Phosmet

Other names:	Imidan
	Fosmet
	Phosphorodithioic acid, S-[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)methyl] O,O-dimethyl ester
	Phosphorodithioic acid, O,O-dimethyl ester, S-ester with N-(mercaptomethyl)phthalimide
	Decemthion
	Decemthion P-6
	Ftalophos
	N-(Mercaptomethyl)phthalimide S-(O,O-dimethyl) phosphorodithioate
	O,O-Dimethyl S-(phthalimidomethyl)dithiophosphate
	O,O-Dimethyl S-(phthalimidomethyl)phosphorodithioate
	O,O-Dimethyl S-(N-phthalimidomethyl)dithiophosphate
	Phthalophos
	Prolate
	PMP
	PMP (Pesticide)
	R 1504
	Safidon
	Smidan
	Stauffer R 1504
	Appa
	(O,O-Dimethyl-phthalimidiomethyl-dithiophosphate)
	ENT 25,705
	Kemolate
	Percolate
	Phosphorodithioic acid, S-((1,3-dihydro-1,3-dioxo-isoindol-2-yl)methyl) O,O-dimethyl ester
	Phthalimide, N-(mercaptomethyl)-, S-ester with O,O-dimethyl phosphorodithioate
	Phthalimido O,O-dimethyl phosphorodithioate
	Phthalimidomethyl O,O-dimethyl phosphorodithioate
	Imidathion
	Simidan
Inchi:	InChI=1S/C11H12NO4PS2/c1-15-17(18,16-2)19-7-12-10(13)8-5-3-4-6-9(8)11(12)14/h3-6
InchiKey:	LMNZTLDVJIUSHT-UHFFFAOYSA-N
Formula:	C11H12NO3PS
SMILES:	COP(=S)(OC)SCN1C(=O)c2ccccc2C1=O
Mol. weight [g/mol]:	269.26
CAS:	732-11-6

Physical Properties

Property code	Value	Unit	Source
log10ws	0.53		Crippen Method
logp	2.491		Crippen Method
mcvol	209.250	ml/mol	McGowan Method
rinpol	2375.00		NIST Webbook
rinpol	2466.00		NIST Webbook
rinpol	2452.00		NIST Webbook
tf	344.00 ± 0.20	K	NIST Webbook
tf	345.20 ± 0.10	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hfust	26.96	kJ/mol	343.20	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C732116&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Legend

hfust: Enthalpy of fusion at a given temperature
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient
mcvol: McGowan's characteristic volume
rinpol: Non-polar retention indices
tf: Normal melting (fusion) point