Al (<5% impurities). High deposition rates can be achieved. Low resistivity of deposits (6.5 μΩcm). Can be used for direct writing of Al lines for IC rewiring applications on GaAs. Precursor to AlN for use in MOCVD processes in an NH_3 atmosphere
Physical Description: White cryst.
Melting Point: Mp 95°
Other Data: Trigonal pyramidal at Al. Dec. into 1:1 complex >0°
Aldrich: 47065-1

>>**Derivative:** Me_3N complex (2:2)

CAS Registry Number: 145425-34-9
Molecular Formula: $C_6H_{24}Al_2N_2$
Molecular Weight: 178.232
Accurate Mass: 178.157026
Percentage Composition: C 40.43%; H 13.57%; Al 30.28%; N 15.72%
Source/Synthesis: Synth. from $LiAlH_4$ and $[Me_3NH]Cl$
Physical Description: V. air- and moisture-sensitive white solid
Melting Point: Mp 76°

>>**Derivative:** Et_3N complex (1:1)

CAS Registry Number: 12076-08-3
Molecular Formula: $C_6H_{18}AlN$
Molecular Weight: 131.196
Accurate Mass: 131.125463
Percentage Composition: C 54.93%; H 13.83%; Al 20.57%; N 10.68%
Source/Synthesis: Synth. from $[Et_3NH]Cl$ and $LiAlH_4$
Physical Description: Air- and moisture-sensitive white liq.
Melting Point: Mp 13-15°

>>**Derivative:** Me_2EtN complex (1:1)
Synonym(s): DMEAA

CAS Registry Number: 124330-23-0
Molecular Formula: $C_4H_{14}AlN$
Molecular Weight: 103.143
Accurate Mass: 103.094163
Percentage Composition: C 46.58%; H 13.68%; Al 26.16%; N 13.58%
Source/Synthesis: Synth. from $Me_2EtNHCl + LiAlH_4$
Use/Importance: Precursor for chem. vapour deposition of Al thin films
Physical Description: Stable liq.
Melting Point: Mp 5°