

1400
ED

C₃H₉NO

***N,N,O*-Trimethylhydroxylamine**

essentially C_s (*anti*)
essentially C_s (*syn*)
H₃C–O–N(CH₃)₂

r_a	Å ^{a)}	θ_a	deg ^{a)}
C–N	1.442(5)	C–N–C	111.5 ^{b)}
C–H	1.135(6)	C–N–O	102.6(7)
N–O	1.513(9)	N–O–C	109.3(12)
O–C	1.350(6)	O–C–H	109.5 ^{b)}
		N–C–H	109.5 ^{b)}
		τ_1 ^{c)}	0 ^{d)} ^{e)}
		τ_1 ^{c)}	180 ^{e)} ^{f)}
		twist (OCH ₃) ^{g)}	0 ^{e)}
		twist (NCH ₃) ^{h)}	5 ^{e)}

Major conformer (80%) has the *anti* form, see figure.
The nozzle temperature was 22 °C.

^{a)} Unidentified, possibly estimated standard errors.

^{b)} Fixed.

^{c)} Dihedral angle, defined as zero when the O–C bond is *trans* with respect to the C–N–C angle bisector.

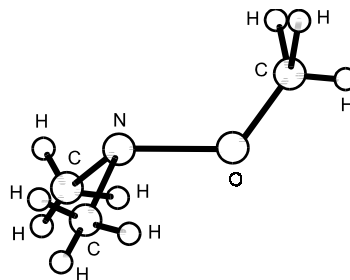
^{d)} Major conformer.

^{e)} Determined by *R*-factor optimization.

^{f)} Minor conformer.

^{g)} OCH₃ twist angle, defined as zero when the methyl group is staggered with respect to the N–O bond.

^{h)} NCH₃ twist angle, defined as zero when the methyl groups are staggered with respect to the further C–N bond. The N(CH₃)₂ group has overall C₂ symmetry.



Rankin, D.W.H., Todd, M.R., Riddell, F.G., Turner, E.S.: J. Mol. Struct. **71** (1981) 171.