Ethyl N,N-diphenylcarbamate

Other names:	N,N-Diphenylurethane
	N,N-Diphenylethyl carbamate
	Carbamic acid, diphenyl-, ethyl ester
	Diphenylcarbamic acid, ethyl ester
	Diphenylurethane
	Ethyl diphenylcarbamate
	N,N-Diphenyl carbamic acid, ethyl ester
Inchi:	InChI=1S/C15H15NO2/c1-2-18-15(17)16(13-9-5-3-6-10-13)14-11-7-4-8-12-14/h3-12H,2H
InchiKey:	HKTSLDUAGCAISP-UHFFFAOYSA-N
Formula:	C15H15NO2
SMILES:	CCOC(=O)N(c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	241.29
CAS:	603-52-1

Physical Properties

Property code	Value	Unit	Source
chs	-7785.21	kJ/mol	NIST Webbook
chs	-7740.40	kJ/mol	NIST Webbook
chs	-7765.50 ± 7.90	kJ/mol	NIST Webbook
gf	177.10	kJ/mol	Joback Method
hf	-57.14	kJ/mol	Joback Method
hfs	-290.00	kJ/mol	NIST Webbook
hfs	-261.20	kJ/mol	NIST Webbook
hfs	-281.00 ± 7.90	kJ/mol	NIST Webbook
hfus	28.50	kJ/mol	Joback Method
hvap	64.73	kJ/mol	Joback Method
log10ws	-3.85		Crippen Method
logp	3.981		Crippen Method
mcvol	192.110	ml/mol	McGowan Method
pc	2624.46	kPa	Joback Method
tb	633.20	K	NIST Webbook
tc	918.54	K	Joback Method
tf	416.28	K	Joback Method
vc	0.702	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	505.22	J/mol×K	684.69	Joback Method
cpg	521.19	J/mol×K	723.67	Joback Method
cpg	535.88	J/mol×K	762.64	Joback Method
cpg	549.35	J/mol×K	801.62	Joback Method
cpg	561.69	J/mol×K	840.59	Joback Method
cpg	572.95	J/mol×K	879.57	Joback Method
cpg	583.21	J/mol×K	918.54	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=C603521&Units=SI

Legend

chs: Standard solid enthalpy of combustion
cpg: Ideal gas heat capacity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfs: Solid phase 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