Betamethasone

Other names:

(11«beta»,16«beta»)-9-Fluoro-11,17,21-trihydroxy-16-methylpregna-1,4-diene-3,20-dione
(11Â«betaÂ»,16Â«betaÂ»)-9-Fluoro-11,17,21-trihydroxy-16-methylpregna-1,4-diene-3,20
16-«beta»-Methyl-1,4-pregnadiene-9-«alpha»-fluoro-11-«beta»,17-«alpha»,21-triol-3,20-d
16-Â«betaÂ»-Methyl-1,4-pregnadiene-9-Â«alphaÂ»-fluoro-11-Â«betaÂ»,17-Â«alphaÂ»,2
9-Fluoro-11«beta»,17,21-trihydroxy-16«beta»-methylpregna-1,4-diene-3,20-dione
9-Fluoro-11Â«betaÂ»,17,21-trihydroxy-16Â«betaÂ»-methylpregna-1,4-diene-3,20-dione
9-Fluoro-16«beta»-methylprednisolone
9-Fluoro-16Â«betaÂ»-methylprednisolone
9-«alpha»-Fluoro-11-«beta»,17,21-trihydroxy-16-«beta»-methylpregna-1,4-diene-3,20-dio
9-«alpha»-Fluoro-11-«beta»,17-«alpha»,21-trihydroxy-16-«beta»-methylpregna-1,4-diene
9-«alpha»-Fluoro-16-«beta»-methyl-1,4-pregnadiene-11-«beta»,17-«alpha»,21-triol-3,20-
9-Â«alphaÂ»-Fluoro-11-Â«betaÂ»,17,21-trihydroxy-16-Â«betaÂ»-methylpregna-1,4-diene
9-Â«alphaÂ»-Fluoro-11-Â«betaÂ»,17-Â«alphaÂ»,21-trihydroxy-16-Â«betaÂ»-methylpreg
9-Â«alphaÂ»-Fluoro-16-Â«betaÂ»-methyl-1,4-pregnadiene-11-Â«betaÂ»,17-Â«alphaÂ»,2
9«alpha»-Fluoro-16«beta»-methylprednisolone
9Â«alphaÂ»-Fluoro-16Â«betaÂ»-methylprednisolone
Bebate
Becort
Bedifos
Betacorlan
Betacortril
Betadexamethasone
Betamamallet
Betametasone
Betamethazone
Betapredol
Betasolon
Betnelan
Betsolan
Celestene
Celestone
Cidoten
Corticosterone, 1-dehydro-9-fluoro-17-hydroxy-16«beta»-methyl-
Corticosterone, 1-dehydro-9-fluoro-17-hydroxy-16Â«betaÂ»-methyl-
Dermabet
Desacort-beta
Desacort-«beta»
Desacort-Â«betaÂ»
Flubenisolone
Hormezon

Methazon

NSC-39470

Prednisolone, 9-fluoro-16«beta»-methyl-

Prednisolone, 9-fluoro-16Â«betaÂ»-methyl-

Pregna-1,4-diene-3,20-dione, 9-fluoro-11,17,21-trihydroxy-16-methyl-, (11«beta»,16«beta»)-

Pregna-1,4-diene-3,20-dione, 9-fluoro-11,17,21-trihydroxy-16-methyl-, (11Â«betaÂ»,16Â«betaÂ»)-

Pregna-1,4-diene-3,20-dione, 9-fluoro-11«beta»,17,21-trihydroxy-16«beta»-methyl-

Pregna-1,4-diene-3,20-dione, 9-fluoro-11Â«betaÂ»,17,21-trihydroxy-16Â«betaÂ»-methyl-

Pregna-1,4-diene-3,20-dione, 9alpha-fluoro-11beta,17alpha,21-trihydroxy-16beta-methyl-

Rinderon

Rinderon A

Sch 4831

Valisone

Visubeta

«beta»-Corlan

«beta»-Methasone

«beta»-Methasone alcohol

Â«betaÂ»-Corlan

Â«betaÂ»-Methasone

Â«betaÂ»-Methasone alcohol

Inchi: InChI=1S/C22H29FO5/c1-12-8-16-15-5-4-13-9-14(25)6-7-19(13,2)21(15,23)17(26)10-20

InchiKey: UREBDLICKHMUKA-FGEXTOQASA-N

Formula: C22H29FO5

SMILES: CC1CC2C3CCC4=CC(=O)C=CC4(C)C3(F)C(O)CC2(C)C1(O)C(=O)CO

Mol. weight [g/mol]: 392.46

CAS: 378-44-9

Physical Properties

Property code	Value	Unit	Source
gf	-542.43	kJ/mol	Joback Method
hf	-1056.40	kJ/mol	Joback Method
hfus	32.38	kJ/mol	Joback Method
hvap	120.70	kJ/mol	Joback Method
log10ws	-3.77		Aqueous Solubility Prediction Method
logp	1.896		Crippen Method
mcvol	291.320	ml/mol	McGowan Method
pc	1973.55	kPa	Joback Method
tb	1134.15	K	Joback Method
tc	1389.42	K	Joback Method

tf	785.74	K	Joback Method
vc	1.103	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1266.64	J/mol×K	1134.15	Joback Method
cpg	1322.47	J/mol×K	1176.69	Joback Method
cpg	1384.52	J/mol×K	1219.24	Joback Method
cpg	1453.49	J/mol×K	1261.78	Joback Method
cpg	1530.04	J/mol×K	1304.33	Joback Method
cpg	1614.86	J/mol×K	1346.87	Joback Method
cpg	1708.64	J/mol×K	1389.42	Joback Method

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Joback Method: https://en.wikipedia.org/wiki/Joback_method
Aqueous Solubility Prediction Method: http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa
McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C378449&Units=SI

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
tb: Normal Boiling Point Temperature
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume