



Ta(NtAm)(NMe₂)₃

Tantalum t-amylimide tris(dimethylamide)

Tertiaryamylimidotris(dimethylamido)tantalum

"Taimata"

Chemical formula Ta[NC(CH₃)₂C₂H₅][N(CH₃)₂]₃

CAS No. [629654-53-1]

Formula weight 398.3

Physical form White (colorless) solid

Melting point 36°C

Degree of association 1 (in benzene solution)

Solubility miscible with toluene, hexane and octane

Viscosity 3.0cSt/50°C 1.8cSt/75°C

Density 1.43g/cm³

air and moisture sensitive

Typical impurities (ppm) Na <1 K <1 Mg <1 Ca <1 Cr <1 Fe <1 Cu <1 Ni <1

Vapor pressure (as monomer)

measured by gas saturation method

(temperature : 60~100°C)

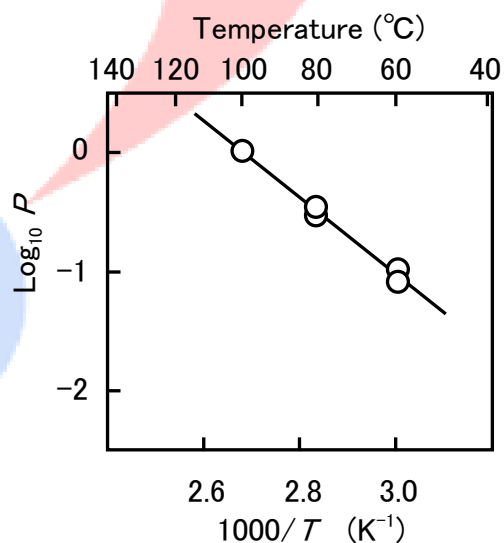
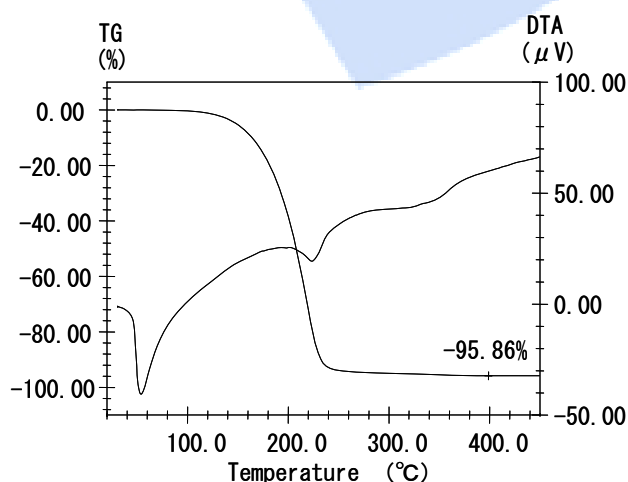
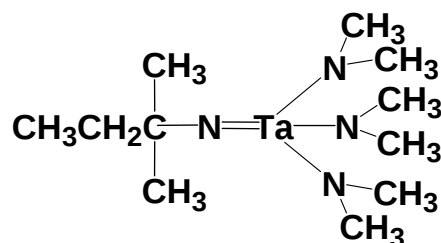
61°C/0.1Torr

Clausius-Clapeyron equation

$$\log_{10} P = -\frac{3233}{T} + 8.67$$

P: Torr T: K

Heat of vaporization : 14.8 kcal/mol

Fig. Clausius-Clapeyron plots for Ta(NtAm)(NMe₂)₃Fig. TG-DTA of Ta(NtAm)(NMe₂)₃ (1atm, in Ar)Fig. Structural formula of Ta(NtAm)(NMe₂)₃