Urea, N-(2-methylphenyl)-N'-phenyl-

Other names: Carbanilide, 2-methyl-
Inchi: InChI=1S/C14H14N2O/c1-11-7-5-6-10-13(11)16-14(17)15-12-8-3-2-4-9-12/h2-10H,1H3,(
InchiKey: UUIQRZTUWPSQKW-UHFFFAOYSA-N
Formula: C14H14N2O
SMILES: Cc1ccccc1NC(=O)Nc1ccccc1
Mol. weight [g/mol]: 226.27
CAS: 13140-49-3

Physical Properties

Property code	Value	Unit	Source
gf	332.05	kJ/mol	Joback Method
hf	123.66	kJ/mol	Joback Method
hfus	31.51	kJ/mol	Joback Method
hvap	71.59	kJ/mol	Joback Method
log10ws	-3.95		Crippen Method
logp	3.639		Crippen Method
mcvol	182.130	ml/mol	McGowan Method
pc	2999.15	kPa	Joback Method
tb	732.27	K	Joback Method
tc	973.85	K	Joback Method
tf	468.15	K	Joback Method
vc	0.679	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	491.01	J/mol×K	732.27	Joback Method
cpg	505.03	J/mol×K	772.53	Joback Method
cpg	517.87	J/mol×K	812.80	Joback Method
cpg	529.61	J/mol×K	853.06	Joback Method
cpg	540.32	J/mol×K	893.32	Joback Method
cpg	550.08	J/mol×K	933.59	Joback Method
cpg	558.97	J/mol×K	973.85	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13140493&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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