



>>Entry Name: Telluric acid (H₂TeO₃), 11Cl

Synonym(s): Tellurous acid

CAS Registry Number: 10049-23-7

Related CAS Registry Numbers(s): 15852-22-9

O=Te(OH)₂

Molecular Formula: H₂O₃Te

Molecular Weight: 177.614

Accurate Mass: 179.906624

Percentage Composition: H 1.13%; O 27.02%; Te 71.84%

Source/Synthesis: Synth. from TeCl₄ + H₂O or K₂TeO₃ + HNO₃

Physical Description: White cryst. or powder. Forms acid and neutral salts. May be oxidised to tellurates or reduced to Te. Readily dehydrated

Solubility: Sl. sol. H₂O; sol. dil. acid or alkali

pKa Value: pK_{a1} 2.7; pK_{a2} 7.7 (25°)

>>Derivative: Di-Na salt

Synonym(s): Sodium tellurite (Na₂TeO₃). Sodium tellurate(IV) (Na₂TeO₃)

CAS Registry Number: 10102-20-2

Extra CAS Registry Numbers(s): 22451-06-5

Molecular Formula: Na₂O₃Te

Molecular Weight: 221.578

Accurate Mass: 223.870508

Percentage Composition: Na 20.75%; O 21.66%; Te 57.59%

Physical Description: White powder

Solubility: Sol. H₂O

Other Data: H_{f298} (per Na₂TeO₃) –1001 kJ mol^{–1}

Hazard & Toxicity: Poison

Aldrich: 40068-8

>>Derivative: Di-K salt

>>Derivative: Di-Rb salt

CAS Registry Number: 15885-40-2

Molecular Formula: O₃Rb₂Te

Molecular Weight: 346.534

Accurate Mass: 347.714562

Percentage Composition: O 13.85%; Rb 49.33%; Te 36.82%

Other Data: ΔH_f (per Rb₂TeO₃) –1001 kJ mol^{–1}

References:

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **1**, 437, (*synth*)

Gmelin Handbook Inorg. Chem., Syst. No. 11, Suppl. Vol., 1976, **B1**, 80, (*bibl*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, SKC500