

Species Tag:	50007	Species Name:	CH3Cl-35
Version:	3		Methyl chloride
Date:	May 2009		<sup>35</sup> Cl isotope
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Lines Listed:	6386	Q(300.0)=	28103.92
Freq. (GHz) <	2115	Q(225.0)=	17896.38
Max. J:	80	Q(150.0)=	9676.27
LOGSTR0=	-8.0	Q(75.00)=	3406.96
LOGSTR1=	-8.0	Q(37.50)=	1205.45
Isotope Corr.:	-0.122	Q(18.75)=	443.81
Egy. (cm <sup>-1</sup> ) >	-0.0	Q(9.375)=	174.60
$\mu_a$ =	1.899	A=	156051
$\mu_b$ =		B=	13292.9
$\mu_c$ =		C=	B

The data were taken from G. Wlodarczak et al., 1986, J. Mol. Spect. 116, 251, and references cited therein. Additional measurements up to  $K = 12$  were made at JPL for  $J = 24 \leftarrow 23$ . The dipole moment is from J. A. Golby and R. J. Butcher, 1984, J. Mol. Spect. 107, 292, but see also G. Wlodarczak et al., 1985, J. Mol. Spect. 112, 401. In version two a slight modification to the partition function was implemented by taking the product of the calculated rotational partition function with a harmonic oscillator vibrational partition function. In version three the  $D_3$  symmetry group with appropriate spin weights for this  $C_{3v}$  species were applied in order to produce accurate relative intensities.