Urea, N,N-diphenyl-N'-isobutyl-

Inchi: InChI=1S/C17H20N2O/c1-14(2)13-18-17(20)19(15-9-5-3-6-10-15)16-11-7-4-8-12-16/h3-1
InchiKey: FVFRCPBLTJAAQY-UHFFFAOYSA-N
Formula: C17H20N2O
SMILES: CC(C)CNC(=O)N(c1ccccc1)c1ccccc1
Mol. weight [g/mol]: 268.35

Physical Properties

Property code	Value	Unit	Source
gf	385.89	kJ/mol	Joback Method
hf	81.99	kJ/mol	Joback Method
hfus	34.06	kJ/mol	Joback Method
hvap	72.83	kJ/mol	Joback Method
log10ws	-4.55		Crippen Method
logp	4.190		Crippen Method
mcvol	224.400	ml/mol	McGowan Method
pc	2254.67	kPa	Joback Method
rinpol	2222.00		NIST Webbook
rinpol	2222.00		NIST Webbook
tb	757.76	K	Joback Method
tc	988.43	K	Joback Method
tf	454.25	K	Joback Method
vc	0.825	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	640.58	J/mol×K	757.76	Joback Method
cpg	656.87	J/mol×K	796.20	Joback Method
cpg	671.86	J/mol×K	834.65	Joback Method
cpg	685.64	J/mol×K	873.09	Joback Method
cpg	698.32	J/mol×K	911.54	Joback Method
cpg	709.98	J/mol×K	949.98	Joback Method
cpg	720.73	J/mol×K	988.43	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U407548&Units=SI

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