2,4-Dimethyltridecane

Inchi: InChI=1S/C15H32/c1-5-6-7-8-9-10-11-12-15(4)13-14(2)3/h14-15H,5-13H2,1-4H3
InchiKey: JDFJCABQSZLDMZ-UHFFFAOYSA-N
Formula: C15H32
SMILES: CCCCCCCCCC(C)CC(C)C
Mol. weight [g/mol]: 212.41
CAS: 61868-05-1

Physical Properties

Property code	Value	Unit	Source
gf	70.54	kJ/mol	Joback Method
hf	-363.49	kJ/mol	Joback Method
hfus	27.56	kJ/mol	Joback Method
hvap	48.21	kJ/mol	Joback Method
log10ws	-5.62		Crippen Method
logp	5.809		Crippen Method
mcvol	222.210	ml/mol	McGowan Method
pc	1432.63	kPa	Joback Method
tb	541.72	K	Joback Method
tc	706.30	K	Joback Method
tf	227.70 ± 2.00	K	NIST Webbook
vc	0.864	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	558.41	J/mol×K	541.72	Joback Method
cpg	577.82	J/mol×K	569.15	Joback Method
cpg	596.45	J/mol×K	596.58	Joback Method
cpg	614.33	J/mol×K	624.01	Joback Method
cpg	631.47	J/mol×K	651.44	Joback Method
cpg	647.90	J/mol×K	678.87	Joback Method
cpg	663.64	J/mol×K	706.30	Joback Method
dvisc	0.0138942	Pa×s	228.81	Joback Method
dvisc	0.0032300	Pa×s	280.96	Joback Method

dvisc	0.0011857	Pa×s	333.11	Joback Method
dvisc	0.0005709	Pa×s	385.26	Joback Method
dvisc	0.0003272	Pa×s	437.42	Joback Method
dvisc	0.0002112	Pa×s	489.57	Joback Method
dvisc	0.0001483	Pa×s	541.72	Joback Method
hvapt	57.90	kJ/mol	458.00	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C61868051&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
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