

# Phenanthrene, 2,4-difluoro

<b>Inchi:</b>	InChI=1S/C14H8F2/c15-11-7-10-6-5-9-3-1-2-4-12(9)14(10)13(16)8-11/h1-8H
<b>InchiKey:</b>	RPFCPZFPITZEGV-UHFFFAOYSA-N
<b>Formula:</b>	C14H8F2
<b>SMILES:</b>	Fc1cc(F)c2c(ccc3ccccc32)c1
<b>Mol. weight [g/mol]:</b>	214.21

## Physical Properties

Property code	Value	Unit	Source
gf	-25.80	kJ/mol	Joback Method
hf	-140.25	kJ/mol	Joback Method
hfus	25.09	kJ/mol	Joback Method
hvap	52.67	kJ/mol	Joback Method
log10ws	-5.74		Crippen Method
logp	4.271		Crippen Method
mcvol	148.980	ml/mol	McGowan Method
pc	2841.41	kPa	Joback Method
rinpol	290.51		NIST Webbook
rinpol	290.23		NIST Webbook
rinpol	290.51		NIST Webbook
rinpol	1688.00		NIST Webbook
rinpol	1688.00		NIST Webbook
rinpol	1687.00		NIST Webbook
ripol	282.97		NIST Webbook
ripol	282.97		NIST Webbook
tb	597.84	K	Joback Method
tc	828.74	K	Joback Method
tf	378.10	K	Joback Method
vc	0.592	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	348.97	J/mol×K	597.84	Joback Method
cpg	361.80	J/mol×K	636.32	Joback Method

cpg	373.62	J/mol×K	674.81	Joback Method
cpg	384.52	J/mol×K	713.29	Joback Method
cpg	394.61	J/mol×K	751.77	Joback Method
cpg	403.98	J/mol×K	790.25	Joback Method
cpg	412.72	J/mol×K	828.74	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=R76149&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R76149&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>
<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>

## 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>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>rinpola:</b>	Non-polar retention indices
<b>ripola:</b>	Polar retention indices
<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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