Eicosanamide-

Other names: icosanamide
Inchi: InChI=1S/C20H41NO/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20(21)22/h2-19
InchiKey: OOCSVLHOTKHEFZ-UHFFFAOYSA-N
Formula: C20H41NO
SMILES: CCCCCCCCCCCCCCCCCCCC(N)=O
Mol. weight [g/mol]: 311.55
CAS: 51360-63-5

Physical Properties

Property code	Value	Unit	Source
gf	55.05	kJ/mol	Joback Method
hf	-534.92	kJ/mol	Joback Method
hfus	54.35	kJ/mol	Joback Method
hvap	77.50	kJ/mol	Joback Method
log10ws	-7.40		Crippen Method
logp	6.513		Crippen Method
mcvol	304.210	ml/mol	McGowan Method
pc	1097.90	kPa	Joback Method
rinpol	2540.00		NIST Webbook
tb	783.40	K	Joback Method
tc	964.23	K	Joback Method
tf	448.35	K	Joback Method
vc	1.190	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	958.28	J/mol×K	783.40	Joback Method
cpg	977.46	J/mol×K	813.54	Joback Method
cpg	995.67	J/mol×K	843.68	Joback Method
cpg	1012.96	J/mol×K	873.81	Joback Method
cpg	1029.36	J/mol×K	903.95	Joback Method
cpg	1044.91	J/mol×K	934.09	Joback Method
cpg	1059.65	J/mol×K	964.23	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=C51360635&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