



>>Entry Name: Sodium tungstate(VI) (Na₂WO₄)

Synonym(s): Sodium tungstate

CAS Registry Number: 13472-45-2

Extra CAS Registry Numbers(s): 11140-64-0

Na₂WO₄

Molecular Formula: Na₂O₄W

Molecular Weight: 293.827

Accurate Mass: 293.910122

Percentage Composition: Na 15.65%; O 21.78%; W 62.57%
²⁽⁻⁾ ions. Has modified spinel struct.

Source/Synthesis: Synth. by e.g. dissolving WO₃ in KOH or K₂CO₃ solns.

Biological Use/Importance: Antihyperglycaemic agent

Melting Point: Mp 695°

Solubility: Sol. H₂O

Other Data: Reduction with H₂ at 500-800° gives bronzes, followed by WO₂ at 600°. Final product is β-tungsten. ΔH_{f298}° (per Na₂WO₄) -1547 kJ mol⁻¹

>>Derivative: Dihydrate

CAS Registry Number: 10213-10-2

Use/Importance: Commercially available

Physical Description: Colourless efflorescent cryst.

Solubility: V. sol. H₂O; insol. EtOH

Other Data: Loses 2H₂O at 100°

Aldrich: 22333-6

Fluka: 72070

Sigma: T2629

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1292B, (*ir*)

Rieck, G.D., *Tungsten and its Compounds*, Pergamon, 1967, 101, (*rev*)

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Rodriguez-Gallardo, *Eur. J. Pharmacol.*, 2000, **402**, 199-204, (*pharmacol*)

Le Lamer, S. *et al.*, *J. Pharmacol. Exp. Ther.*, 2000, **294**, 714-721, (*pharmacokinet*)

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