Cyfluthrin

Other names:
BAY-FCR 1272
BAY-VI 1704
Baythroid
Baythroid H
Beta-cyfluthrin
Bulldock
Cyano(4-fluoro-3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate
Cyclopropanecarboxylic acid, 2-(2,2-dichlorovinyl)-3,3-dimethyl-, ester with (4-fluoro-3-phenoxyphenyl)hydroxyacetonitrile
Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano(4-fluoro-3-phenoxyphenyl)methyl ester
Cyfluthin
Cyfluthine
Cyfoxylate
Eulan SP
FCR 1272
FCR 4545
Responsar
Sofac
Solfac
Syfrutrin
Tempo 2
[cyano-[4-fluoro-3-(phenoxy)phenyl]methyl] 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropane-1-carboxylate
«alpha»-cyano-4-fluoro-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate
«beta»-Cyfluthrin
Â«alphaÂ»-cyano-4-fluoro-3-phenoxybenzyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate
Â«betaÂ»-Cyfluthrin

Inchi: InChI=1S/C22H18Cl2FNO3/c1-22(2)15(11-19(23)24)20(22)21(27)29-18(12-26)13-8-9-16
InchiKey: QQODLKZGRKWIFG-UHFFFAOYSA-N
Formula: C22H18Cl2FNO3
SMILES: CC1(C)C(C=C(Cl)Cl)C1C(=O)OC(C#N)c1ccc(F)c(Oc2ccccc2)c1
Mol. weight [g/mol]: 434.29
CAS: 68359-37-5

Physical Properties

Property code	Value	Unit	Source
gf	24.58	kJ/mol	Joback Method
hf	-337.51	kJ/mol	Joback Method

hfus	46.34	kJ/mol	Joback Method
hvap	98.23	kJ/mol	Joback Method
log10ws	-7.34		Aqueous Solubility Prediction Method
log10ws	-7.34		Estimated Solubility Method
logp	6.317		Crippen Method
mcvol	299.100	ml/mol	McGowan Method
pc	1435.89	kPa	Joback Method
tb	1042.24	K	Joback Method
tc	1294.69	K	Joback Method
tf	634.71	K	Joback Method
vc	1.163	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	925.27	J/mol×K	1042.24	Joback Method
cpg	943.33	J/mol×K	1084.31	Joback Method
cpg	961.89	J/mol×K	1126.39	Joback Method
cpg	981.18	J/mol×K	1168.46	Joback Method
cpg	1001.44	J/mol×K	1210.54	Joback Method
cpg	1022.92	J/mol×K	1252.61	Joback Method
cpg	1045.85	J/mol×K	1294.69	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

Estimated Solubility Method: http://pubs.acs.org/doi/suppl/10.1021/ci034243x/suppl_file/ci034243xsi20040112_053635.txt

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C68359375&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