



>>Entry Name: Tellurium oxide (TeO₂)

Synonym(s): Tellurium dioxide

CAS Registry Number: 7446-07-3

Extra CAS Registry Numbers(s): 11099-09-5

TeO₂

Molecular Formula: O₂Te

Molecular Weight: 159.599

Accurate Mass: 161.896059

Percentage Composition: O 20.05%; Te 79.95%

Physical Description: Dimorphous solid. Melts to a dark red liq.

Boiling Point: Bp 790-940°

Solubility: Sol. aq. NaOH, HCl; almost insol. H₂O

Aldrich: 43590-2

Fluka: 86370

>>Variant: α-form

Synonym(s): Paratellurite

CAS Registry Number: 15792-88-8

Molecular Formula: O₂Te

Molecular Weight: 159.599

Accurate Mass: 161.896059

Percentage Composition: O 20.05%; Te 79.95%

Source/Synthesis: Synth. from Te dissolved in conc. HNO₃

Physical Description: Colourless cryst.

Melting Point: Mp 732.6°

>>Variant: β-form

Synonym(s): Tellurite

Molecular Formula: O₂Te

Molecular Weight: 159.599

Accurate Mass: 161.896059

Percentage Composition: O 20.05%; Te 79.95%

Source/Synthesis: Mineral

Physical Description: Yellow cryst.

References:

Inorg. Synth., 1950, **3**, 143, (*synth*)

Leciejewicz, J., *Z. Kristallogr.*, 1961, **116**, 345, (*struct*)

Dutton, W.A. *et al.*, *Chem. Rev.*, 1966, **66**, 657, (*rev*)

Beyer, H., *Z. Kristallogr.*, 1967, **124**, 228, (*cryst struct*)

Lindqvist, O., *Acta Chem. Scand.*, 1968, **22**, 977, (*cryst struct, α-form*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **1**, 436, (*synth*)

Gmelin Handbook Inorg. Chem., Syst. No. 11, 1976, **B1**, 31, (*rev, bibl*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, TAJ750