

# (R)-(-)-2,2-Dimethyl-1,3-dioxolane-4-methanol

<b>Other names:</b>	(2,2-Dimethyl-1,3-dioxolan-4-yl)methanol, D-D-Acetone glycerol 1,3-Dioxolane-4-methanol, 2,2-dimethyl-, (R)- 1,3-Dioxolane-4-methanol, 2,2-dimethyl-, (4R)-
<b>Inchi:</b>	InChI=1S/C6H12O3/c1-6(2)8-4-5(3-7)9-6/h5,7H,3-4H2,1-2H3/t5-/m0/s1
<b>InchiKey:</b>	RNVYQYLELCKWAN-YFKPBYRVSA-N
<b>Formula:</b>	C6H12O3
<b>SMILES:</b>	CC1(C)OCC(CO)O1
<b>Mol. weight [g/mol]:</b>	132.16
<b>CAS:</b>	14347-78-5

## Physical Properties

Property code	Value	Unit	Source
chl	-3390.00	kJ/mol	NIST Webbook
gf	-286.07	kJ/mol	Joback Method
hf	-528.02	kJ/mol	Joback Method
hfus	20.05	kJ/mol	Joback Method
hvap	53.45	kJ/mol	Joback Method
log10ws	-0.39		Crippen Method
logp	0.130		Crippen Method
mcvol	102.150	ml/mol	McGowan Method
pc	4283.05	kPa	Joback Method
tb	493.61	K	Joback Method
tc	688.06	K	Joback Method
tf	301.90	K	Joback Method
vc	0.370	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	247.77	J/molxK	493.61	Joback Method
cpg	259.23	J/molxK	526.02	Joback Method
cpg	269.97	J/molxK	558.43	Joback Method
cpg	280.08	J/molxK	590.84	Joback Method

cpg	289.63	J/mol×K	623.24	Joback Method
cpg	298.69	J/mol×K	655.65	Joback Method
cpg	307.33	J/mol×K	688.06	Joback Method

## Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	345.70	K	1.00	NIST Webbook

## 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=C14347785&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C14347785&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>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>

## Legend

<b>chl:</b>	Standard liquid enthalpy of combustion
<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>tbrp:</b>	Boiling point at reduced pressure
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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