

# Urea, N,N'-bis(3-methylphenyl)-

<b>Other names:</b>	Carbanilide, 3,3'-dimethyl- Urea, 1,3-di(3-tolyl)- N,N'-(Di-m-methylphenyl)urea
<b>Inchi:</b>	InChI=1S/C15H16N2O/c1-11-5-3-7-13(9-11)16-15(18)17-14-8-4-6-12(2)10-14/h3-10H,1-
<b>InchiKey:</b>	UPUMJVLEADOLKF-UHFFFAOYSA-N
<b>Formula:</b>	C15H16N2O
<b>SMILES:</b>	<chem>Cc1cccc(NC(=O)Nc2cccc(C)c2)c1</chem>
<b>Mol. weight [g/mol]:</b>	240.30
<b>CAS:</b>	620-50-8

## Physical Properties

Property code	Value	Unit	Source
gf	330.84	kJ/mol	Joback Method
hf	91.55	kJ/mol	Joback Method
hfus	33.71	kJ/mol	Joback Method
hvap	74.48	kJ/mol	Joback Method
log10ws	-4.42		Crippen Method
logp	3.947		Crippen Method
mcvol	196.220	ml/mol	McGowan Method
pc	2665.27	kPa	Joback Method
tb	760.13	K	Joback Method
tc	997.79	K	Joback Method
tf	491.94	K	Joback Method
vc	0.736	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	542.83	J/molxK	760.13	Joback Method
cpg	557.06	J/molxK	799.74	Joback Method
cpg	570.15	J/molxK	839.35	Joback Method
cpg	582.16	J/molxK	878.96	Joback Method
cpg	593.16	J/molxK	918.57	Joback Method
cpg	603.20	J/molxK	958.18	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C620508&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C620508&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>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>

## Legend

<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>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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