Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-ethyl-

Other names: Phenol, 2,2'-methylenebis[6-tert-butyl-4-ethyl-
Antioxidant 425
AO 425
Chemanox 22
Plastanox 425
Plastanox 425 Antioxidant
2,2'-Methylenebis(6-tert-butyl-4-ethylphenol)
2,2'-Methylenebis(4-ethyl-6-tert-butylphenol)
Bis(2-hydroxy-3-tert-butyl-5-ethylphenyl)methane
USAF CY-6
Antage W 500
Cyanox 425
Nocrac NS 5
2,2'-Methylene-bis(4-ethyl-6-t-butyl) phenol
Phenol, 2,2'-methylenebis[4-ethyl-6(1,1-dimethylethyl)]-
2,2-Methylenebis(4-ethyl-6-t-butylphenol)
Agidol 7
Bis(3-tert-butyl-5-ethyl-2-hydroxyphenyl)methane
NSC 7782
Yoshinox 425
6,6'-di-tert-butyl-4,4'-diethyl-2,2'-methylenediphenol

Inchi: InChI=1S/C25H36O2/c1-9-16-11-18(22(26)20(13-16)24(3,4)5)15-19-12-17(10-2)14-21(2

InchiKey: GPNYZBKIGXGYNU-UHFFFAOYSA-N

Formula: C25H36O2

SMILES: CCc1cc(Cc2cc(CC)cc(C(C)(C)C)c2O)c(O)c(C(C)(C)C)c1

Mol. weight [g/mol]: 368.55

CAS: 88-24-4

Physical Properties

Property code	Value	Unit	Source
gf	42.36	kJ/mol	Joback Method
hf	-504.27	kJ/mol	Joback Method
hfus	43.77	kJ/mol	Joback Method
hvap	101.88	kJ/mol	Joback Method
log10ws	-6.90		Crippen Method
logp	6.408		Crippen Method

mcvol	327.330	ml/mol	McGowan Method
pc	1392.29	kPa	Joback Method
rinpol	2506.80		NIST Webbook
rinpol	2506.80		NIST Webbook
tb	999.46	K	Joback Method
tc	1240.17	K	Joback Method
tf	702.71	K	Joback Method
vc	1.129	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1107.39	J/mol×K	999.46	Joback Method
cpg	1213.83	J/mol×K	1200.05	Joback Method
cpg	1191.33	J/mol×K	1159.93	Joback Method
cpg	1169.68	J/mol×K	1119.81	Joback Method
cpg	1148.64	J/mol×K	1079.70	Joback Method
cpg	1127.96	J/mol×K	1039.58	Joback Method
cpg	1237.45	J/mol×K	1240.17	Joback Method
dvisc	3.6346291e-08	Pa×s	999.46	Joback Method
dvisc	5.5230779e-08	Pa×s	950.00	Joback Method
dvisc	8.7874463e-08	Pa×s	900.54	Joback Method
dvisc	0.0000001	Pa×s	851.09	Joback Method
dvisc	0.0000003	Pa×s	801.63	Joback Method
dvisc	0.0000005	Pa×s	752.17	Joback Method
dvisc	0.0000011	Pa×s	702.71	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=C88244&Units=SI

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
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