2,4-Cyclopentadien-1-one, 2,3,4,5-tetraphenyl-

Other names:	Cyclone
	Tetracyclon
	Tetracyclone
	Tetraphenyl-2,4-cyclopentadien-1-one
	Tetraphenylcyclopentadienone
	2,3,4,5-Tetraphenyl-2,4-cyclopentadienone
	2,3,4,5-Tetraphenylcyclopentadienone
	Cyclone (compound)
	NSC 2060
Inchi:	InChI=1S/C29H20O/c30-29-27(23-17-9-3-10-18-23)25(21-13-5-1-6-14-21)26(22-15-7-2-8
InchiKey:	PLGPSDNOLCVGSS-UHFFFAOYSA-N
Formula:	C29H20O
SMILES:	O=C1C(c2ccccc2)=C(c2ccccc2)C(c2ccccc2)=C1c1ccccc1
Mol. weight [g/mol]:	384.47
CAS:	479-33-4

Physical Properties

Property code	Value	Unit	Source
gf	586.01	kJ/mol	Joback Method
hf	317.03	kJ/mol	Joback Method
hfus	40.29	kJ/mol	Joback Method
hvap	97.30	kJ/mol	Joback Method
log10ws	-7.92		Crippen Method
logp	6.791		Crippen Method
mcvol	306.540	ml/mol	McGowan Method
pc	1710.36	kPa	Joback Method
tb	1075.65	K	Joback Method
tc	1368.62	K	Joback Method
tf	657.23	K	Joback Method
vc	1.149	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	965.31	J/mol×K	1075.65	Joback Method
cpg	977.89	J/mol×K	1124.48	Joback Method
cpg	988.98	J/mol×K	1173.31	Joback Method
cpg	998.78	J/mol×K	1222.14	Joback Method
cpg	1007.50	J/mol×K	1270.97	Joback Method
cpg	1015.35	J/mol×K	1319.79	Joback Method
cpg	1022.54	J/mol×K	1368.62	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=C479334&Units=SI

Legend

cpg: Ideal gas heat capacity
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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume