DCPA

Other names:	1,4-Benzenedicarboxylic acid, 2,3,5,6-tetrachloro-, dimethyl ester
	Terephthalic acid, tetrachloro-, dimethyl ester
	Chlorthal-methyl
	Dacthal
	Dimethyl tetrachloroterephthalate
	Dimethyl 2,3,5,6-tetrachloroterephthalate
	DAC 4
	DAC-893
	Tetrachloroterephthalic acid dimethyl ester
	Chlorothal-methyl
	Dacthalor
	Dimethyl 2,3,5,6-tetrachloro-1,4-benzenedicarboxylate
	Fatal
	2,3,5,6-Tetrachloroterephthalic acid, dimethyl ester
	2,3,5,6-Tetrachlorphthalsaure-dimethylester
	2,3,5,6-Tetrachloro-1,4-benzenedicarboxilic acid dimethyl ester
	2,3,5,6-Tetrachloro-1,4-benzenedicarboxylic acid dimethyl ester
	Chlorthal-dimethyl
	Dimethyl ester of tetrachloroterephthalic acid
	Terechloroterephthalic acid dimethyl ester
	Terephthalic acid, 2,3,5,6-tetrachloro-,dimethyl ester
	Vegetable turf and ornamental weeder
	Chlorthal dimethyl ester
	NSC 155745
	TCTP
	Tetral
Inchi:	InChI=1S/C10H6Cl4O4/c1-17-9(15)3-5(11)7(13)4(10(16)18-2)8(14)6(3)12/h1-2H3
InchiKey:	NPOJQCVWMSKXDN-UHFFFAOYSA-N
Formula:	C10H6Cl4O4
SMILES:	COC(=O)c1c(Cl)c(Cl)c(C(=O)OC)c(Cl)c1Cl
Mol. weight [g/mol]:	331.96
CAS:	1861-32-1

Physical Properties

Property code	Value	Unit	Source
gf	-417.98	kJ/mol	Joback Method

hf	-623.11	kJ/mol	Joback Method
hfus	36.11	kJ/mol	Joback Method
hvap	79.29	kJ/mol	Joback Method
ie	9.57	eV	NIST Webbook
log10ws	-4.70		Crippen Method
logp	3.873		Crippen Method
mcvol	191.840	ml/mol	McGowan Method
pc	2555.92	kPa	Joback Method
tb	782.08	K	Joback Method
tc	1016.00	K	Joback Method
tf	431.87 ± 0.20	K	NIST Webbook
tf	431.30 ± 0.20	K	NIST Webbook
vc	0.732	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	415.76	J/mol×K	782.08	Joback Method
cpg	423.59	J/mol×K	821.07	Joback Method
cpg	430.69	J/mol×K	860.05	Joback Method
cpg	437.02	J/mol×K	899.04	Joback Method
cpg	442.55	J/mol×K	938.03	Joback Method
cpg	447.25	J/mol×K	977.02	Joback Method
cpg	451.11	J/mol×K	1016.00	Joback Method
dvisc	0.0003493	Pa×s	593.25	Joback Method
dvisc	0.0004626	Pa×s	555.48	Joback Method
dvisc	0.0002728	Pa×s	631.01	Joback Method
dvisc	0.0002191	Pa×s	668.78	Joback Method
dvisc	0.0001801	Pa×s	706.55	Joback Method
dvisc	0.0001510	Pa×s	744.31	Joback Method
dvisc	0.0001288	Pa×s	782.08	Joback Method
hfust	30.23	kJ/mol	431.70	NIST Webbook
hfust	30.23	kJ/mol	431.70	NIST Webbook
hsubt	104.90 ± 1.40	kJ/mol	390.50	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1861321&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

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
hfust:	Enthalpy of fusion at a given temperature
hsubt:	Enthalpy of sublimation at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
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