

# 3-Oxabicyclo[3.2.1]octane-2,4-dione, 1,8,8-trimethyl-

<b>Other names:</b>	d-Camphoric anhydride Camphoric anhydride 1,3-Cyclopentanedicarboxylic anhydride, 1,2,2-trimethyl-(dl)-camphoric anhydride
<b>Inchi:</b>	InChI=1S/C10H14O3/c1-9(2)6-4-5-10(9,3)8(12)13-7(6)11/h6H,4-5H2,1-3H3
<b>InchiKey:</b>	VFZDNKRDYPTSTP-UHFFFAOYSA-N
<b>Formula:</b>	C10H14O3
<b>SMILES:</b>	CC12CCC(C(=O)OC1=O)C2(C)C
<b>Mol. weight [g/mol]:</b>	182.22
<b>CAS:</b>	76-32-4

## Physical Properties

Property code	Value	Unit	Source
gf	-219.37	kJ/mol	Joback Method
hf	-513.71	kJ/mol	Joback Method
hfus	9.20	kJ/mol	Joback Method
hvap	48.42	kJ/mol	Joback Method
log10ws	-1.71		Crippen Method
logp	1.512		Crippen Method
mcvol	139.050	ml/mol	McGowan Method
pc	3265.31	kPa	Joback Method
tb	608.62	K	Joback Method
tc	862.17	K	Joback Method
tf	437.87	K	Joback Method
tt	493.60 ± 1.50	K	NIST Webbook
vc	0.523	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	466.20	J/mol×K	819.91	Joback Method
cpg	481.85	J/mol×K	862.17	Joback Method
cpg	385.35	J/mol×K	608.62	Joback Method
cpg	402.73	J/mol×K	650.88	Joback Method

cpg	419.25	J/mol×K	693.14	Joback Method
cpg	435.16	J/mol×K	735.39	Joback Method
cpg	450.72	J/mol×K	777.65	Joback Method
hfust	8.70	kJ/mol	495.00	NIST Webbook
hfust	29.00	kJ/mol	406.00	NIST Webbook
hfust	5.72	kJ/mol	493.90	NIST Webbook
hfust	8.70	kJ/mol	495.00	NIST Webbook
sfust	17.58	J/mol×K	495.00	NIST Webbook
sfust	71.43	J/mol×K	406.00	NIST Webbook

## Sources

<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.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>
<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=C76324&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C76324&amp;Units=SI</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>hfust:</b>	Enthalpy of fusion at a given temperature
<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>mccvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>sfust:</b>	Entropy of fusion at a given temperature
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>tt:</b>	Triple Point Temperature
<b>vc:</b>	Critical Volume

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