

# Methylene-bis(N,N-dimethylurea)

<b>Inchi:</b>	InChI=1S/C7H16N4O2/c1-10(2)6(12)8-5-9-7(13)11(3)4/h5H2,1-4H3,(H,8,12)(H,9,13)
<b>InchiKey:</b>	VWZXLQBVPNQWPX-UHFFFAOYSA-N
<b>Formula:</b>	C7H16N4O2
<b>SMILES:</b>	CN(C)C(=O)NCNC(=O)N(C)C
<b>Mol. weight [g/mol]:</b>	188.23
<b>CAS:</b>	86290-98-4

## Physical Properties

Property code	Value	Unit	Source
chs	-4493.50 ± 3.80	kJ/mol	NIST Webbook
gf	150.56	kJ/mol	Joback Method
hf	-170.97	kJ/mol	Joback Method
hfs	-547.70 ± 3.80	kJ/mol	NIST Webbook
hfus	33.32	kJ/mol	Joback Method
hvap	61.63	kJ/mol	Joback Method
log10ws	-0.27		Crippen Method
logp	-0.514		Crippen Method
mcvol	152.550	ml/mol	McGowan Method
pc	3295.37	kPa	Joback Method
tb	592.52	K	Joback Method
tc	779.66	K	Joback Method
tf	423.00 ± 1.00	K	NIST Webbook
vc	0.545	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	393.48	J/molxK	592.52	Joback Method
cpg	405.91	J/molxK	623.71	Joback Method
cpg	417.64	J/molxK	654.90	Joback Method
cpg	428.69	J/molxK	686.09	Joback Method
cpg	439.09	J/molxK	717.28	Joback Method
cpg	448.87	J/molxK	748.47	Joback Method
cpg	458.05	J/molxK	779.66	Joback Method

# Sources

<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C86290984&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C86290984&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>

# Legend

<b>chs:</b>	Standard solid enthalpy of combustion
<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfs:</b>	Solid phase enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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