

# 2-Propenoic acid, 2-methyl-, 3-hydroxypropyl ester

<b>Other names:</b>	1,3-Propylene glycol methacrylate 3-Hydroxypropyl methacrylate Methacrylic acid, 3-hydroxypropyl ester Propenoic acid, 2-methyl-, hydroxypropyl ester
<b>Inchi:</b>	InChI=1S/C7H12O3/c1-6(2)7(9)10-5-3-4-8/h8H,1,3-5H2,2H3
<b>InchiKey:</b>	GNSFRPWPOGYVLO-UHFFFAOYSA-N
<b>Formula:</b>	C7H12O3
<b>SMILES:</b>	C=C(C)C(=O)OCCCO
<b>Mol. weight [g/mol]:</b>	144.17
<b>CAS:</b>	2761-09-3

## Physical Properties

Property code	Value	Unit	Source
gf	-283.39	kJ/mol	Joback Method
hf	-469.20	kJ/mol	Joback Method
hfus	18.17	kJ/mol	Joback Method
hvap	56.42	kJ/mol	Joback Method
log10ws	-0.73		Crippen Method
logp	0.488		Crippen Method
mcvol	118.500	ml/mol	McGowan Method
pc	3439.94	kPa	Joback Method
tb	524.59	K	Joback Method
tc	700.10	K	Joback Method
tf	285.91	K	Joback Method
vc	0.453	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	269.82	J/molxK	524.59	Joback Method
cpg	279.15	J/molxK	553.84	Joback Method
cpg	288.11	J/molxK	583.09	Joback Method
cpg	296.68	J/molxK	612.34	Joback Method
cpg	304.90	J/molxK	641.59	Joback Method

cpg	312.75	J/mol×K	670.85	Joback Method
cpg	320.24	J/mol×K	700.10	Joback Method

## 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=C2761093&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C2761093&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>hvac:</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>mccol:</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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