

Ergosta-5,7-dien-3-ol, (3«beta»)-

Other names:	Ergosta-5,7-dien-3«beta»-ol «delta»5,7-Ergostadienol Dihydroergosterol Provitamin D4 22,23-Dihydroergosterol «DELTA»5,7-Ergostadien-3«beta»-ol 24S-Methylcholesta-5,7-dien-3«beta»-ol 5,7-Ergostadienol 24-Methylcholesta-5,7-dien-3-«beta»-ol 5,7-Ergostadien-3«beta»-ol 22,23-dihydroergosterol, non-irradiated
Inchi:	InChI=1S/C28H46O/c1-18(2)19(3)7-8-20(4)24-11-12-25-23-10-9-21-17-22(29)13-15-27(2)
InchiKey:	ZKQRGSXITBHHPG-YWSITSQTSAN
Formula:	C28H46O
SMILES:	<chem>CC(C)C(C)CCC(C)C1CCC2C3=CC=C4CC(O)CCC4(C)C3CCC21C</chem>
Mol. weight [g/mol]:	398.66
CAS:	516-79-0

Physical Properties

Property code	Value	Unit	Source
gf	237.50	kJ/mol	Joback Method
hf	-446.50	kJ/mol	Joback Method
hfus	35.05	kJ/mol	Joback Method
hvap	92.94	kJ/mol	Joback Method
log10ws	-8.27		Crippen Method
logp	7.555		Crippen Method
mvol	359.210	ml/mol	McGowan Method
pc	1054.83	kPa	Joback Method
rinpol	3175.00		NIST Webbook
tb	978.63	K	Joback Method
tc	1204.27	K	Joback Method
tf	541.18	K	Joback Method
vc	1.359	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1353.59	J/mol×K	978.63	Joback Method
cpg	1384.90	J/mol×K	1016.24	Joback Method
cpg	1417.06	J/mol×K	1053.84	Joback Method
cpg	1450.40	J/mol×K	1091.45	Joback Method
cpg	1485.27	J/mol×K	1129.06	Joback Method
cpg	1522.01	J/mol×K	1166.66	Joback Method
cpg	1560.97	J/mol×K	1204.27	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C516790&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
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
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

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