

# 1,1,2,2,3,3,4,4,5,6-decafluoro-5,6-bis(trifluoromethyl)cyclohexane

<b>Inchi:</b>	InChI=1S/C8F16/c9-1(7(19,20)21)2(10,8(22,23)24)4(13,14)6(17,18)5(15,16)3(1,11)12
<b>InchiKey:</b>	GHBZJUJZNRHLHBI-UHFFFAOYSA-N
<b>Formula:</b>	C8F16
<b>SMILES:</b>	FC(F)(F)C1(F)C(F)(F)C(F)(F)C(F)(F)C(F)(F)C1(F)C(F)(F)F
<b>Mol. weight [g/mol]:</b>	400.06
<b>CAS:</b>	306-98-9

## Physical Properties

Property code	Value	Unit	Source
gf	-3141.84	kJ/mol	Joback Method
hf	-3319.65	kJ/mol	Joback Method
hfus	10.33	kJ/mol	Joback Method
hvap	9.72	kJ/mol	Joback Method
log10ws	-5.58		Crippen Method
logp	5.082		Crippen Method
mcvol	141.040	ml/mol	McGowan Method
pc	1798.51	kPa	Joback Method
tb	361.94	K	Joback Method
tc	485.25	K	Joback Method
tf	323.78	K	Joback Method
vc	0.665	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	341.62	J/mol×K	361.94	Joback Method
cpg	357.56	J/mol×K	382.49	Joback Method
cpg	372.02	J/mol×K	403.04	Joback Method
cpg	385.10	J/mol×K	423.59	Joback Method
cpg	396.90	J/mol×K	444.14	Joback Method
cpg	407.54	J/mol×K	464.69	Joback Method
cpg	417.10	J/mol×K	485.25	Joback Method

# Sources

<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</a>
<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=C306989&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C306989&amp;Units=SI</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>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mccvol:</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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