

# Benzene, 1,3-dimethoxy-4-decyl

<b>Inchi:</b>	InChI=1S/C18H30O2/c1-4-5-6-7-8-9-10-11-12-16-13-14-17(19-2)15-18(16)20-3/h13-15H
<b>InchiKey:</b>	ASWJLVTCMPSNO-UHFFFAOYSA-N
<b>Formula:</b>	C18H30O2
<b>SMILES:</b>	CCCCCCCCCc1ccc(OC)cc1OC
<b>Mol. weight [g/mol]:</b>	278.43

## Physical Properties

Property code	Value	Unit	Source
gf	-16.17	kJ/mol	Joback Method
hf	-465.70	kJ/mol	Joback Method
hfus	38.01	kJ/mol	Joback Method
hvap	64.08	kJ/mol	Joback Method
log10ws	-5.86		Crippen Method
logp	5.387		Crippen Method
mvol	252.460	ml/mol	McGowan Method
pc	1393.33	kPa	Joback Method
rmpol	2083.00		NIST Webbook
tb	692.72	K	Joback Method
tc	878.81	K	Joback Method
tf	388.54	K	Joback Method
vc	0.972	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	715.20	J/molxK	692.72	Joback Method
cpg	799.20	J/molxK	847.80	Joback Method
cpg	784.20	J/molxK	816.78	Joback Method
cpg	768.31	J/molxK	785.77	Joback Method
cpg	751.52	J/molxK	754.75	Joback Method
cpg	733.83	J/molxK	723.74	Joback Method
cpg	813.32	J/molxK	878.81	Joback Method
dvisc	0.0000737	Paxs	692.72	Joback Method
dvisc	0.0000945	Paxs	642.02	Joback Method

dvisc	0.0001265	Paxs	591.33	Joback Method
dvisc	0.0001787	Paxs	540.63	Joback Method
dvisc	0.0002713	Paxs	489.93	Joback Method
dvisc	0.0004534	Paxs	439.24	Joback Method
dvisc	0.0008665	Paxs	388.54	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=R142997&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R142997&amp;Units=SI</a>
<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>

## 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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