

Acetamide, N,N-bis(1-methylethyl)-

Other names:	Acetamide, N,N-diisopropyl- N,N-Diisopropylacetamide
Inchi:	InChI=1S/C8H17NO/c1-6(2)9(7(3)4)8(5)10/h6-7H,1-5H3
InchiKey:	ZSUUCLLIOSUIFH-UHFFFAOYSA-N
Formula:	C8H17NO
SMILES:	CC(=O)N(C(C)C)C(C)C
Mol. weight [g/mol]:	143.23
CAS:	759-22-8

Physical Properties

Property code	Value	Unit	Source
gf	-6.54	kJ/mol	Joback Method
hf	-264.06	kJ/mol	Joback Method
hfus	14.05	kJ/mol	Joback Method
hvap	41.42	kJ/mol	Joback Method
log10ws	-1.74		Crippen Method
logp	1.652		Crippen Method
mvol	135.130	ml/mol	McGowan Method
pc	2744.03	kPa	Joback Method
rinpol	1060.00		NIST Webbook
tb	469.20	K	NIST Webbook
tc	629.35	K	Joback Method
tf	232.32	K	Joback Method
vc	0.495	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	286.65	J/molxK	447.87	Joback Method
cpg	300.85	J/molxK	478.12	Joback Method
cpg	314.40	J/molxK	508.36	Joback Method
cpg	327.33	J/molxK	538.61	Joback Method
cpg	339.65	J/molxK	568.86	Joback Method
cpg	351.38	J/molxK	599.11	Joback Method

cpg

362.55

J/mol×K

629.35

Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.55428e+01
Coeff. B	-4.34388e+03
Coeff. C	-7.15740e+01
Temperature range (K), min.	356.32
Temperature range (K), max.	496.14

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=C759228&Units=SI>

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

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
rinpola:	Non-polar retention indices

tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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