l-Valine, n-pentafluoropropionyl-, propyl ester

Inchi: InChI=1S/C11H16F5NO3/c1-4-5-20-8(18)7(6(2)3)17-9(19)10(12,13)11(14,15)16/h6-7H,4
InchiKey: YTVFCNKAGWICST-UHFFFAOYSA-N
Formula: C11H16F5NO3
SMILES: CCCOC(=O)C(NC(=O)C(F)(F)C(F)(F)F)C(C)C
Mol. weight [g/mol]: 305.24

Physical Properties

Property code	Value	Unit	Source
gf	-1204.96	kJ/mol	Joback Method
hf	-1582.89	kJ/mol	Joback Method
hfus	27.26	kJ/mol	Joback Method
hvap	54.96	kJ/mol	Joback Method
log10ws	-3.10		Crippen Method
logp	2.278		Crippen Method
mcvol	193.690	ml/mol	McGowan Method
pc	1853.11	kPa	Joback Method
rinpol	1222.00		NIST Webbook
rinpol	1222.00		NIST Webbook
tb	620.42	K	Joback Method
tc	790.36	K	Joback Method
tf	366.27	K	Joback Method
vc	0.772	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	539.55	J/mol×K	620.42	Joback Method
cpg	552.38	J/mol×K	648.74	Joback Method
cpg	564.47	J/mol×K	677.07	Joback Method
cpg	575.85	J/mol×K	705.39	Joback Method
cpg	586.55	J/mol×K	733.72	Joback Method
cpg	596.59	J/mol×K	762.04	Joback Method
cpg	606.02	J/mol×K	790.36	Joback Method

Sources

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=U320879&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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