

DL-Valine, N-methyl-N-decyloxycarbonyl-, decyl ester

Inchi:	InChI=1S/C27H53NO4/c1-6-8-10-12-14-16-18-20-22-31-26(29)25(24(3)4)28(5)27(30)32
InchiKey:	AWPFHKQERCOSK-UHFFFAOYSA-N
Formula:	C27H53NO4
SMILES:	CCCCCCCCCOC(=O)C(C(C)C)N(C)C(=O)OCCCCCCCCC
Mol. weight [g/mol]:	455.71

Physical Properties

Property code	Value	Unit	Source
gf	-185.48	kJ/mol	Joback Method
hf	-1033.24	kJ/mol	Joback Method
hfus	67.24	kJ/mol	Joback Method
hvap	95.28	kJ/mol	Joback Method
log10ws	-8.27		Crippen Method
logp	7.904		Crippen Method
mvol	416.150	ml/mol	McGowan Method
pc	728.88	kPa	Joback Method
rinpol	2918.00		NIST Webbook
rinpol	2918.00		NIST Webbook
tb	981.30	K	Joback Method
tc	1212.75	K	Joback Method
tf	540.84	K	Joback Method
vc	1.601	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1455.55	J/molxK	981.30	Joback Method
cpg	1477.49	J/molxK	1019.88	Joback Method
cpg	1497.54	J/molxK	1058.45	Joback Method
cpg	1515.78	J/molxK	1097.03	Joback Method
cpg	1532.28	J/molxK	1135.60	Joback Method
cpg	1547.11	J/molxK	1174.18	Joback Method
cpg	1560.35	J/molxK	1212.75	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U392927&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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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