Nonanamide

Other names:	Nonamide
	Pelargonamide
	nonan-1-amide
Inchi:	InChI=1S/C9H19NO/c1-2-3-4-5-6-7-8-9(10)11/h2-8H2,1H3,(H2,10,11)
InchiKey:	GHLZUHZBBNDWHW-UHFFFAOYSA-N
Formula:	C9H19NO
SMILES:	CCCCCCCCC(N)=O
Mol. weight [g/mol]:	157.25
CAS:	1120-07-6

Physical Properties

Property code	Value	Unit	Source
gf	-37.57	kJ/mol	Joback Method
hf	-307.88	kJ/mol	Joback Method
hfus	25.86	kJ/mol	Joback Method
hvap	53.02	kJ/mol	Joback Method
log10ws	-2.80		Crippen Method
logp	2.222		Crippen Method
mcvol	149.220	ml/mol	McGowan Method
pc	2597.78	kPa	Joback Method
tb	531.72	K	Joback Method
tc	716.76	K	Joback Method
tf	371.40 ± 0.70	K	NIST Webbook
vc	0.575	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	359.27	J/mol×K	531.72	Joback Method
cpg	372.96	J/mol×K	562.56	Joback Method
cpg	386.03	J/mol×K	593.40	Joback Method
cpg	398.50	J/mol×K	624.24	Joback Method
cpg	410.38	J/mol×K	655.08	Joback Method
cpg	421.70	J/mol×K	685.92	Joback Method

cpg	432.47	J/mol×K	716.76	Joback Method
hsubt	114.60 ± 3.30	kJ/mol	361.50	NIST Webbook

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=C1120076&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
hsubt:	Enthalpy of sublimation at a given temperature
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume