

Sarcosine, N-valeryl-, butyl ester

Inchi:	InChI=1S/C12H23NO3/c1-4-6-8-11(14)13(3)10-12(15)16-9-7-5-2/h4-10H2,1-3H3
InchiKey:	LVFSYISKIGGXIX-UHFFFAOYSA-N
Formula:	C12H23NO3
SMILES:	CCCCOC(=O)CN(C)C(=O)CCCC
Mol. weight [g/mol]:	229.32

Physical Properties

Property code	Value	Unit	Source
gf	-201.90	kJ/mol	Joback Method
hf	-580.86	kJ/mol	Joback Method
hfus	34.24	kJ/mol	Joback Method
hvap	60.25	kJ/mol	Joback Method
log10ws	-2.05		Crippen Method
logp	1.978		Crippen Method
mvol	198.930	ml/mol	McGowan Method
pc	1952.68	kPa	Joback Method
rinpol	1712.00		NIST Webbook
rinpol	1712.00		NIST Webbook
tb	616.56	K	Joback Method
tc	792.98	K	Joback Method
tf	379.56	K	Joback Method
vc	0.755	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	526.69	J/mol×K	616.56	Joback Method
cpg	541.82	J/mol×K	645.96	Joback Method
cpg	556.25	J/mol×K	675.37	Joback Method
cpg	569.98	J/mol×K	704.77	Joback Method
cpg	583.05	J/mol×K	734.17	Joback Method
cpg	595.45	J/mol×K	763.58	Joback Method
cpg	607.21	J/mol×K	792.98	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U321561&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.cheméo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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
hvp:	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
rinp:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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