



>>Entry Name: Tantalum hydrides

CAS Registry Number: 12712-83-3

Related CAS Registry Numbers(s): 37368-05-1

Molecular Formula: [HTa]

>>Variant: Tantalum hydride (Ta₂H), 11Cl

CAS Registry Number: 12026-09-4

Molecular Formula: HTa₂

Molecular Weight: 362.904

Accurate Mass: 362.903809

Percentage Composition: H 0.28%; Ta 99.72%

Source/Synthesis: Synth. by heating Ta in H₂ or by interaction of H₂O with a Ta film at low pressure

>>Derivative: Deutero compd.

Synonym(s): Tantalum hydride (Ta₂D)

CAS Registry Number: 12132-98-8

Molecular Formula: DTa₂

Molecular Weight: 363.91

>>Variant: Tantalum hydride (TaH), 11Cl

CAS Registry Number: 13981-95-8

Molecular Formula: HTa

Molecular Weight: 181.956

Accurate Mass: 181.955817

Percentage Composition: H 0.55%; Ta 99.45%

Source/Synthesis: Manuf. by heating Ta to 450° in H₂ at 1 atm.

>>Derivative: Deutero compd.

Synonym(s): Tantalum hydride (TaD). Tantalum monodeuteride

CAS Registry Number: 20813-60-9

Molecular Formula: DTa

Molecular Weight: 182.962

References:

- Palenik, G.J., *J. Chem. Phys.*, 1964, **41**, 3260, (*nd, synth, Ta₂D*)
Fr. Pat., 1965, 1 140 887; *CA*, **65**, 5168d, (*manuf, TaH*)
Somenkov, V.A. *et al.*, *Dokl. Akad. Nauk SSSR*, 1968, **181**, 56; *CA*, **69**, 62383k, (*nd, TaH*)
Nakamura, K., *Bull. Chem. Soc. Jpn.*, 1972, **45**, 3356, (*nmr, Ta₂D*)
Wanagel, J. *et al.*, *Phys. Status Solidi A*, 1972, **11**, K97, (*ed, Ta₂H*)
Schober, T., *CA*, 1978, **92**, 63038p, (*rev, structs*)
Asano, H., *Nippon Kessho Gakkaishi*, 1984, **26**, 169; *CA*, **102**, 195345w, (*rev*)
Murata, H. *et al.*, *Trans. Jpn. Inst. Met.*, 1985, **26**, 795, (*nd, Ta₂D*)
Weyman, K. *et al.*, *J. Less-Common Met.*, 1986, **119**, 127, (*synth, cryst struct, TaD*)
Hauck, J. *et al.*, *Springer Proc. Phys.*, 1986, **10**, 176, (*rev, struct disorder*)