Naphthalene, 1,1'-(1-undecenylidene)bis-

Other names:	1,1-Di(1'-naphthyl)-1-undecene
	1,1-Di(1-naphthyl)-1-undecene
	1,1-Di(«alpha»-naphthyl)-1-hendecene
	1,1-Di(«alpha»-naphthyl)-1-undecene
	1,1-Di(Â«alphaÂ»-naphthyl)-1-hendecene
	1,1-Di(Â«alphaÂ»-naphthyl)-1-undecene
Inchi:	InChI=1S/C31H34/c1-2-3-4-5-6-7-8-9-22-31(29-23-14-18-25-16-10-12-20-27(25)29)30-24
InchiKey:	CXEYSUXGEZTNBF-UHFFFAOYSA-N
Formula:	C31H34
SMILES:	CCCCCCCCCC=C(c1cccc2ccccc12)c1cccc2ccccc12
Mol. weight [g/mol]:	406.60
CAS:	56247-76-8

Physical Properties

Property code	Value	Unit	Source
gf	700.67	kJ/mol	Joback Method
hf	256.52	kJ/mol	Joback Method
hfus	56.28	kJ/mol	Joback Method
hvap	93.79	kJ/mol	Joback Method
log10ws	-11.39		Crippen Method
logp	9.565		Crippen Method
mcvol	356.910	ml/mol	McGowan Method
pc	1100.08	kPa	Joback Method
tb	1014.00	K	Joback Method
tc	1254.42	K	Joback Method
tf	563.37	K	Joback Method
vc	1.381	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1169.98	J/mol×K	1014.00	Joback Method
cpg	1189.23	J/mol×K	1054.07	Joback Method
cpg	1208.00	J/mol×K	1094.14	Joback Method

cpg	1226.53	J/mol×K	1134.21	Joback Method
cpg	1245.02	J/mol×K	1174.28	Joback Method
cpg	1263.70	J/mol×K	1214.35	Joback Method
cpg	1282.79	J/mol×K	1254.42	Joback Method
hvapt	109.30	kJ/mol	553.00	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	2.37606e+01
Coeff. B	-1.53044e+04
Coeff. C	6.37220e+01
Temperature range (K), min.	588.28
Temperature range (K), max.	765.82

Sources

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=C56247768&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l

logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume