

# 1,3-Dioxolane, 2-isobutyl

Other names:	1,3-Dioxolane, 2-(2-methylpropyl)
Inchi:	InChI=1S/C7H14O2/c1-6(2)5-7-8-3-4-9-7/h6-7H,3-5H2,1-2H3
InchiKey:	NLSSIIZCHYEPNV-UHFFFAOYSA-N
Formula:	C7H14O2
SMILES:	CC(C)CC1OCCO1
Mol. weight [g/mol]:	130.18

## Physical Properties

Property code	Value	Unit	Source
gf	-130.07	kJ/mol	Joback Method
hf	-396.61	kJ/mol	Joback Method
hfus	20.26	kJ/mol	Joback Method
hvap	40.06	kJ/mol	Joback Method
log10ws	-1.19		Crippen Method
logp	1.405		Crippen Method
mcvol	110.370	ml/mol	McGowan Method
pc	3380.21	kPa	Joback Method
rinpol	898.00		NIST Webbook
rinpol	906.00		NIST Webbook
rinpol	898.00		NIST Webbook
rinpol	932.00		NIST Webbook
rinpol	901.00		NIST Webbook
rinpol	946.00		NIST Webbook
rinpol	932.00		NIST Webbook
tb	428.30	K	Joback Method
tc	628.03	K	Joback Method
tf	217.69	K	Joback Method
vc	0.405	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	234.85	J/molxK	428.30	Joback Method
cpg	302.13	J/molxK	594.74	Joback Method

cpg	290.05	J/molxK	561.46	Joback Method
cpg	277.31	J/molxK	528.17	Joback Method
cpg	263.87	J/molxK	494.88	Joback Method
cpg	249.72	J/molxK	461.59	Joback Method
cpg	313.56	J/molxK	628.03	Joback Method
dvisc	0.0003974	Paxs	428.30	Joback Method
dvisc	0.0005289	Paxs	393.20	Joback Method
dvisc	0.0007446	Paxs	358.10	Joback Method
dvisc	0.0011292	Paxs	323.00	Joback Method
dvisc	0.0018954	Paxs	287.89	Joback Method
dvisc	0.0036737	Paxs	252.79	Joback Method
dvisc	0.0088142	Paxs	217.69	Joback Method

## Sources

<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=R69845&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R69845&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</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>rinpol:</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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