Pentadecane, 8-butyl-7-pentyl

Inchi: InChI=1S/C25H52/c1-5-9-13-15-19-23-25(21-17-12-8-4)24(20-16-11-7-3)22-18-14-10-6-2
InchiKey: IEMZAEBNMSBTNT-UHFFFAOYSA-N
Formula: C25H52
SMILES: CCCCCCCC(CCCCC)C(CCCCC)CCCCCC
Mol. weight [g/mol]: 352.68

Physical Properties

Property code	Value	Unit	Source
gf	154.74	kJ/mol	Joback Method
hf	-569.89	kJ/mol	Joback Method
hfus	53.46	kJ/mol	Joback Method
hvap	70.47	kJ/mol	Joback Method
log10ws	-9.80		Crippen Method
logp	9.710		Crippen Method
mcvol	363.110	ml/mol	McGowan Method
pc	770.75	kPa	Joback Method
rinpol	2074.00		NIST Webbook
tb	770.52	K	Joback Method
tc	944.69	K	Joback Method
tf	341.51	K	Joback Method
vc	1.423	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1152.28	J/mol×K	770.52	Joback Method
cpg	1175.79	J/mol×K	799.55	Joback Method
cpg	1198.20	J/mol×K	828.58	Joback Method
cpg	1219.55	J/mol×K	857.60	Joback Method
cpg	1239.86	J/mol×K	886.63	Joback Method
cpg	1259.20	J/mol×K	915.66	Joback Method
cpg	1277.59	J/mol×K	944.69	Joback Method
dvisc	0.0037128	Pa×s	341.51	Joback Method
dvisc	0.0009256	Pa×s	413.01	Joback Method

dvisc	0.0003477	Pa×s	484.51	Joback Method
dvisc	0.0001680	Pa×s	556.01	Joback Method
dvisc	0.0000958	Pa×s	627.52	Joback Method
dvisc	0.0000613	Pa×s	699.02	Joback Method
dvisc	0.0000426	Pa×s	770.52	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=R9660&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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