

# Santonox

## Other names:

Phenol, 4,4'-thiobis[2-(1,1-dimethylethyl)-5-methyl-  
m-Cresol, 4,4'-thiobis[6-tert-butyl-  
Disperse MB-61  
Santonox BM  
Santowhite crystals  
Santox  
Sumilizer WX  
Thioalkofen BM 4  
Thioalkofen BMCh  
Thioalkofen MBCh  
Thioalkophene BM-4  
Yoshinox SR  
3-tert-Butyl-4-hydroxy-6-methylphenyl sulfide  
4,4'-Thiobis(2-tert-butyl-5-methylphenol)  
Bis(3-tert-butyl-4-hydroxy-6-methylphenyl) sulfide  
Bis(4-hydroxy-5-tert-butyl-2-methylphenyl) sulfide  
Sumilizer WX-R  
USAF B-15  
1,1'-Thiobis(2-methyl-4-hydroxy-5-tert-butylbenzene)  
4,4'-Thiobis(3-methyl-6-tert-butylphenol)  
4,4'-Thiobis(6-tert-butyl-m-cresol)  
4,4'-Thiobis(6-tert-butyl-3-methylphenol)  
Santonox R  
Yoshinox S  
5-t-Butyl-4-hydroxy-2-methylphenyl sulfide  
4,4'-Thio-bis (2-t-butyl-5-methylphenol)  
4,4'-Thiobis-(6-t-butyl-3-methyl-phenol)  
5-tert-Butyl-4-hydroxy-2-methylphenyl sulfide  
Lowinox 44S36  
Ultranox 236  
4,4'-Thiobis(3-methyl-6-t-butylphenol)  
Antage Crystal  
Antioxidant AO  
Antioxidant TMB 6  
NSC 35388  
Nocrac 300  
Nonflex BPS  
6,6'-di-tert-butyl-4,4'-thiodi-m-cresol

## Inchi:

InChI=1S/C22H30O2S/c1-13-9-17(23)15(21(3,4)5)11-19(13)25-20-12-16(22(6,7)8)18(24

## InchiKey:

HXIQYSLFEXIOAV-UHFFFAOYSA-N

**Formula:** C22H30O2S  
**SMILES:** Cc1cc(O)c(C(C)(C)C)cc1Sc1cc(C(C)(C)C)c(O)cc1C  
**Mol. weight [g/mol]:** 358.54  
**CAS:** 96-69-5

## Physical Properties

Property code	Value	Unit	Source
gf	50.22	kJ/mol	Joback Method
hf	-400.48	kJ/mol	Joback Method
hfus	40.13	kJ/mol	Joback Method
hvap	102.02	kJ/mol	Joback Method
log10ws	-6.56		Crippen Method
logp	6.461		Crippen Method
mcvol	301.410	ml/mol	McGowan Method
pc	1772.85	kPa	Joback Method
tb	999.60	K	Joback Method
tc	1258.08	K	Joback Method
tf	703.30	K	Joback Method
vc	1.016	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	979.30	J/molxK	999.60	Joback Method
cpg	998.24	J/molxK	1042.68	Joback Method
cpg	1017.35	J/molxK	1085.76	Joback Method
cpg	1036.90	J/molxK	1128.84	Joback Method
cpg	1057.17	J/molxK	1171.92	Joback Method
cpg	1078.46	J/molxK	1215.00	Joback Method
cpg	1101.03	J/molxK	1258.08	Joback Method

## Sources

**Joback Method:** [https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_method)

<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C96695&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C96695&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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