

L-Valine, N-(4-fluoro-2-trifluoromethylbenzoyl)-, nonyl

Inchi:
ester

InChI=1S/C22H31F4NO3/c1-4-5-6-7-8-9-10-13-30-21(29)19(15(2)3)27-20(28)17-12-11-1

InchiKey:

HAYJPQCJRVEBGG-UHFFFAOYSA-N

Formula:

C22H31F4NO3

SMILES:

CCCCCCCCCOC(=O)C(NC(=O)c1ccc(F)cc1C(F)(F)F)C(C)C

Mol. weight [g/mol]:

433.48

Physical Properties

Property code	Value	Unit	Source
gf	-827.22	kJ/mol	Joback Method
hf	-1391.48	kJ/mol	Joback Method
hfus	53.34	kJ/mol	Joback Method
hvap	85.16	kJ/mol	Joback Method
log10ws	-7.43		Crippen Method
logp	5.893		Crippen Method
mvol	323.150	ml/mol	McGowan Method
pc	1073.57	kPa	Joback Method
rinpol	2444.00		NIST Webbook
rinpol	2444.00		NIST Webbook
tb	912.70	K	Joback Method
tc	1117.72	K	Joback Method
tf	538.69	K	Joback Method
vc	1.274	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1057.16	J/molxK	912.70	Joback Method
cpg	1072.44	J/molxK	946.87	Joback Method
cpg	1086.59	J/molxK	981.04	Joback Method
cpg	1099.67	J/molxK	1015.21	Joback Method
cpg	1111.75	J/molxK	1049.38	Joback Method
cpg	1122.89	J/molxK	1083.55	Joback Method
cpg	1133.14	J/molxK	1117.72	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=U346485&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
rinpola:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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