Glutaric acid, diamide, N,N'-di(2-octyl)-

Inchi: InChI=1S/C21H42N2O2/c1-5-7-9-11-14-18(3)22-20(24)16-13-17-21(25)23-19(4)15-12-10
InchiKey: LAVRLBDAWQPSSN-UHFFFAOYSA-N
Formula: C21H42N2O2
SMILES: CCCCCCC(C)NC(=O)CCCC(=O)NC(C)CCCCCC
Mol. weight [g/mol]: 354.57

Physical Properties

Property code	Value	Unit	Source
gf	42.00	kJ/mol	Joback Method
hf	-605.55	kJ/mol	Joback Method
hfus	56.50	kJ/mol	Joback Method
hvap	87.93	kJ/mol	Joback Method
log10ws	-6.77		Crippen Method
logp	5.107		Crippen Method
mcvol	329.850	ml/mol	McGowan Method
pc	1063.79	kPa	Joback Method
rinpol	3098.00		NIST Webbook
tb	887.08	K	Joback Method
tc	1086.25	K	Joback Method
tf	501.61	K	Joback Method
vc	1.282	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1097.51	J/mol×K	887.08	Joback Method
cpg	1115.95	J/mol×K	920.27	Joback Method
cpg	1133.23	J/mol×K	953.47	Joback Method
cpg	1149.42	J/mol×K	986.66	Joback Method
cpg	1164.57	J/mol×K	1019.86	Joback Method
cpg	1178.73	J/mol×K	1053.05	Joback Method
cpg	1191.96	J/mol×K	1086.25	Joback Method

Sources

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=U360863&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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