Cyclopentanecarboxamide, N,N-didecyl-

Inchi: InChI=1S/C26H51NO/c1-3-5-7-9-11-13-15-19-23-27(26(28)25-21-17-18-22-25)24-20-16-
InchiKey: ZVBMJWQDUPMGOX-UHFFFAOYSA-N
Formula: C26H51NO
SMILES: CCCCCCCCCCN(CCCCCCCCCC)C(=O)C1CCCC1
Mol. weight [g/mol]: 393.69

Physical Properties

Property code	Value	Unit	Source
gf	186.45	kJ/mol	Joback Method
hf	-564.54	kJ/mol	Joback Method
hfus	61.65	kJ/mol	Joback Method
hvap	82.52	kJ/mol	Joback Method
log10ws	-8.70		Crippen Method
logp	8.287		Crippen Method
mcvol	377.890	ml/mol	McGowan Method
pc	829.07	kPa	Joback Method
rinpol	2777.00		NIST Webbook
tb	875.87	K	Joback Method
tc	1072.37	K	Joback Method
tf	476.08	K	Joback Method
vc	1.456	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1290.95	J/mol×K	875.87	Joback Method
cpg	1313.85	J/mol×K	908.62	Joback Method
cpg	1335.44	J/mol×K	941.37	Joback Method
cpg	1355.79	J/mol×K	974.12	Joback Method
cpg	1374.97	J/mol×K	1006.87	Joback Method
cpg	1393.07	J/mol×K	1039.62	Joback Method
cpg	1410.16	J/mol×K	1072.37	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U308617&Units=SI

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