Sarcosine, N-(3-methylbut-2-enoyl)-, decyl ester

Inchi: InChI=1S/C18H33NO3/c1-5-6-7-8-9-10-11-12-13-22-18(21)15-19(4)17(20)14-16(2)3/h14
InchiKey: FZIHZZVHLQFWHS-UHFFFAOYSA-N
Formula: C18H33NO3
SMILES: CCCCCCCCCCOC(=O)CN(C)C(=O)C=C(C)C
Mol. weight [g/mol]: 311.46

Physical Properties

Property code	Value	Unit	Source
gf	-79.71	kJ/mol	Joback Method
hf	-597.27	kJ/mol	Joback Method
hfus	48.67	kJ/mol	Joback Method
hvap	73.64	kJ/mol	Joback Method
log10ws	-4.42		Crippen Method
logp	4.095		Crippen Method
mcvol	279.170	ml/mol	McGowan Method
pc	1292.07	kPa	Joback Method
rinpol	2302.00		NIST Webbook
rinpol	2302.00		NIST Webbook
tb	757.88	K	Joback Method
tc	940.02	K	Joback Method
tf	428.14	K	Joback Method
vc	1.073	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	836.42	J/mol×K	757.88	Joback Method
cpg	853.79	J/mol×K	788.24	Joback Method
cpg	870.25	J/mol×K	818.59	Joback Method
cpg	885.84	J/mol×K	848.95	Joback Method
cpg	900.59	J/mol×K	879.31	Joback Method
cpg	914.54	J/mol×K	909.66	Joback Method
cpg	927.73	J/mol×K	940.02	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U321522&Units=SI
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

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