

4,4'-Methylenebis(6-tert-butyl-o-cresol)

Other names:	Phenol, 4,4'-methylenebis[2-(1,1-dimethylethyl)-6-methyl-o-Cresol, 4,4'-methylenebis[6-tert-butyl-Ethyl Antioxidant 720 4,4'-Methylenebis(2-t-butyl-6-methylphenol) 4,4'-Methylenebis(6-t-butyl-o-cresol) 4,4'-Methylenebis(2-tert-butyl-6-methylphenol) 6,6'-di-tert-butyl-4,4'-methylenedi-o-cresol
Inchi:	InChI=1S/C23H32O2/c1-14-9-16(12-18(20(14)24)22(3,4)5)11-17-10-15(2)21(25)19(13-1
InchiKey:	RKLRVTKRKFEVQG-UHFFFAOYSA-N
Formula:	C23H32O2
SMILES:	Cc1cc(Cc2cc(C)c(O)c(C(C)(C)C)c2)cc(C(C)(C)C)c1O
Mol. weight [g/mol]:	340.50
CAS:	96-65-1

Physical Properties

Property code	Value	Unit	Source
gf	25.52	kJ/mol	Joback Method
hf	-462.99	kJ/mol	Joback Method
hfus	38.59	kJ/mol	Joback Method
hvap	97.43	kJ/mol	Joback Method
log10ws	-6.25		Crippen Method
logp	5.900		Crippen Method
mcvol	299.150	ml/mol	McGowan Method
pc	1615.47	kPa	Joback Method
tb	953.70	K	Joback Method
tc	1197.24	K	Joback Method
tf	680.17	K	Joback Method
vc	1.018	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	982.66	J/molxK	953.70	Joback Method
cpg	1001.80	J/molxK	994.29	Joback Method

cpg	1020.88	J/molxK	1034.88	Joback Method
cpg	1040.16	J/molxK	1075.47	Joback Method
cpg	1059.89	J/molxK	1116.06	Joback Method
cpg	1080.31	J/molxK	1156.65	Joback Method
cpg	1101.67	J/molxK	1197.24	Joback Method
dvisc	0.0000016	Paxs	680.17	Joback Method
dvisc	0.0000008	Paxs	725.76	Joback Method
dvisc	0.0000004	Paxs	771.35	Joback Method
dvisc	0.0000002	Paxs	816.94	Joback Method
dvisc	0.0000001	Paxs	862.52	Joback Method
dvisc	9.1197039e-08	Paxs	908.11	Joback Method
dvisc	6.0346162e-08	Paxs	953.70	Joback Method

Sources

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=C96651&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
mccvol:	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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