct)

Cambi, L. *et al.*, *Chim. Ind. (Milan)*, 1968, **50**, 869, (synth)

Ban, V.S. *et al.*, *J. Chem. Phys.*, 1970, **52**, 248, (ms)

Richter, W. *et al.*, *Phys. Status Solidi B*, 1977, **84**, 619, (ir, Raman, struct)

Thuler, M.R. *et al.*, *J. Chem. Phys.*, 1982, **71**, 265, (pe)

Satow, T. *et al.*, *Phys. Status Solidi A*, 1982, **71**, 555, (struct)

Chassé, T. *et al.*, *Cryst. Res. Technol.*, 1985, **20**, 1475, (pe)

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Jumas, J.C. *et al.*, *Hyperfine Interact.*, 1986, **28**, 777, (Mössbauer)

Lo}stak, P. *et al.*, *J. Cryst. Growth*, 1989, **94**, 656, (synth)

Alonzo, G. *et al.*, *J. Phys. Chem. Solids*, 1989, **50**, 1195, (Mössbauer)

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