Dimethoate

Other names:

Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
Phosphorodithioic acid, O,O-dimethyl ester, S-ester with 2-mercapto-N-methylacetamide
American Cyanamid 12880
BI 58
Cygon
Cygon Insecticide
Cygon 4E
CL 12880
Daphene
De-Fend
Dimeton
Dimevur
Experimental Insecticide 12880
ENT-24650
Fosfatox R
Fosfotox
Fosfotox R
Fosfotox R 35
Fostion MM
FIP
Lurgo
O,O-Dimethyl S-(N-methylcarbamoylmethyl) dithiophosphate
O,O-Dimethyl S-(N-methylcarbamoylmethyl) phosphorodithioate
Perfecthion
Perfekthion
Phosphamid
Phosphamide
PEI 75
Racusan
Rogor
Rogor L
Rogor P
Rogor 20 L
Rogor 40
Roxion
S-Methylcarbamoylmethyl O,O-Dimethyl phosphorodithioate
Sinoratox
8014 Bis HC
Fosfamid
Rebelate

	Turbair
	Aadimethoal
	Cygon 2-E
	Cygon 400
	Sistemin
	Systemin
	Systoate
	Tara
	Tara 909
Inchi:	InChI=1S/C5H12NO3PS2/c1-6-5(7)4-12-10(11,8-2)9-3/h4H2,1-3H3,(H,6,7)
InchiKey:	MCWXGJITAZMZEV-UHFFFAOYSA-N
Formula:	C5H12NO3PS2
SMILES:	CNC(=O)CSP(=S)(OC)OC
Mol. weight [g/mol]:	229.26
CAS:	60-51-5

Physical Properties

Property code	Value	Unit	Source
hvap	95.00	kJ/mol	NIST Webbook
log10ws	2.81		Crippen Method
logp	0.983		Crippen Method
mcvol	157.760	ml/mol	McGowan Method
rinpol	1675.00		NIST Webbook
rinpol	1733.00		NIST Webbook
rinpol	1707.00		NIST Webbook
rinpol	1739.00		NIST Webbook
rinpol	1731.00		NIST Webbook
rinpol	1690.00		NIST Webbook
rinpol	1720.00		NIST Webbook
rinpol	1718.00		NIST Webbook
rinpol	1724.00		NIST Webbook
rinpol	1710.00		NIST Webbook
rinpol	1727.00		NIST Webbook
rinpol	1690.00		NIST Webbook
rinpol	1736.00		NIST Webbook
rinpol	1733.00		NIST Webbook
rinpol	1720.00		NIST Webbook
rinpol	1720.00		NIST Webbook
rinpol	1733.00		NIST Webbook
rinpol	1725.00		NIST Webbook

rinpol	290.75		NIST Webbook
rinpol	292.33		NIST Webbook
rinpol	1710.00		NIST Webbook
rinpol	1707.00		NIST Webbook
rinpol	1710.00		NIST Webbook
tf	321.22 ± 0.20	K	NIST Webbook
tf	324.60 ± 0.10	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hfust	20.49	kJ/mol	321.00	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C60515&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

Legend

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
rinpol: Non-polar retention indices
tf: Normal melting (fusion) point