Acetamide, N-butyl-N-decyl-

Inchi: InChI=1S/C16H33NO/c1-4-6-8-9-10-11-12-13-15-17(16(3)18)14-7-5-2/h4-15H2,1-3H3
InchiKey: ZORMRCIBUGWSIU-UHFFFAOYSA-N
Formula: C16H33NO
SMILES: CCCCCCCCCCN(CCCC)C(C)=O
Mol. weight [g/mol]: 255.44

Physical Properties

Property code	Value	Unit	Source
gf	65.70	kJ/mol	Joback Method
hf	-418.62	kJ/mol	Joback Method
hfus	41.82	kJ/mol	Joback Method
hvap	60.00	kJ/mol	Joback Method
log10ws	-4.87		Crippen Method
logp	4.776		Crippen Method
mcvol	247.850	ml/mol	McGowan Method
pc	1378.88	kPa	Joback Method
rinpol	1785.00		NIST Webbook
rinpol	1785.00		NIST Webbook
tb	631.79	K	Joback Method
tc	798.03	K	Joback Method
tf	352.48	K	Joback Method
vc	0.956	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	685.29	J/mol×K	631.79	Joback Method
cpg	703.72	J/mol×K	659.50	Joback Method
cpg	721.33	J/mol×K	687.20	Joback Method
cpg	738.15	J/mol×K	714.91	Joback Method
cpg	754.21	J/mol×K	742.62	Joback Method
cpg	769.54	J/mol×K	770.33	Joback Method
cpg	784.16	J/mol×K	798.03	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=U415748&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