

Naphthalene, 1,1'-(1,4-butanediyl)bis-

Inchi:	InChI=1S/C24H22/c1(9-19-13-7-15-21-11-3-5-17-23(19)21)2-10-20-14-8-16-22-12-4-6-1
InchiKey:	OISFPCIBPOZHNF-UHFFFAOYSA-N
Formula:	C24H22
SMILES:	c1ccc2c(CCCc3cccc4cccc34)cccc2c1
Mol. weight [g/mol]:	310.43
CAS:	29571-17-3

Physical Properties

Property code	Value	Unit	Source
gf	570.06	kJ/mol	Joback Method
hf	293.57	kJ/mol	Joback Method
hfus	39.26	kJ/mol	Joback Method
hvap	78.17	kJ/mol	Joback Method
ie	7.67	eV	NIST Webbook
log10ws	-8.34		Crippen Method
logp	6.558		Crippen Method
mcvol	262.580	ml/mol	McGowan Method
pc	1736.11	kPa	Joback Method
tb	849.80	K	Joback Method
tc	1097.58	K	Joback Method
tf	503.52	K	Joback Method
vc	1.008	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	775.54	J/molxK	849.80	Joback Method
cpg	851.82	J/molxK	1056.29	Joback Method
cpg	837.96	J/molxK	1014.99	Joback Method
cpg	823.59	J/molxK	973.69	Joback Method
cpg	808.52	J/molxK	932.39	Joback Method
cpg	792.56	J/molxK	891.10	Joback Method
cpg	865.35	J/molxK	1097.58	Joback Method
dvisc	0.0002403	Paxs	849.80	Joback Method

dvisc	0.0002837	Paxs	792.09	Joback Method
dvisc	0.0003440	Paxs	734.37	Joback Method
dvisc	0.0004308	Paxs	676.66	Joback Method
dvisc	0.0005629	Paxs	618.95	Joback Method
dvisc	0.0007769	Paxs	561.23	Joback Method
dvisc	0.0011544	Paxs	503.52	Joback Method

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=C29571173&Units=SI

Legend

cp_g:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
g_f:	Standard Gibbs free energy of formation
h_f:	Enthalpy of formation at standard conditions
h_{fus}:	Enthalpy of fusion at standard conditions
h_{vap}:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log₁₀ws:	Log10 of Water solubility in mol/l
log_p:	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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