



>>Entry Name: Pentakis(dimethylamido)tantalum(V)

Synonym(s): Pentakis(dimethylamino)tantalum(V). Tantalum(V) dimethylamide

CAS Registry Number: 19824-59-0

Ta(NMe₂)₅

Molecular Formula: C₁₀H₃₀N₅Ta

Molecular Weight: 401.328

Accurate Mass: 401.198112

Percentage Composition: C 29.93%; H 7.53%; N 17.45%; Ta 45.09%

Source/Synthesis: Synth. by adding TaCl₅ to a suspension of LiNMe₂ in pentane

Physical Description: Pale yellow solid

Boiling Point: Subl._{0.1} 100°

Other Data: Other Ta(NR₂)₅ species may be isolated similarly (R = Et, Pr, Bu)

References:

Bradley, D.C. *et al.*, *Proc. Chem. Soc., London*, 1959, 225, (*synth*)

Bradley, D.C. *et al.*, *Can. J. Chem.*, 1962, **40**, 1355, (*synth*)

Hagen, K. *et al.*, *Inorg. Chem.*, 1992, **31**, 4733, (*ed, struct*)