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:	65862-98-8

Physical Properties

Property code	Value	Unit	Source
ea	0.77	eV	NIST Webbook

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
log10ws	-4.70		Crippen Method
logp	3.873		Crippen Method
mcvol	191.840	ml/mol	McGowan Method
pc	2555.92	kPa	Joback Method
rinpol	1988.00		NIST Webbook
rinpol	1960.00		NIST Webbook
rinpol	1960.00		NIST Webbook
rinpol	1985.00		NIST Webbook
rinpol	1988.00		NIST Webbook
rinpol	1960.00		NIST Webbook
rinpol	1977.00		NIST Webbook
rinpol	1977.00		NIST Webbook
tb	782.08	K	Joback Method
tc	1016.00	K	Joback Method
tf	555.48	K	Joback Method
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	0.0004626	Pa×s	555.48	Joback Method
dvisc	0.0003493	Pa×s	593.25	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

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C65862988&Units=SI

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
ea:	Electron affinity
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