Butanamide, N,N-dibutyl-

Other names: Butyramide, N,N-dibutyl-
Inchi: InChI=1S/C12H25NO/c1-4-7-10-13(11-8-5-2)12(14)9-6-3/h4-11H2,1-3H3
InchiKey: YIGDAUZSYXKBHT-UHFFFAOYSA-N
Formula: C12H25NO
SMILES: CCCCN(CCCC)C(=O)CCC
Mol. weight [g/mol]: 199.33
CAS: 14287-95-7

Physical Properties

Property code	Value	Unit	Source
gf	32.02	kJ/mol	Joback Method
hf	-336.06	kJ/mol	Joback Method
hfus	31.46	kJ/mol	Joback Method
hvap	51.09	kJ/mol	Joback Method
log10ws	-3.19		Crippen Method
logp	3.215		Crippen Method
mcvol	191.490	ml/mol	McGowan Method
pc	1875.65	kPa	Joback Method
rinpol	1437.00		NIST Webbook
tb	540.27	K	Joback Method
tc	709.01	K	Joback Method
tf	307.40	K	Joback Method
vc	0.732	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	472.67	J/mol×K	540.27	Joback Method
cpg	489.15	J/mol×K	568.39	Joback Method
cpg	504.91	J/mol×K	596.52	Joback Method
cpg	519.98	J/mol×K	624.64	Joback Method
cpg	534.38	J/mol×K	652.77	Joback Method
cpg	548.14	J/mol×K	680.89	Joback Method
cpg	561.27	J/mol×K	709.01	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=C14287957&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