Octanamide, N,N-didecyl-

Inchi: InChI=1S/C28H57NO/c1-4-7-10-13-15-17-20-23-26-29(28(30)25-22-19-12-9-6-3)27-24-2
InchiKey: PDNRWIMUJLEXOA-UHFFFAOYSA-N
Formula: C28H57NO
SMILES: CCCCCCCCCCN(CCCCCCCCCC)C(=O)CCCCCCC
Mol. weight [g/mol]: 423.76

Physical Properties

Property code	Value	Unit	Source
gf	166.74	kJ/mol	Joback Method
hf	-666.30	kJ/mol	Joback Method
hfus	72.90	kJ/mol	Joback Method
hvap	86.71	kJ/mol	Joback Method
log10ws	-9.89		Crippen Method
logp	9.457		Crippen Method
mcvol	416.930	ml/mol	McGowan Method
pc	676.41	kPa	Joback Method
rinpol	3018.00		NIST Webbook
tb	906.35	K	Joback Method
tc	1116.00	K	Joback Method
tf	487.72	K	Joback Method
vc	1.627	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1427.42	J/mol×K	906.35	Joback Method
cpg	1452.34	J/mol×K	941.29	Joback Method
cpg	1475.78	J/mol×K	976.23	Joback Method
cpg	1497.83	J/mol×K	1011.18	Joback Method
cpg	1518.59	J/mol×K	1046.12	Joback Method
cpg	1538.15	J/mol×K	1081.06	Joback Method
cpg	1556.59	J/mol×K	1116.00	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=U308448&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