Octanamide, N-heptyl-N-octyl-

Inchi: InChI=1S/C23H47NO/c1-4-7-10-13-16-19-22-24(21-18-15-12-9-6-3)23(25)20-17-14-11-8
InchiKey: VDKVPXDTTYCOCO-UHFFFAOYSA-N
Formula: C23H47NO
SMILES: CCCCCCCCN(CCCCCCC)C(=O)CCCCCCC
Mol. weight [g/mol]: 353.63

Physical Properties

Property code	Value	Unit	Source
gf	124.64	kJ/mol	Joback Method
hf	-563.10	kJ/mol	Joback Method
hfus	59.95	kJ/mol	Joback Method
hvap	75.58	kJ/mol	Joback Method
log10ws	-7.80		Crippen Method
logp	7.506		Crippen Method
mcvol	346.480	ml/mol	McGowan Method
pc	883.14	kPa	Joback Method
rinpol	2493.00		NIST Webbook
tb	791.95	K	Joback Method
tc	970.38	K	Joback Method
tf	431.37	K	Joback Method
vc	1.347	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1103.84	J/mol×K	791.95	Joback Method
cpg	1125.27	J/mol×K	821.69	Joback Method
cpg	1145.63	J/mol×K	851.43	Joback Method
cpg	1164.98	J/mol×K	881.17	Joback Method
cpg	1183.34	J/mol×K	910.91	Joback Method
cpg	1200.78	J/mol×K	940.65	Joback Method
cpg	1217.32	J/mol×K	970.38	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=U308445&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