

# Heptyl tetracosyl ether

**Inchi:** InChI=1S/C31H64O/c1-3-5-7-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-27-29  
**InchiKey:** GXGDJGZWPZTACY-UHFFFAOYSA-N  
**Formula:** C31H64O  
**SMILES:** CCCCCCCCCCCCCCCCCCCCCCCCCOCCCCCCC  
**Mol. weight [g/mol]:** 452.84

## Physical Properties

Property code	Value	Unit	Source
gf	105.14	kJ/mol	Joback Method
hf	-815.39	kJ/mol	Joback Method
hfus	77.23	kJ/mol	Joback Method
hvap	87.01	kJ/mol	Joback Method
log10ws	-11.89		Crippen Method
logp	11.575		Crippen Method
mvol	453.520	ml/mol	McGowan Method
pc	563.94	kPa	Joback Method
rinpol	3161.00		NIST Webbook
rinpol	3161.00		NIST Webbook
tb	931.10	K	Joback Method
tc	1157.26	K	Joback Method
tf	461.36	K	Joback Method
vc	1.790	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1586.38	J/molxK	931.10	Joback Method
cpg	1614.95	J/molxK	968.79	Joback Method
cpg	1641.60	J/molxK	1006.49	Joback Method
cpg	1666.45	J/molxK	1044.18	Joback Method
cpg	1689.59	J/molxK	1081.87	Joback Method
cpg	1711.11	J/molxK	1119.57	Joback Method
cpg	1731.12	J/molxK	1157.26	Joback Method
dvisc	0.0006009	Paxs	461.36	Joback Method

dvisc	0.0002095	Paxs	539.65	Joback Method
dvisc	0.0000954	Paxs	617.94	Joback Method
dvisc	0.0000518	Paxs	696.23	Joback Method
dvisc	0.0000319	Paxs	774.52	Joback Method
dvisc	0.0000214	Paxs	852.81	Joback Method
dvisc	0.0000154	Paxs	931.10	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U406398&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U406398&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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