Urea, N,N-dibutyl-N'-phenyl-

Other names: Urea, 1,1-dibutyl-3-phenyl-
1,1-Dibutyl-3-phenylurea
Inchi: InChI=1S/C15H24N2O/c1-3-5-12-17(13-6-4-2)15(18)16-14-10-8-7-9-11-14/h7-11H,3-6,1
InchiKey: VLAGNIMOLLTGGE-UHFFFAOYSA-N
Formula: C15H24N2O
SMILES: CCCCN(CCCC)C(=O)Nc1ccccc1
Mol. weight [g/mol]: 248.36
CAS: 2589-21-1

Physical Properties

Property code	Value	Unit	Source
gf	259.08	kJ/mol	Joback Method
hf	-107.98	kJ/mol	Joback Method
hfus	38.37	kJ/mol	Joback Method
hvap	66.48	kJ/mol	Joback Method
log10ws	-4.15		Crippen Method
logp	4.121		Crippen Method
mcvol	219.980	ml/mol	McGowan Method
pc	1970.05	kPa	Joback Method
tb	685.76	K	Joback Method
tc	883.34	K	Joback Method
tf	420.29	K	Joback Method
vc	0.827	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	615.04	J/mol×K	685.76	Joback Method
cpg	631.77	J/mol×K	718.69	Joback Method
cpg	647.50	J/mol×K	751.62	Joback Method
cpg	662.26	J/mol×K	784.55	Joback Method
cpg	676.11	J/mol×K	817.48	Joback Method
cpg	689.10	J/mol×K	850.41	Joback Method
cpg	701.28	J/mol×K	883.34	Joback Method

Sources

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=C2589211&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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

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