

# Pentyl tert-pentyl ether

<b>Inchi:</b>	InChI=1S/C10H22O/c1-5-7-8-9-11-10(3,4)6-2/h5-9H2,1-4H3
<b>InchiKey:</b>	KFSYJTMPRJSZHA-UHFFFAOYSA-N
<b>Formula:</b>	C10H22O
<b>SMILES:</b>	CCCCCOC(C)(C)CC
<b>Mol. weight [g/mol]:</b>	158.28

## Physical Properties

Property code	Value	Unit	Source
gf	-68.84	kJ/mol	Joback Method
hf	-390.70	kJ/mol	Joback Method
hfus	15.43	kJ/mol	Joback Method
hvap	38.97	kJ/mol	Joback Method
log10ws	-3.21		Crippen Method
logp	3.382		Crippen Method
mcvol	157.630	ml/mol	McGowan Method
pc	2111.94	kPa	Joback Method
rinpol	1004.00		NIST Webbook
tb	447.39	K	Joback Method
tc	619.76	K	Joback Method
tf	227.11	K	Joback Method
vc	0.603	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	344.48	J/molxK	447.39	Joback Method
cpg	360.56	J/molxK	476.12	Joback Method
cpg	375.98	J/molxK	504.85	Joback Method
cpg	390.75	J/molxK	533.57	Joback Method
cpg	404.90	J/molxK	562.30	Joback Method
cpg	418.43	J/molxK	591.03	Joback Method
cpg	431.37	J/molxK	619.76	Joback Method
dvisc	0.0068881	Paxs	227.11	Joback Method
dvisc	0.0025611	Paxs	263.82	Joback Method

dvisc	0.0012126	Paxs	300.54	Joback Method
dvisc	0.0006756	Paxs	337.25	Joback Method
dvisc	0.0004223	Paxs	373.96	Joback Method
dvisc	0.0002870	Paxs	410.68	Joback Method
dvisc	0.0002079	Paxs	447.39	Joback Method

## Sources

<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>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=R559830&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R559830&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>

## 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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