Urea, N,N-diphenyl-N'-butyl-

Inchi: InChI=1S/C17H20N2O/c1-2-3-14-18-17(20)19(15-10-6-4-7-11-15)16-12-8-5-9-13-16/h4-1
InchiKey: WOPDLBNNBJCXFA-UHFFFAOYSA-N
Formula: C17H20N2O
SMILES: CCCCNC(=O)N(c1ccccc1)c1ccccc1
Mol. weight [g/mol]: 268.35

Physical Properties

Property code	Value	Unit	Source
gf	388.33	kJ/mol	Joback Method
hf	87.27	kJ/mol	Joback Method
hfus	37.59	kJ/mol	Joback Method
hvap	73.21	kJ/mol	Joback Method
log10ws	-4.79		Crippen Method
logp	4.334		Crippen Method
mcvol	224.400	ml/mol	McGowan Method
pc	2237.64	kPa	Joback Method
rinpol	2277.00		NIST Webbook
rinpol	2277.00		NIST Webbook
tb	758.20	K	Joback Method
tc	984.87	K	Joback Method
tf	469.25	K	Joback Method
vc	0.831	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	640.03	J/mol×K	758.20	Joback Method
cpg	656.03	J/mol×K	795.98	Joback Method
cpg	670.78	J/mol×K	833.76	Joback Method
cpg	684.39	J/mol×K	871.54	Joback Method
cpg	696.93	J/mol×K	909.31	Joback Method
cpg	708.51	J/mol×K	947.09	Joback Method
cpg	719.20	J/mol×K	984.87	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U407549&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume