Propanamide, N,N-didecyl-2,2-dimethyl-

Inchi: InChI=1S/C25H51NO/c1-6-8-10-12-14-16-18-20-22-26(24(27)25(3,4)5)23-21-19-17-15-1
InchiKey: GTRUFPPJEWVAGF-UHFFFAOYSA-N
Formula: C25H51NO
SMILES: CCCCCCCCCCN(CCCCCCCCCC)C(=O)C(C)(C)C
Mol. weight [g/mol]: 381.68

Physical Properties

Property code	Value	Unit	Source
gf	144.32	kJ/mol	Joback Method
hf	-613.13	kJ/mol	Joback Method
hfus	57.71	kJ/mol	Joback Method
hvap	78.74	kJ/mol	Joback Method
log10ws	-8.39		Crippen Method
logp	8.143		Crippen Method
mcvol	374.660	ml/mol	McGowan Method
pc	798.89	kPa	Joback Method
rinpol	2605.00		NIST Webbook
tb	834.48	K	Joback Method
tc	1021.77	K	Joback Method
tf	456.33	K	Joback Method
vc	1.448	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1231.64	J/mol×K	834.48	Joback Method
cpg	1253.97	J/mol×K	865.69	Joback Method
cpg	1275.13	J/mol×K	896.91	Joback Method
cpg	1295.19	J/mol×K	928.12	Joback Method
cpg	1314.23	J/mol×K	959.34	Joback Method
cpg	1332.32	J/mol×K	990.55	Joback Method
cpg	1349.53	J/mol×K	1021.77	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=U308132&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