Species Tag:	42001	Name:	CH3CN-15
Version:	3		Acetonitrile,
Date:	Decemeber 2009		^{15}N isotope
Contributor:	H.S.P. Müller		
Lines Listed:	1351	Q(300.0)=	10431.9556
Freq. (GHz) <	1683	Q(225.0)=	6774.2565
Max. J:	95	Q(150.0)=	3687.1996
LOGSTR0=	-5.5	Q(75.00)=	1304.3662
LOGSTR1=	-6.5	Q(37.50)=	462.9618
Isotope Corr.:	-2.448	Q(18.75)=	169.3765
Egy. (cm^{-1}) >	0.0	Q(9.375)=	66.0537
μ_a =	3.9256(7)	A=	158099.0
μ_b =		B=	8922.0
μ_c =		C=	B

This entry is a combined CDMS and JPL entry. The latest combined fit has been reported by (1) H. S. P. Müller; B. J. Drouin, and J. C. Pearson, 2009, Astron. Astrophys. 506, 1487. This work provides new data between 338 and 1192 GHz. Additional data were taken from (2) J. C. Pearson and H. S. P. Müller, 1996, Astrophys. J. 471, 1067; and from (3) J. Demaison, A. Dubrulle, and D. Boucher, 1979, J. Mol. Spectrosc. 76, 1; from (4) A. Bauer, 1975, J. Mol. Spectrosc. 58, 111; and from (5) J. Haekel and H. Mäder, 1989, J. Quant. Spectrosc. Radiat. Transfer 41, 9. The purely K-dependent terms A and D_K were assumed to agree with those of the main isotopolog, see d041001.cat. The predictions are probably reliable throughout. Note: Vibrational contributions have not been considered in the calculation of the partition function yet. Rough estimates may be obtained by scaling the respective ground state value with the ratio from the main isotopolog. At low temperatures, it may be necessary to discern between A-$CH_3C^{15}N$ and E-$CH_3C^{15}N$. The A state levels are described by $K = 3n$, those of E state by $K = 3n \pm 1$. The nuclear spin-weight ratio is 2 : 1 for A-$CH_3C^{15}N$ with $K > 0$ and all other states, respectively. The $J_K = 1_1$ level is the lowest E state level. It is 5.5711 cm^{-1} above ground. The dipole moment was reported by (6) A. Mito, J. Sakai, and M. Katayama, 1984, J. Mol. Spectrosc. 103, 26.