

1449
ED

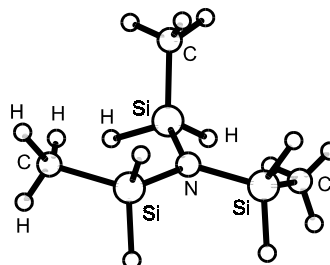
C₃H₁₅NSi₃

Tris(methylsilyl)amine

essentially C_s
N(SiH₂CH₃)₃

r_a	Å ^{a)}	θ_a	deg ^{a)}
Si–N	1.729(3)	Si–N–Si	120.0 ^{b)}
Si–C	1.853(4)	N–Si–C	112.3(8)
Si–H	1.492(10)	H–Si–H	109.0 ^{b)}
C–H	1.107(7)	Si–C–H	109.0(9)
		τ_1 ^{c)}	85.5(65)
		τ_2 ^{c)}	–69.8(45)
		τ_3 ^{c)}	0.0 ^{b)}
		ϕ ^{d)}	60.0 ^{b)}

The NSi₃ skeleton is planar, and one Si–C bond lies perpendicular to this plane, while the other two Si–C bonds are twisted up to 20° out of the plane.
The nozzle was at room temperature.



^{a)} Estimated standard errors including a systematic error.

^{b)} Assumed.

^{c)} Twist angle of the SiH₂CH₃ groups about Si–N bond; $\tau = 0^\circ$ when Si–C bond is perpendicular to the NSi₃ plane.

^{d)} H–C–Si–N torsion angle from the *anti* position.

Ebsworth, E.A.V., Murray, E.K., Rankin, D.W.H., Robertson, H.E.: J. Chem. Soc., Dalton Trans. (1981) 1501.