

# 2-Pinen-10-hydroxyperoxide

<b>Inchi:</b>	InChI=1S/C10H16O2/c1-10(2)8-4-3-7(6-12-11)9(10)5-8/h3,8-9,11H,4-6H2,1-2H3
<b>InchiKey:</b>	WTHZUPXTUUVVBK-UHFFFAOYSA-N
<b>Formula:</b>	C10H16O2
<b>SMILES:</b>	CC1(C)C2CC=C(COO)C1C2
<b>Mol. weight [g/mol]:</b>	168.23

## Physical Properties

Property code	Value	Unit	Source
gf	-194.06	kJ/mol	Joback Method
hf	-419.35	kJ/mol	Joback Method
hfus	21.57	kJ/mol	Joback Method
hvap	54.51	kJ/mol	Joback Method
log10ws	-2.33		Crippen Method
logp	2.468		Crippen Method
mvol	137.480	ml/mol	McGowan Method
pc	2969.80	kPa	Joback Method
rmpol	1629.00		NIST Webbook
rmpol	1629.00		NIST Webbook
tb	591.17	K	Joback Method
tc	816.16	K	Joback Method
tf	428.36	K	Joback Method
vc	0.508	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	356.70	J/mol×K	591.17	Joback Method
cpg	370.81	J/mol×K	628.67	Joback Method
cpg	383.96	J/mol×K	666.17	Joback Method
cpg	396.32	J/mol×K	703.67	Joback Method
cpg	408.09	J/mol×K	741.16	Joback Method
cpg	419.42	J/mol×K	778.66	Joback Method
cpg	430.50	J/mol×K	816.16	Joback Method

# Sources

<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=R287302&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R287302&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.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</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>h vap:</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>r in pol:</b>	Non-polar retention indices
<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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