

# Chlorofluoromethyl radical

Inchi:	InChI=1S/CHCIF/c2-1-3/h1H
InchiKey:	FICFQLDYKDCJHQ-UHFFFAOYSA-N
Formula:	CHCIF
SMILES:	F[CH]Cl
Mol. weight [g/mol]:	67.47
CAS:	33272-71-8

## Physical Properties

Property code	Value	Unit	Source
gf	-199.26	kJ/mol	Joback Method
hf	-225.29	kJ/mol	Joback Method
hfus	3.78	kJ/mol	Joback Method
hvap	20.85	kJ/mol	Joback Method
ie	8.81 ± 0.02	eV	NIST Webbook
ie	8.37 ± 0.05	eV	NIST Webbook
ie	9.16 ± 0.02	eV	NIST Webbook
log10ws	-0.85		Crippen Method
logp	1.314		Crippen Method
mcvol	36.810	ml/mol	McGowan Method
pc	5536.07	kPa	Joback Method
tb	257.84	K	Joback Method
tc	416.39	K	Joback Method
tf	132.91	K	Joback Method
vc	0.143	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	40.88	J/mol×K	257.84	Joback Method
cpg	43.60	J/mol×K	284.27	Joback Method
cpg	46.08	J/mol×K	310.69	Joback Method
cpg	48.33	J/mol×K	337.12	Joback Method
cpg	50.36	J/mol×K	363.54	Joback Method
cpg	52.20	J/mol×K	389.97	Joback Method

## Sources

<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C33272718&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C33272718&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>ie:</b>	Ionization energy
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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