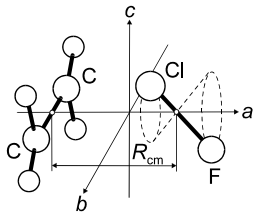
256 **C_2H_4ClF** **Ethylene – chlorine fluoride (1/1)** **C_{2v}**
MW Ethene – chlorine fluoride (1/1) (effective symmetry class)
(weakly bound complex) (large-amplitude motion)
$H_2C{=}CH_2 \cdot ClF$

r_0	Å	
	$C_2H_4 \cdot {}^{35}ClF$	
	set I [a])	set II [a])
R_{cm}	3.3404(50)	3.3439(50)
cm...Cl [b])	2.7660(50)	2.7695(50)
	$C_2H_4 \cdot {}^{37}ClF$	
	set I [a])	set II [a])
R_{cm}	3.3201(50)	3.3235(50)
cm...Cl [b])	2.7662(50)	2.7696(50)



The complex has C_{2v} symmetry with the ClF subunit perpendicular to the plane of C_2H_4 and oriented so that Cl is closer to C_2H_4.

[a]) There are two ways, set I and set II, to derive structural parameters from the observed data. Uncertainties were not estimated in the original paper.
[b]) cm denotes the center of mass of the ethylene molecule.

Bloemink, H.I., Holloway, J.H., Legon, A.C.: Chem. Phys. Lett. **250** (1996) 567.