Cyclohexanecarboxamide, N,N-dioctyl-

Inchi: InChI=1S/C23H45NO/c1-3-5-7-9-11-16-20-24(21-17-12-10-8-6-4-2)23(25)22-18-14-13-15
InchiKey: AVAMOAJVUFSTGN-UHFFFAOYSA-N
Formula: C23H45NO
SMILES: CCCCCCCCN(CCCCCCCC)C(=O)C1CCCCC1
Mol. weight [g/mol]: 351.61

Physical Properties

Property code	Value	Unit	Source
gf	149.09	kJ/mol	Joback Method
hf	-508.78	kJ/mol	Joback Method
hfus	51.78	kJ/mol	Joback Method
hvap	76.01	kJ/mol	Joback Method
log10ws	-7.45		Crippen Method
logp	7.116		Crippen Method
mcvol	335.620	ml/mol	McGowan Method
pc	1001.44	kPa	Joback Method
rinpol	2529.00		NIST Webbook
tb	811.50	K	Joback Method
tc	999.96	K	Joback Method
tf	438.75	K	Joback Method
vc	1.280	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1103.30	J/mol×K	811.50	Joback Method
cpg	1125.40	J/mol×K	842.91	Joback Method
cpg	1146.24	J/mol×K	874.32	Joback Method
cpg	1165.86	J/mol×K	905.73	Joback Method
cpg	1184.33	J/mol×K	937.14	Joback Method
cpg	1201.70	J/mol×K	968.55	Joback Method
cpg	1218.02	J/mol×K	999.96	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U308526&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