5-ethylhydantoin

Inchi: InChI=1S/C5H8N2O2/c1-2-3-4(8)7-5(9)6-3/h3H,2H2,1H3,(H2,6,7,8,9)
InchiKey: RSBRXBZGVHQUJK-UHFFFAOYSA-N
Formula: C5H8N2O2
SMILES: CCC1NC(=O)NC1=O
Mol. weight [g/mol]: 128.13

Physical Properties

Property code	Value	Unit	Source
gf	-41.99	kJ/mol	Joback Method
hf	-285.83	kJ/mol	Joback Method
hfus	20.84	kJ/mol	Joback Method
hvap	48.99	kJ/mol	Joback Method
log10ws	-0.06		Aqueous Solubility Prediction Method
logp	-0.396		Crippen Method
mcvol	93.550	ml/mol	McGowan Method
pc	5116.65	kPa	Joback Method
tb	561.82	K	Joback Method
tc	812.89	K	Joback Method
tf	503.51	K	Joback Method
vc	0.344	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	220.96	J/mol×K	561.82	Joback Method
cpg	233.99	J/mol×K	603.67	Joback Method
cpg	246.55	J/mol×K	645.51	Joback Method
cpg	258.54	J/mol×K	687.36	Joback Method
cpg	269.88	J/mol×K	729.20	Joback Method
cpg	280.47	J/mol×K	771.05	Joback Method
cpg	290.23	J/mol×K	812.89	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
Aqueous Solubility Prediction Method:	http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa

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