Acetamide, N-(4-ethoxy-2-nitrophenyl)-

Other names:	p-Acetophenetide, 2'-nitro-
	p-Acetophenetidide, 2'-nitro-
	4-Acetamido-3-nitrophenetole
	4-Ethoxy-2-nitro acetanilide
	N-(4-ethoxy-2-nitrophenyl)acetamide
Inchi:	InChI=1S/C10H12N2O4/c1-3-16-8-4-5-9(11-7(2)13)10(6-8)12(14)15/h4-6H,3H2,1-2H3,(H
InchiKey:	OWIVDQQSRJCDPQ-UHFFFAOYSA-N
Formula:	C10H12N2O4
SMILES:	CCOc1ccc(NC(C)=O)c([N+](=O)[O-])c1
Mol. weight [g/mol]:	224.21
CAS:	885-81-4

Physical Properties

Property code	Value	Unit	Source
gf	17.49	kJ/mol	Joback Method
hf	-238.23	kJ/mol	Joback Method
hfus	34.17	kJ/mol	Joback Method
hvap	73.64	kJ/mol	Joback Method
log10ws	-2.86		Crippen Method
logp	1.952		Crippen Method
mcvol	162.840	ml/mol	McGowan Method
pc	3065.95	kPa	Joback Method
tb	743.14	K	Joback Method
tc	978.78	K	Joback Method
tf	522.35	K	Joback Method
vc	0.628	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	441.62	J/mol×K	743.14	Joback Method
cpg	453.20	J/mol×K	782.41	Joback Method
cpg	463.87	J/mol×K	821.69	Joback Method
cpg	473.64	J/mol×K	860.96	Joback Method

cpg	482.53	J/mol×K	900.23	Joback Method
cpg	490.55	J/mol×K	939.50	Joback Method
cpg	497.74	J/mol×K	978.78	Joback Method

Sources

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=C885814&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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