



>>Entry Name: Dimethylcadmium, 9CI

CAS Registry Number: 506-82-1

Type of Compound Code(s): BB0170 BB0200 BB0240 BA0530
CdMe₂

Molecular Formula: C₂H₆Cd

Molecular Weight: 142.48

Accurate Mass: 143.950307

Percentage Composition: C 16.86%; H 4.24%; Cd 78.90%

Source/Synthesis: Synth. from MeMgI and CdCl₂

Use/Importance: Polym. catalyst; reagent for synth. of methyl ketones from acyl halides; adds to aldehydes and ketones in presence of Mg salts; undergoes 1,2- and 1,4-addn. to enones

Physical Description: Liq. with musty odour

Melting Point: Mp -2.4°

Boiling Point: Bp 105.7°

Density: d^{17.9} 1.985

Refractive Index: n_D¹⁷ 1.5488

Hazard & Toxicity: May dec. explosively above 100°. Pyrophoric. Forms explosive peroxide on exp. to air. V. toxic

>>Derivative: Bipy complex

CAS Registry Number: 15094-74-3

Molecular Formula: C₁₂H₁₄CdN₂

Molecular Weight: 298.667

Accurate Mass: 300.019055

Percentage Composition: C 48.26%; H 4.72%; Cd 37.64%; N 9.38%

Physical Description: Volatile yellow cryst.

Other Data: Dissoc. on heating at <110° *in vacuo*

>>Derivative: 4,4'-Bipy complex

CAS Registry Number: 107574-22-1

Physical Description: Colourless cryst. (THF at -30°)

Other Data: Dissoc. completely on heating at 110° *in vacuo*

>>Derivative: TMED complex

Synonym(s): Dimethyl(tetramethylethylenediamine)cadmium

CAS Registry Number: 107574-21-0

Molecular Formula: C₈H₂₂CdN₂

Molecular Weight: 258.686

Accurate Mass: 260.081655

Percentage Composition: C 37.14%; H 8.57%; Cd 43.45%; N 10.83%

Physical Description: White cryst. (by subl.)

Melting Point: Mp 62-63°

Boiling Point: Subl._{0.02} 70°

Solubility: Sol. Et₂O

>>Derivative: 1,4-Dioxan complex

CAS Registry Number: 15094-72-1

Molecular Formula: C₆H₁₄CdO₂

Molecular Weight: 230.586

Accurate Mass: 232.002737

Percentage Composition: C 31.25%; H 6.12%; Cd 48.75%; O 13.88%

Melting Point: Mp 57°

Boiling Point: Subl._{0.02} 22°

Other Data: 1-D polymeric struct. with 1,4-dioxan bridging Me₂Cd units → 4-coord. metal centres