

Silvex, ethylated

Other names:

Fenoprop, ethyl ester
2,4,5-TCPP, ethyl ester
2,4,5-TP, ethyl ester
ethyl 2-(2,4,5-trichlorophenoxy)propionate

Inchi:

InChI=1S/C11H11Cl3O3/c1-3-16-11(15)6(2)17-10-5-8(13)7(12)4-9(10)14/h4-6H,3H2,1-2

InchiKey:

KPHBYKLGXIRBSS-UHFFFAOYSA-N

Formula:

C11H11Cl3O3

SMILES:

CCOC(=O)C(C)Oc1cc(Cl)c(Cl)cc1Cl

Mol. weight [g/mol]:

297.56

CAS:

10463-02-2

Physical Properties

Property code	Value	Unit	Source
gf	-251.89	kJ/mol	Joback Method
hf	-497.77	kJ/mol	Joback Method
hfus	30.16	kJ/mol	Joback Method
hvap	68.67	kJ/mol	Joback Method
log10ws	-4.30		Crippen Method
logp	3.977		Crippen Method
mcvol	192.120	ml/mol	McGowan Method
pc	2351.92	kPa	Joback Method
rinpol	1859.00		NIST Webbook
rinpol	1859.00		NIST Webbook
tb	703.26	K	Joback Method
tc	927.66	K	Joback Method
tf	446.86	K	Joback Method
vc	0.727	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	443.25	J/mol×K	703.26	Joback Method
cpg	491.50	J/mol×K	890.26	Joback Method
cpg	483.43	J/mol×K	852.86	Joback Method

cpg	474.56	J/molxK	815.46	Joback Method
cpg	464.90	J/molxK	778.06	Joback Method
cpg	454.46	J/molxK	740.66	Joback Method
cpg	498.78	J/molxK	927.66	Joback Method
dvisc	0.0001172	Paxs	703.26	Joback Method
dvisc	0.0001444	Paxs	660.53	Joback Method
dvisc	0.0001831	Paxs	617.79	Joback Method
dvisc	0.0002406	Paxs	575.06	Joback Method
dvisc	0.0003302	Paxs	532.33	Joback Method
dvisc	0.0004789	Paxs	489.59	Joback Method
dvisc	0.0007459	Paxs	446.86	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C10463022&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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