Octadecylamine, N,N-diethyl

Inchi: InChI=1S/C22H47N/c1-4-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23(5-2)6-3/h4-
InchiKey: MNOIOAHRVYPSPE-UHFFFAOYSA-N
Formula: C22H47N
SMILES: CCCCCCCCCCCCCCCCCCN(CC)CC
Mol. weight [g/mol]: 325.62

Physical Properties

Property code	Value	Unit	Source
gf	245.14	kJ/mol	Joback Method
hf	-429.88	kJ/mol	Joback Method
hfus	55.76	kJ/mol	Joback Method
hvap	66.61	kJ/mol	Joback Method
log10ws	-7.60		Crippen Method
logp	7.590		Crippen Method
mcvol	330.820	ml/mol	McGowan Method
pc	900.72	kPa	Joback Method
rinpol	2241.00		NIST Webbook
tb	715.20	K	Joback Method
tc	880.05	K	Joback Method
tf	370.17	K	Joback Method
vc	1.286	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1006.10	J/mol×K	715.20	Joback Method
cpg	1028.15	J/mol×K	742.67	Joback Method
cpg	1049.24	J/mol×K	770.15	Joback Method
cpg	1069.38	J/mol×K	797.62	Joback Method
cpg	1088.62	J/mol×K	825.10	Joback Method
cpg	1107.00	J/mol×K	852.57	Joback Method
cpg	1124.55	J/mol×K	880.05	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R543503&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