

# Decyl isobutyl ether

<b>Inchi:</b>	InChI=1S/C14H30O/c1-4-5-6-7-8-9-10-11-12-15-13-14(2)3/h14H,4-13H2,1-3H3
<b>InchiKey:</b>	XNFGYTNOACVQJS-UHFFFAOYSA-N
<b>Formula:</b>	C14H30O
<b>SMILES:</b>	CCCCCCCCCOCC(C)C
<b>Mol. weight [g/mol]:</b>	214.39

## Physical Properties

Property code	Value	Unit	Source
gf	-40.44	kJ/mol	Joback Method
hf	-469.79	kJ/mol	Joback Method
hfus	29.68	kJ/mol	Joback Method
hvap	48.78	kJ/mol	Joback Method
log10ws	-4.53		Crippen Method
logp	4.800		Crippen Method
mcvol	213.990	ml/mol	McGowan Method
pc	1512.85	kPa	Joback Method
rinpol	1427.00		NIST Webbook
rinpol	1427.00		NIST Webbook
tb	541.70	K	Joback Method
tc	704.16	K	Joback Method
tf	254.77	K	Joback Method
vc	0.832	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	536.54	J/molxK	541.70	Joback Method
cpg	554.67	J/molxK	568.78	Joback Method
cpg	572.12	J/molxK	595.85	Joback Method
cpg	588.92	J/molxK	622.93	Joback Method
cpg	605.06	J/molxK	650.01	Joback Method
cpg	620.57	J/molxK	677.09	Joback Method
cpg	635.45	J/molxK	704.16	Joback Method
dvisc	0.0057430	Paxs	254.77	Joback Method

dvisc	0.0018936	Paxs	302.59	Joback Method
dvisc	0.0008452	Paxs	350.41	Joback Method
dvisc	0.0004579	Paxs	398.24	Joback Method
dvisc	0.0002829	Paxs	446.06	Joback Method
dvisc	0.0001919	Paxs	493.88	Joback Method
dvisc	0.0001394	Paxs	541.70	Joback Method

## 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=U406325&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U406325&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.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.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>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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