Acetic acid, (2,4-dichlorophenoxy)-, ethyl ester

Other names:	Dicotox
	Ethyl 2-(2,4-dichlorophenoxy)acetate
	Ethyl 2,4-dichlorophenoxyacetate
	Weedone 40
	Weedone concentrate 48
	Benzeneacetic acid, 2,4-dichloro-, ethyl ester
	2,4-D ethyl ester
	(2,4-Dichlorophenoxy)acetic acid ethyl ester
	2,4-DEE
	Estone 80
Inchi:	InChI=1S/C10H10Cl2O3/c1-2-14-10(13)6-15-9-4-3-7(11)5-8(9)12/h3-5H,2,6H2,1H3
InchiKey:	JSLBZIVMVVHMDJ-UHFFFAOYSA-N
Formula:	C10H10Cl2O3
SMILES:	CCOC(=O)COc1ccc(Cl)cc1Cl
Mol. weight [g/mol]:	249.09
CAS:	533-23-3

Physical Properties

Property code	Value	Unit	Source
gf	-236.31	kJ/mol	Joback Method
hf	-444.64	kJ/mol	Joback Method
hfus	27.29	kJ/mol	Joback Method
hvap	61.79	kJ/mol	Joback Method
log10ws	-3.08		Crippen Method
logp	2.935		Crippen Method
mcvol	165.790	ml/mol	McGowan Method
pc	2707.03	kPa	Joback Method
tb	638.41	K	Joback Method
tc	858.50	K	Joback Method
tf	408.15	K	Joback Method
vc	0.627	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	372.26	J/mol×K	638.41	Joback Method
cpg	383.53	J/mol×K	675.09	Joback Method
cpg	394.13	J/mol×K	711.77	Joback Method
cpg	404.04	J/mol×K	748.45	Joback Method
cpg	413.26	J/mol×K	785.14	Joback Method
cpg	421.79	J/mol×K	821.82	Joback Method
cpg	429.62	J/mol×K	858.50	Joback Method
dvisc	0.0009285	Pa×s	408.15	Joback Method
dvisc	0.0006073	Pa×s	446.53	Joback Method
dvisc	0.0004249	Pa×s	484.90	Joback Method
dvisc	0.0003132	Pa×s	523.28	Joback Method
dvisc	0.0002407	Pa×s	561.66	Joback Method
dvisc	0.0001913	Pa×s	600.03	Joback Method
dvisc	0.0001564	Pa×s	638.41	Joback Method
hvapt	72.60	kJ/mol	508.50	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C533233&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
hvapt: Enthalpy of vaporization at a given temperature
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient
mcvol: McGowan's characteristic volume
pc: Critical Pressure

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

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