

Acetamide, N,N-dipropyl-

Other names:	N,N-Dipropylacetamide
Inchi:	InChI=1S/C8H17NO/c1-4-6-9(7-5-2)8(3)10/h4-7H2,1-3H3
InchiKey:	IFTIBNDWGNRYLS-UHFFFAOYSA-N
Formula:	C8H17NO
SMILES:	CCCN(CCC)C(C)=O
Mol. weight [g/mol]:	143.23
CAS:	1116-24-1

Physical Properties

Property code	Value	Unit	Source
gf	-1.66	kJ/mol	Joback Method
hf	-253.50	kJ/mol	Joback Method
hfus	21.10	kJ/mol	Joback Method
hvap	42.19	kJ/mol	Joback Method
log10ws	-1.52		Crippen Method
logp	1.655		Crippen Method
mcvol	135.130	ml/mol	McGowan Method
pc	2698.60	kPa	Joback Method
tb	448.75	K	Joback Method
tc	622.49	K	Joback Method
tf	262.32	K	Joback Method
vc	0.507	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	286.50	J/mol×K	448.75	Joback Method
cpg	299.93	J/mol×K	477.71	Joback Method
cpg	312.79	J/mol×K	506.66	Joback Method
cpg	325.09	J/mol×K	535.62	Joback Method
cpg	336.84	J/mol×K	564.58	Joback Method
cpg	348.07	J/mol×K	593.54	Joback Method
cpg	358.78	J/mol×K	622.49	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.64196e+01
Coeff. B	-4.70721e+03
Coeff. C	-7.53270e+01
Temperature range (K), min.	367.12
Temperature range (K), max.	499.09

Sources

The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=C1116241&Units=SI

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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume

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