

Piperidine, 3,5-dimethyl-

Other names:	3,5-Dimethylpiperidine
Inchi:	InChI=1S/C7H15N/c1-6-3-7(2)5-8-4-6/h6-8H,3-5H2,1-2H3
InchiKey:	IDWRJRPUIXRFRX-UHFFFAOYSA-N
Formula:	C7H15N
SMILES:	CC1CNCC(C)C1
Mol. weight [g/mol]:	113.20
CAS:	35794-11-7

Physical Properties

Property code	Value	Unit	Source
gf	112.51	kJ/mol	Joback Method
hf	-116.02	kJ/mol	Joback Method
hfus	16.38	kJ/mol	Joback Method
hvap	49.10 ± 0.60	kJ/mol	NIST Webbook
log10ws	-1.35		Crippen Method
logp	1.252		Crippen Method
mcvol	108.610	ml/mol	McGowan Method
pc	3488.88	kPa	Joback Method
rinpol	889.00		NIST Webbook
tb	417.20	K	NIST Webbook
tc	634.06	K	Joback Method
tf	276.82	K	Joback Method
vc	0.397	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	215.41	J/molxK	422.99	Joback Method
cpg	232.27	J/molxK	458.17	Joback Method
cpg	248.40	J/molxK	493.35	Joback Method
cpg	263.82	J/molxK	528.52	Joback Method
cpg	278.51	J/molxK	563.70	Joback Method
cpg	292.50	J/molxK	598.88	Joback Method
cpg	305.78	J/molxK	634.06	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.55255e+01
Coeff. B	-3.79579e+03
Coeff. C	-5.71180e+01
Temperature range (K), min.	306.22
Temperature range (K), max.	428.74

Sources

The Yaws Handbook of Vapor

Pressure:
Crippen Method:

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>

<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=C35794117&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
hvac:	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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature

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

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