

# Octadecyl propyl ether

<b>Inchi:</b>	InChI=1S/C21H44O/c1-3-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-21-22-20-4-2/h3-21H
<b>InchiKey:</b>	XIHDFPHFJXUOQA-UHFFFAOYSA-N
<b>Formula:</b>	C21H44O
<b>SMILES:</b>	CCCCCCCCCCCCCCCCCOCCC
<b>Mol. weight [g/mol]:</b>	312.57

## Physical Properties

Property code	Value	Unit	Source
gf	20.94	kJ/mol	Joback Method
hf	-608.99	kJ/mol	Joback Method
hfus	51.33	kJ/mol	Joback Method
hvap	64.75	kJ/mol	Joback Method
log10ws	-7.70		Crippen Method
logp	7.675		Crippen Method
mvol	312.620	ml/mol	McGowan Method
pc	946.16	kPa	Joback Method
rinpol	2180.00		NIST Webbook
tb	702.30	K	Joback Method
tc	866.33	K	Joback Method
tf	348.66	K	Joback Method
vc	1.230	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	935.43	J/molxK	702.30	Joback Method
cpg	956.63	J/molxK	729.64	Joback Method
cpg	976.93	J/molxK	756.98	Joback Method
cpg	996.35	J/molxK	784.32	Joback Method
cpg	1014.91	J/molxK	811.65	Joback Method
cpg	1032.64	J/molxK	838.99	Joback Method
cpg	1049.54	J/molxK	866.33	Joback Method
dvisc	0.0021329	Paxs	348.66	Joback Method
dvisc	0.0007851	Paxs	407.60	Joback Method

dvisc	0.0003720	Paxs	466.54	Joback Method
dvisc	0.0002084	Paxs	525.48	Joback Method
dvisc	0.0001312	Paxs	584.42	Joback Method
dvisc	0.0000899	Paxs	643.36	Joback Method
dvisc	0.0000657	Paxs	702.30	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=U406280&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U406280&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>

## 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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