

Bis(4-fluorophenyl)methane

Other names:	4,4'-Difluorodiphenylmethane 4,4'-Difluorodiphenylamine Benzene, 1,1'-methylenebis[4-fluoro-1,1'-methylenebis[4-fluorobenzene]
Inchi:	InChI=1S/C13H10F2/c14-12-5-1-10(2-6-12)9-11-3-7-13(15)8-4-11/h1-8H,9H2
InchiKey:	DXQVFHQUHOFCROC-UHFFFAOYSA-N
Formula:	C13H10F2
SMILES:	Fc1ccc(Cc2ccc(F)cc2)cc1
Mol. weight [g/mol]:	204.22
CAS:	457-68-1

Physical Properties

Property code	Value	Unit	Source
gf	-125.48	kJ/mol	Joback Method
hf	-253.75	kJ/mol	Joback Method
hfus	22.89	kJ/mol	Joback Method
hvap	48.77	kJ/mol	Joback Method
log10ws	-4.24		Crippen Method
logp	3.556		Crippen Method
mcvol	150.050	ml/mol	McGowan Method
pc	2701.41	kPa	Joback Method
tb	558.70	K	Joback Method
tc	781.07	K	Joback Method
tf	315.33	K	Joback Method
vc	0.584	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	340.70	J/molxK	558.70	Joback Method
cpg	355.43	J/molxK	595.76	Joback Method
cpg	369.15	J/molxK	632.82	Joback Method
cpg	381.92	J/molxK	669.89	Joback Method
cpg	393.78	J/molxK	706.95	Joback Method

cpg	404.77	J/mol×K	744.01	Joback Method
cpg	414.95	J/mol×K	781.07	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	532.00 ± 1.00	K	98.90	NIST Webbook

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C457681&Units=SI

Legend

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

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