1-Ethyl-8-methylnaphthalene

Inchi: InChI=1S/C13H14/c1-3-11-7-5-9-12-8-4-6-10(2)13(11)12/h4-9H,3H2,1-2H3
InchiKey: BWLHVWLTADBTFB-UHFFFAOYSA-N
Formula: C13H14
SMILES: CCc1cccc2cccc(C)c12
Mol. weight [g/mol]: 170.25
CAS: 61886-71-3

Physical Properties

Property code	Value	Unit	Source
chl	-7142.10 ± 1.10	kJ/mol	NIST Webbook
gf	258.38	kJ/mol	Joback Method
hf	98.10 ± 1.50	kJ/mol	NIST Webbook
hfl	26.00 ± 1.00	kJ/mol	NIST Webbook
hfus	19.71	kJ/mol	Joback Method
hvap	72.10	kJ/mol	NIST Webbook
log10ws	-4.55		Crippen Method
logp	3.711		Crippen Method
mcvol	150.810	ml/mol	McGowan Method
pc	2712.67	kPa	Joback Method
tb	552.46	K	Joback Method
tc	779.69	K	Joback Method
tf	320.43	K	Joback Method
vc	0.578	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	342.22	J/mol×K	552.46	Joback Method
cpg	357.89	J/mol×K	590.33	Joback Method
cpg	372.52	J/mol×K	628.20	Joback Method
cpg	386.18	J/mol×K	666.07	Joback Method
cpg	398.93	J/mol×K	703.95	Joback Method
cpg	410.84	J/mol×K	741.82	Joback Method
cpg	421.96	J/mol×K	779.69	Joback Method

dvisc	0.0013320	Pa×s	320.43	Joback Method
dvisc	0.0008996	Pa×s	359.10	Joback Method
dvisc	0.0006558	Pa×s	397.77	Joback Method
dvisc	0.0005056	Pa×s	436.45	Joback Method
dvisc	0.0004066	Pa×s	475.12	Joback Method
dvisc	0.0003379	Pa×s	513.79	Joback Method
dvisc	0.0002882	Pa×s	552.46	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C61886713&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

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase 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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