Silvex, methyl ester

Other names:	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-, methyl ester
	Propionic acid, 2-(2,4,5-trichlorophenoxy)-, methyl ester
	Methyl 2-(2,4,5-trichlorophenoxy)propionate
	2-(2,4,5-Trichlorophenoxy)propionic acid methyl ester
	2,4,5-TP, methyl ester
	Fenoprop, methyl ester
	Silvex, methylated
Inchi:	InChI=1S/C10H9Cl3O3/c1-5(10(14)15-2)16-9-4-7(12)6(11)3-8(9)13/h3-5H,1-2H3
InchiKey:	YTAXYXOJOYIQQO-UHFFFAOYSA-N
Formula:	C10H9Cl3O3
SMILES:	COC(=O)C(C)Oc1cc(Cl)c(Cl)cc1Cl
Mol. weight [g/mol]:	283.54
CAS:	4841-20-7

Physical Properties

Property code	Value	Unit	Source
gf	-260.31	kJ/mol	Joback Method
hf	-477.13	kJ/mol	Joback Method
hfus	27.57	kJ/mol	Joback Method
hvap	66.45	kJ/mol	Joback Method
log10ws	-3.88		Crippen Method
logp	3.587		Crippen Method
mcvol	178.030	ml/mol	McGowan Method
pc	2587.22	kPa	Joback Method
rinpol	1709.00		NIST Webbook
rinpol	1709.00		NIST Webbook
rinpol	1705.00		NIST Webbook
rinpol	1705.00		NIST Webbook
rinpol	1712.00		NIST Webbook
rinpol	1716.00		NIST Webbook
rinpol	1733.00		NIST Webbook
ripol	2371.00		NIST Webbook
ripol	2372.00		NIST Webbook
ripol	2371.00		NIST Webbook
tb	680.38	K	Joback Method
tc	908.89	K	Joback Method
tf	361.16 ± 0.20	K	NIST Webbook

vc	0.670	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	393.73	J/mol×K	680.38	Joback Method
cpg	404.23	J/mol×K	718.47	Joback Method
cpg	414.01	J/mol×K	756.55	Joback Method
cpg	423.08	J/mol×K	794.64	Joback Method
cpg	431.40	J/mol×K	832.72	Joback Method
cpg	438.98	J/mol×K	870.81	Joback Method
cpg	445.80	J/mol×K	908.89	Joback Method
dvisc	0.0007966	Pa×s	435.59	Joback Method
dvisc	0.0005196	Pa×s	476.39	Joback Method
dvisc	0.0003625	Pa×s	517.19	Joback Method
dvisc	0.0002666	Pa×s	557.99	Joback Method
dvisc	0.0002044	Pa×s	598.78	Joback Method
dvisc	0.0001622	Pa×s	639.58	Joback Method
dvisc	0.0001323	Pa×s	680.38	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C4841207&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method: https://en.wikipedia.org/wiki/Joback_method
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

Legend

cpg: Ideal gas heat capacity
dvisc: Dynamic viscosity
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
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume