



>>Entry Name: Hydrogen telluride (H₂Te), ¹¹Cl

Synonym(s): Tellane. Monotellane. Dihydrogen telluride

CAS Registry Number: 7783-09-7

H₂Te (C_{2v})

Molecular Formula: H₂Te

Molecular Weight: 129.616

Accurate Mass: 131.921879

Percentage Composition: H 1.56%; Te 98.44%

Source/Synthesis: Formed by cathodic red. of Te or from Al₂Te₃ + HCl

Physical Description: Colourless evil smelling gas. Readily dec. to Te by air, H₂O or thermally above 0°. Liq. dec. by light

Melting Point: Mp -48.9°

Boiling Point: Bp -2.2°

Solubility: Dec. in H₂O

Density: d⁻¹² 2.68

pKa Value: pK_{a1} 2.6; pK_{a2} 11

Hazard & Toxicity: Highly poisonous

>>Derivative: Deutero compd.

Synonym(s): Hydrogen telluride-d₂. Deuterium telluride

CAS Registry Number: 38234-65-0

Molecular Formula: D₂Te

Molecular Weight: 131.628

Source/Synthesis: Formed from Al₂Se₃ + D₂O

Physical Description: Colourless gas

Other Data: Dec. =0°

>>Derivative: Di-Li salt

References:

Moncur, N.K. *et al.*, *J. Mol. Spectrosc.*, 1974, **52**, 181; 380, (*struct*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **1**, 429, (*synth*)

Gmelin Handbook Inorg. Chem., Syst. No. 11, Suppl. Vol., 1976, **B1**, 1, (*rev, bibl*)

Kambe, N. *et al.*, *Angew. Chem., Int. Ed.*, 1980, **19**, 1009, (*synth, reactions, D₂Te*)

Montano, P.A. *et al.*, *J. Chem. Phys.*, 1981, **74**, 5558, (*synth, Mössbauer*)