

# 1-Octanol, 2,2-dimethyl-

<b>Other names:</b>	2,2-Dimethyl-1-octanol 2,2-Dimethyl-1-octanol; 2,2-Dimethyloctanol 2,2-Dimethyloctanol
<b>Inchi:</b>	InChI=1S/C10H22O/c1-4-5-6-7-8-10(2,3)9-11/h11H,4-9H2,1-3H3
<b>InchiKey:</b>	KEXGXAGJHHCTKD-UHFFFAOYSA-N
<b>Formula:</b>	C10H22O
<b>SMILES:</b>	CCCCCCC(C)(C)CO
<b>Mol. weight [g/mol]:</b>	158.28
<b>CAS:</b>	2370-14-1

## Physical Properties

Property code	Value	Unit	Source
gf	-100.66	kJ/mol	Joback Method
hf	-410.71	kJ/mol	Joback Method
hfus	18.33	kJ/mol	Joback Method
hvap	53.24	kJ/mol	Joback Method
log10ws	-3.03		Crippen Method
logp	2.975		Crippen Method
mcvol	157.630	ml/mol	McGowan Method
pc	2340.56	kPa	Joback Method
tb	481.15 ± 3.00	K	NIST Webbook
tc	683.80	K	Joback Method
tf	265.70	K	Joback Method
vc	0.604	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	383.55	J/molxK	517.15	Joback Method
cpg	447.81	J/molxK	656.02	Joback Method
cpg	436.13	J/molxK	628.25	Joback Method
cpg	423.89	J/molxK	600.47	Joback Method
cpg	411.07	J/molxK	572.70	Joback Method
cpg	397.63	J/molxK	544.92	Joback Method

cpg	458.94	J/mol×K	683.80	Joback Method
dvisc	0.0001201	Paxs	517.15	Joback Method
dvisc	0.0002077	Paxs	475.24	Joback Method
dvisc	0.0003993	Paxs	433.33	Joback Method
dvisc	0.0008829	Paxs	391.43	Joback Method
dvisc	0.0023619	Paxs	349.52	Joback Method
dvisc	0.0082611	Paxs	307.61	Joback Method
dvisc	0.0428890	Paxs	265.70	Joback Method

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.63942e+01
Coeff. B	-4.78381e+03
Coeff. C	-7.49100e+01
Temperature range (K), min.	371.92
Temperature range (K), max.	506.56

## 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=C2370141&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C2370141&amp;Units=SI</a>
<b>The Yaws Handbook of Vapor Pressure:</b>	<a href="https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure">https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<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>pvap:</b>	Vapor 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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