

Deltamethrin

Other names:

(S)-Cyano(4-phenoxyphenyl)methyl
3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate, (1R,3R)-
(S)-«alpha»-cyano-3-phenoxybenzyl
(1R)-cis-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate
(S)-A«alphaA»-cyano-3-phenoxybenzyl
(1R)-cis-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate
Butox
Cislin
Crackdown
Cyclopropanecarboxylic acid, 3-(2,2-dibromoethenyl)-2,2-dimethyl-,
(S)-cyano(3-phenoxyphenyl)methyl ester, (1R,3R)-
Cyclopropanecarboxylic acid, 3-(2,2-dibromoethenyl)-2,2-dimethyl-,
cyano(3-phenoxyphenyl)methyl ester, (1R-(1«alpha»(S*),3«alpha»))-
Cyclopropanecarboxylic acid, 3-(2,2-dibromoethenyl)-2,2-dimethyl-,
cyano(3-phenoxyphenyl)methyl ester, (1R-(1Â«alphaÂ»(S*),3Â«alphaÂ»))-
Decamethrin
Decamethrine
Decis
Decis 0.5ULV
Decis 1.5ULV
Decis 2.5ULV
Dekametrin
DeltaGard
Deltagran
Deltamethrine
Esbecythrín
FMC 45498
Glossinex 200
IPO 8831
K-Obiol
K-Othrin
K-Othrine
NRDC 161
New Musigie
OMS 1988
Phagase 1
RU 22974
RUP 987
Suspend
Zorcis
«alpha»-cyano-3-phenoxybenzyl
[1R-[1«alpha»(S*),3«alpha»]]-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate
A«alphaA»-cyano-3-phenoxybenzyl
[1R-[1Â«alphaÂ»(S*),3Â«alphaÂ»]]-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate
InChI=1S/C22H19Br2NO3/c1-22(2)17(12-19(23)24)20(22)21(26)28-18(13-25)14-7-6-10-11
Inchi:
InchiKey:
Formula:
SMILES:

CC1(C)C(C=C(Br)Br)C1C(=O)OC(C#N)c1cccc(Oc2cccc2)c1

Mol. weight [g/mol]: 505.20
CAS: 52918-63-5

Physical Properties

Property code	Value	Unit	Source
gf	281.52	kJ/mol	Joback Method
hf	-45.79	kJ/mol	Joback Method
hfus	45.83	kJ/mol	Joback Method
hvap	102.49	kJ/mol	Joback Method
log10ws	-8.40		Estimated Solubility Method
logp	6.490		Crippen Method
mcvol	307.850	ml/mol	McGowan Method
pc	1784.86	kPa	Joback Method
rinpol	3059.00		NIST Webbook
tb	1095.45	K	Joback Method
tc	1365.29	K	Joback Method
tf	373.50 ± 0.10	K	NIST Webbook
vc	1.171	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	947.63	J/mol×K	1095.45	Joback Method
cpg	969.02	J/mol×K	1140.42	Joback Method
cpg	991.68	J/mol×K	1185.40	Joback Method
cpg	1015.94	J/mol×K	1230.37	Joback Method
cpg	1042.14	J/mol×K	1275.34	Joback Method
cpg	1070.62	J/mol×K	1320.31	Joback Method
cpg	1101.69	J/mol×K	1365.29	Joback Method
hfust	40.71	kJ/mol	372.90	NIST Webbook

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
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=C52918635&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307I

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
hfust:	Enthalpy of fusion at a given temperature
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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