Naphthalene, 1-pentadecyl-

Other names:	1-«alpha»-Naphthylpentadecane
	1-n-Pentadecylnaphthalene
	1-Pentadecylnaphthalene
Inchi:	InChI=1S/C25H38/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-18-23-20-17-21-24-19-15-16-22-25
InchiKey:	CRNKGYFOWLZFDQ-UHFFFAOYSA-N
Formula:	C25H38
SMILES:	CCCCCCCCCCCCCCCc1cccc2ccccc12
Mol. weight [g/mol]:	338.57
CAS:	55191-63-4

Physical Properties

Property code	Value	Unit	Source
gf	369.05	kJ/mol	Joback Method
hf	-143.20	kJ/mol	Joback Method
hfus	51.18	kJ/mol	Joback Method
hvap	75.82	kJ/mol	Joback Method
log10ws	-9.52		Crippen Method
logp	8.473		Crippen Method
mcvol	319.890	ml/mol	McGowan Method
pc	1070.06	kPa	Joback Method
tb	822.04	K	Joback Method
tc	1019.78	K	Joback Method
tf	314.75 ± 0.50	K	NIST Webbook
vc	1.250	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1090.55	J/mol×K	986.82	Joback Method
cpg	1105.86	J/mol×K	1019.78	Joback Method
cpg	1001.10	J/mol×K	822.04	Joback Method
cpg	1020.98	J/mol×K	855.00	Joback Method
cpg	1039.78	J/mol×K	887.95	Joback Method
cpg	1057.59	J/mol×K	920.91	Joback Method

cpg	1074.49	J/mol×K	953.87	Joback Method
dvisc	0.0001008	Pa×s	822.04	Joback Method
dvisc	0.0001278	Pa×s	758.89	Joback Method
dvisc	0.0011599	Pa×s	443.15	Joback Method
dvisc	0.0005988	Pa×s	506.30	Joback Method
dvisc	0.0003580	Pa×s	569.45	Joback Method
dvisc	0.0002371	Pa×s	632.60	Joback Method
dvisc	0.0001693	Pa×s	695.74	Joback Method
hvapt	96.70	kJ/mol	507.00	NIST Webbook
hvapt	98.10	kJ/mol	499.00	NIST Webbook

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C55191634&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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

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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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