Pentadecane, 7-ethyl

Inchi: InChI=1S/C17H36/c1-4-7-9-11-12-14-16-17(6-3)15-13-10-8-5-2/h17H,4-16H2,1-3H3
InchiKey: PWMLKVOTJKSEJW-UHFFFAOYSA-N
Formula: C17H36
SMILES: CCCCCCCCC(CC)CCCCCC
Mol. weight [g/mol]: 240.47

Physical Properties

Property code	Value	Unit	Source
gf	89.82	kJ/mol	Joback Method
hf	-399.49	kJ/mol	Joback Method
hfus	36.26	kJ/mol	Joback Method
hvap	53.05	kJ/mol	Joback Method
log10ws	-6.70		Crippen Method
logp	6.734		Crippen Method
mcvol	250.390	ml/mol	McGowan Method
pc	1238.09	kPa	Joback Method
rinpol	1617.00		NIST Webbook
tb	587.92	K	Joback Method
tc	748.86	K	Joback Method
tf	266.35	K	Joback Method
vc	0.982	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	667.18	J/mol×K	587.92	Joback Method
cpg	687.14	J/mol×K	614.74	Joback Method
cpg	706.30	J/mol×K	641.57	Joback Method
cpg	724.69	J/mol×K	668.39	Joback Method
cpg	742.33	J/mol×K	695.21	Joback Method
cpg	759.24	J/mol×K	722.04	Joback Method
cpg	775.45	J/mol×K	748.86	Joback Method
dvisc	0.0070198	Pa×s	266.35	Joback Method
dvisc	0.0020606	Pa×s	319.94	Joback Method

dvisc	0.0008598	Pa×s	373.54	Joback Method
dvisc	0.0004468	Pa×s	427.13	Joback Method
dvisc	0.0002686	Pa×s	480.73	Joback Method
dvisc	0.0001789	Pa×s	534.33	Joback Method
dvisc	0.0001283	Pa×s	587.92	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R9602&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

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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