Naphthalene, 1,1'-(1,2-ethanediyl)bis-

Other names: Ethane, 1,2-di-1-naphthyl-
1,2-Di-«alpha»-naphthylethane
1,2-di(1-Naphthyl)ethane
1,2-Di(.allpha.-naphthyl)-ethane
Inchi: InChI=1S/C22H18/c1-3-13-21-17(7-1)9-5-11-19(21)15-16-20-12-6-10-18-8-2-4-14-22(18)
InchiKey: OJGSITVFPMSVGU-UHFFFAOYSA-N
Formula: C22H18
SMILES: c1ccc2c(CCc3cccc4ccccc34)cccc2c1
Mol. weight [g/mol]: 282.38
CAS: 15374-45-5

Physical Properties

Property code	Value	Unit	Source
gf	553.22	kJ/mol	Joback Method
hf	334.85	kJ/mol	Joback Method
hfus	34.08	kJ/mol	Joback Method
hvap	73.72	kJ/mol	Joback Method
log10ws	-7.50		Crippen Method
logp	5.778		Crippen Method
mcvol	234.400	ml/mol	McGowan Method
pc	2051.17	kPa	Joback Method
tb	804.04	K	Joback Method
tc	1061.83	K	Joback Method
tf	480.98	K	Joback Method
vc	0.895	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	662.22	J/mol×K	804.04	Joback Method
cpg	735.29	J/mol×K	1018.86	Joback Method
cpg	722.27	J/mol×K	975.90	Joback Method
cpg	708.65	J/mol×K	932.93	Joback Method
cpg	694.24	J/mol×K	889.97	Joback Method

cpg	678.83	J/mol×K	847.00	Joback Method
cpg	747.90	J/mol×K	1061.83	Joback Method
dvisc	0.0002932	Pa×s	804.04	Joback Method
dvisc	0.0003428	Pa×s	750.20	Joback Method
dvisc	0.0004106	Pa×s	696.35	Joback Method
dvisc	0.0005069	Pa×s	642.51	Joback Method
dvisc	0.0006504	Pa×s	588.67	Joback Method
dvisc	0.0008775	Pa×s	534.82	Joback Method
dvisc	0.0012660	Pa×s	480.98	Joback Method

Sources

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=C15374455&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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