Cyclobutanecarboxamide, N,N-didecyl-

Inchi: InChI=1S/C25H49NO/c1-3-5-7-9-11-13-15-17-22-26(25(27)24-20-19-21-24)23-18-16-14-
InchiKey: UUNSSCXPQDZBGX-UHFFFAOYSA-N
Formula: C25H49NO
SMILES: CCCCCCCCCCN(CCCCCCCCCC)C(=O)C1CCC1
Mol. weight [g/mol]: 379.66

Physical Properties

Property code	Value	Unit	Source
gf	190.13	kJ/mol	Joback Method
hf	-537.74	kJ/mol	Joback Method
hfus	61.16	kJ/mol	Joback Method
hvap	80.12	kJ/mol	Joback Method
log10ws	-8.29		Crippen Method
logp	7.896		Crippen Method
mcvol	363.800	ml/mol	McGowan Method
pc	864.04	kPa	Joback Method
rinpol	2705.00		NIST Webbook
rinpol	2705.00		NIST Webbook
tb	848.72	K	Joback Method
tc	1039.44	K	Joback Method
tf	468.33	K	Joback Method
vc	1.409	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1221.22	J/mol×K	848.72	Joback Method
cpg	1243.60	J/mol×K	880.51	Joback Method
cpg	1264.78	J/mol×K	912.29	Joback Method
cpg	1284.85	J/mol×K	944.08	Joback Method
cpg	1303.87	J/mol×K	975.87	Joback Method
cpg	1321.93	J/mol×K	1007.65	Joback Method
cpg	1339.09	J/mol×K	1039.44	Joback Method

Sources

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=U308605&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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