Parathion

Other names:

AAT
AATP
AC 3422
ACC 3422
Alkron
Alleron
American Cyanamid 3422
Aphamite
Aralo
B 404
BAY E-605
Bayer E-605
Bladan
Bladan F
Compound 3422
Corothion
Corthion
Corthione
DNTP
DPP
Danthion
Diethoxy, nitro-phenoxy phosphorothioate
Diethyl 4-nitrophenyl phosphorothioate
Diethyl 4-nitrophenyl phosphorothionate
Diethyl p-Nitrophenyl phosphorothionate
Diethyl p-nitrophenyl thionophosphate
Diethyl p-nitrophenyl thiophosphate
Diethyl para-nitrophenol thiophosphate
Diethyl parathion
Drexel parathion 8E
E 605
E 605 FORTE
E 605F
ENT 15,108
ENT 15108
Ecatox
Ecatox 20
Ekatox
Ethlon
Ethyl Parathion

Ethyle-parathion
Etilon
Etylparation
Folidol
Folidol E
Folidol E & E 605
Folidol E-605
Folidol Oil
Fosfermo
Fosferno
Fosfex
Fosfive
Fosova
Fostern
Fostox
Galpar
Gearphos
Genithion
Isotox
Jacutin
Kokotine
Kolphos
Kwell
Kypthion
Lethalaire G-54
Lirothion
Murfos
Murphos
NA 2783
NCI-C00226
NIUIF 100
Niran
Niran E-4
Nitrostigmin
Nitrostigmine
Nitrostygmine
Nourithion
O,O-Diethyl O-(4-nitrophenyl) thiophosphate
O,O-Diethyl O-(p-Nitrophenyl) phosphorothioate
O,O-Diethyl O-(p-nitrophenyl) thionophosphate
O,O-Diethyl O-(p-nitrophenyl) thiophosphate
O,O-Diethyl-O-(4-nitrophenyl) phosphorothioate
O,O-Diethyl-O-p-nitrofenylester kyseliny thiofosforecne

O,O-Dietil-O-(4-nitro-fenil)-monotiofosfato
O,O-diaethyl-O-(4-nitro-phenyl)-monothiophosphat
O,O-diethyl O-4-nitrophenyl phosphorothioate (parathion)
O,O-diethyl-O-(4-nitro-fenil)monothiofosfaat
OMS 19
Oleofos 20
Oleoparaphene
Oleoparathene
Oleoparathion
Orthophos
PAC
Pacol
Panthion
Paradust
Paramar
Paramar 50
Paraphos
Parathene
Parathion A
Parathion mixture
Parathion-aethyl
Parathion-ethyl
Parawet
Penncap E
Pestox plus
Pethion
Phenol, p-nitro-, O-ester with O,O-diethylphosphorothioate
Phoskil
Phosphemol
Phosphenol
Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester
Phosphostigmine
RB
Rcra waste number P089
Rhodiasol
Rhodiatox
Rhodiatrox
Rodiatox
S.N.P.
SNP
Selephos
Sixty-three special E.C. insecticide

Soprathion
Stabilized ethyl parathion
Stathion
Strathion
Sulphos
Super Rodiatox
T-47
TOX 47
Thiofos
Thiomex
Thiophos
Thiophos 3422
Thiophos Parathion 4 E.C.
Thiophosphate de O,O-diethyle et de O-(4-nitrophenyle)
Tiofos
Vapophos
Vitrex
Vitrex HGI
diethoxy-(4-nitrophenoxy)-sulfanylidenephosphorane

Inchi: InChI=1S/C10H14NO5PS/c1-3-14-17(18,15-4-2)16-10-7-5-9(6-8-10)11(12)13/h5-8H,3-4H

InchiKey: LCCNCVORNKJIRZ-UHFFFAOYSA-N

Formula: C10H14NO5PS

SMILES: CCOP(=S)(OCC)Oc1ccc([N+](=O)[O-])cc1

Mol. weight [g/mol]: 291.26

CAS: 56-38-2

Physical Properties

Property code	Value	Unit	Source
log10ws	-4.29		Aqueous Solubility Prediction Method
log10ws	-4.66		Estimated Solubility Method
logp	3.271		Crippen Method
mcvol	199.840	ml/mol	McGowan Method
rinpol	1961.00		NIST Webbook
rinpol	1989.00		NIST Webbook
rinpol	2000.00		NIST Webbook
rinpol	1947.00		NIST Webbook
rinpol	1946.00		NIST Webbook
rinpol	1935.00		NIST Webbook

rinpol	2008.00		NIST Webbook
rinpol	1962.00		NIST Webbook
rinpol	1950.00		NIST Webbook
rinpol	1940.00		NIST Webbook
rinpol	1975.00		NIST Webbook
rinpol	1975.00		NIST Webbook
rinpol	1994.00		NIST Webbook
rinpol	1996.00		NIST Webbook
rinpol	1941.00		NIST Webbook
rinpol	1935.00		NIST Webbook
rinpol	1971.00		NIST Webbook
rinpol	1942.00		NIST Webbook
rinpol	1989.00		NIST Webbook
rinpol	1953.00		NIST Webbook
rinpol	1953.00		NIST Webbook
rinpol	1942.00		NIST Webbook
rinpol	1994.00		NIST Webbook
rinpol	1942.00		NIST Webbook
rinpol	1956.00		NIST Webbook
rinpol	1961.00		NIST Webbook
rinpol	1956.00		NIST Webbook
rinpol	1940.00		NIST Webbook
rinpol	2008.00		NIST Webbook
rinpol	1950.00		NIST Webbook
rinpol	1941.00		NIST Webbook
rinpol	1935.00		NIST Webbook
ripol	2967.00		NIST Webbook
ripol	2967.00		NIST Webbook
tf	279.25	K	Aqueous Solubility Prediction Method
tf	278.53 ± 0.20	K	NIST Webbook
tf	279.40 ± 0.10	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hfust	15.72	kJ/mol	278.10	NIST Webbook
hsubt	100.60	kJ/mol	308.00	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C56382&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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

Legend

hfust:	Enthalpy of fusion at a given temperature
hsubt:	Enthalpy of sublimation 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
ripol:	Polar retention indices
tf:	Normal melting (fusion) point