Cyclopentane, 1-butyl-1-methyl

Inchi: InChI=1S/C10H20/c1-3-4-7-10(2)8-5-6-9-10/h3-9H2,1-2H3
InchiKey: DMESIPKWNCPPMH-UHFFFAOYSA-N
Formula: C10H20
SMILES: CCCCC1(C)CCCC1
Mol. weight [g/mol]: 140.27

Physical Properties

Property code	Value	Unit	Source
gf	64.38	kJ/mol	Joback Method
hf	-174.01	kJ/mol	Joback Method
hfus	9.29	kJ/mol	Joback Method
hvap	36.96	kJ/mol	Joback Method
log10ws	-3.66		Crippen Method
logp	3.757		Crippen Method
mcvol	140.900	ml/mol	McGowan Method
pc	2621.78	kPa	Joback Method
rinpol	991.00		NIST Webbook
rinpol	987.00		NIST Webbook
rinpol	982.00		NIST Webbook
rinpol	987.00		NIST Webbook
rinpol	991.00		NIST Webbook
rinpol	982.00		NIST Webbook
tb	443.72	K	Joback Method
tc	641.29	K	Joback Method
tf	237.26	K	Joback Method
vc	0.534	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	301.06	J/mol×K	443.72	Joback Method
cpg	319.97	J/mol×K	476.65	Joback Method
cpg	337.70	J/mol×K	509.58	Joback Method
cpg	354.34	J/mol×K	542.51	Joback Method

cpg	370.00	J/mol×K	575.44	Joback Method
cpg	384.77	J/mol×K	608.36	Joback Method
cpg	398.74	J/mol×K	641.29	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R10589&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
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

Latest version available from:

https://www.chemeo.com/cid/67-450-8/Cyclopentane-1-butyl-1-methyl.pdf

Generated by Cheméo on 2024-10-12 02:48:32.385515418 +0000 UTC m=+3282175.022484667.

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.