Butanamide, N-1-naphthalenyl-3-oxo-

Other names: Acetoacet «alpha»-naphthylamide
Acetoacetamide, N-1-naphthyl-
N-1-Naphthylacetoacetamide
Acetamide, N-1-naphthylaceto-
N-1-naphthyl-3-oxobutyramide
Inchi: InChI=1S/C14H13NO2/c1-10(16)9-14(17)15-13-8-4-6-11-5-2-3-7-12(11)13/h2-8H,9H2,1H
InchiKey: LKVXQCKDIYHFGZ-UHFFFAOYSA-N
Formula: C14H13NO2
SMILES: CC(=O)CC(=O)Nc1cccc2ccccc12
Mol. weight [g/mol]: 227.26
CAS: 86-83-9

Physical Properties

Property code	Value	Unit	Source
gf	107.98	kJ/mol	Joback Method
hf	-87.85	kJ/mol	Joback Method
hfus	30.98	kJ/mol	Joback Method
hvap	71.26	kJ/mol	Joback Method
log10ws	-3.60		Crippen Method
logp	2.757		Crippen Method
mcvol	178.020	ml/mol	McGowan Method
pc	2884.30	kPa	Joback Method
tb	728.27	K	Joback Method
tc	961.52	K	Joback Method
tf	471.70	K	Joback Method
vc	0.680	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	473.12	J/mol×K	728.27	Joback Method
cpg	485.80	J/mol×K	767.14	Joback Method
cpg	497.50	J/mol×K	806.02	Joback Method
cpg	508.31	J/mol×K	844.89	Joback Method

cpg	518.31	J/mol×K	883.77	Joback Method
cpg	527.58	J/mol×K	922.64	Joback Method
cpg	536.21	J/mol×K	961.52	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=C86839&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume