Cyclopentane, 1,2-dibutyl-

Inchi: InChI=1S/C13H26/c1-3-5-8-12-10-7-11-13(12)9-6-4-2/h12-13H,3-11H2,1-2H3
InchiKey: XQUKCZAAJLJJPJ-UHFFFAOYSA-N
Formula: C13H26
SMILES: CCCCC1CCCC1CCCC
Mol. weight [g/mol]: 182.35
CAS: 62199-52-4

Physical Properties

Property code	Value	Unit	Source
gf	87.42	kJ/mol	Joback Method
hf	-271.51	kJ/mol	Joback Method
hfus	24.43	kJ/mol	Joback Method
hvap	44.48	kJ/mol	Joback Method
log10ws	-4.68		Crippen Method
logp	4.783		Crippen Method
mcvol	183.170	ml/mol	McGowan Method
pc	1859.51	kPa	Joback Method
rinpol	1402.00		NIST Webbook
rinpol	1402.00		NIST Webbook
tb	507.45	K	Joback Method
tc	690.67	K	Joback Method
tf	242.93	K	Joback Method
vc	0.704	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	444.27	J/mol×K	507.45	Joback Method
cpg	539.12	J/mol×K	660.13	Joback Method
cpg	521.93	J/mol×K	629.60	Joback Method
cpg	503.87	J/mol×K	599.06	Joback Method
cpg	484.93	J/mol×K	568.52	Joback Method
cpg	465.07	J/mol×K	537.99	Joback Method
cpg	555.47	J/mol×K	690.67	Joback Method

dvisc	0.0002859	Pa×s	507.45	Joback Method
dvisc	0.0003579	Pa×s	463.36	Joback Method
dvisc	0.0004697	Pa×s	419.28	Joback Method
dvisc	0.0006571	Pa×s	375.19	Joback Method
dvisc	0.0010051	Pa×s	331.10	Joback Method
dvisc	0.0017519	Pa×s	287.02	Joback Method
dvisc	0.0037361	Pa×s	242.93	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C62199524&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
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