N,N-Diethylpropionamide

Other names:	Diethylpropionamide
	N,N-Diethylpropanamide
	Propanamide, N,N-diethyl-
	Propionamide, N,N-diethyl-
	Diethylamide of propionic acid
Inchi:	InChI=1S/C7H15NO/c1-4-7(9)8(5-2)6-3/h4-6H2,1-3H3
InchiKey:	YKOQQFDCCBKROY-UHFFFAOYSA-N
Formula:	C7H15NO
SMILES:	CCC(=O)N(CC)CC
Mol. weight [g/mol]:	129.20
CAS:	1114-51-8

Physical Properties

Property code	Value	Unit	Source
gf	-10.08	kJ/mol	Joback Method
hf	-232.86	kJ/mol	Joback Method
hfus	18.51	kJ/mol	Joback Method
hvap	39.97	kJ/mol	Joback Method
log10ws	-1.10		Crippen Method
logp	1.265		Crippen Method
mcvol	121.040	ml/mol	McGowan Method
pc	2989.32	kPa	Joback Method
tb	425.87	K	Joback Method
tc	600.81	K	Joback Method
tf	251.05	K	Joback Method
vc	0.452	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	244.86	J/mol×K	425.87	Joback Method
cpg	257.29	J/mol×K	455.03	Joback Method
cpg	269.17	J/mol×K	484.18	Joback Method
cpg	280.54	J/mol×K	513.34	Joback Method

cpg	291.41	J/mol×K	542.50	Joback Method
cpg	301.79	J/mol×K	571.65	Joback Method
cpg	311.69	J/mol×K	600.81	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	350.20	K	1.60	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=C1114518&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
tb: Normal Boiling Point Temperature
tbrp: Boiling point at reduced pressure
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume