Propanamide, N,N-didecyl-3-cyclopentyl-

Inchi: InChI=1S/C28H55NO/c1-3-5-7-9-11-13-15-19-25-29(26-20-16-14-12-10-8-6-4-2)28(30)24
InchiKey: KWSXWJUPXHUAHC-UHFFFAOYSA-N
Formula: C28H55NO
SMILES: CCCCCCCCCCN(CCCCCCCCCC)C(=O)CCC1CCCC1
Mol. weight [g/mol]: 421.74

Physical Properties

Property code	Value	Unit	Source
gf	203.29	kJ/mol	Joback Method
hf	-605.82	kJ/mol	Joback Method
hfus	66.83	kJ/mol	Joback Method
hvap	86.97	kJ/mol	Joback Method
log10ws	-9.54		Crippen Method
logp	9.067		Crippen Method
mcvol	406.070	ml/mol	McGowan Method
pc	744.48	kPa	Joback Method
rinpol	3138.00		NIST Webbook
rinpol	3138.00		NIST Webbook
tb	921.63	K	Joback Method
tc	1129.65	K	Joback Method
tf	498.62	K	Joback Method
vc	1.569	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1422.09	J/mol×K	921.63	Joback Method
cpg	1446.06	J/mol×K	956.30	Joback Method
cpg	1468.58	J/mol×K	990.97	Joback Method
cpg	1489.75	J/mol×K	1025.64	Joback Method
cpg	1509.67	J/mol×K	1060.31	Joback Method
cpg	1528.43	J/mol×K	1094.98	Joback Method
cpg	1546.14	J/mol×K	1129.65	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=U308288&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