

# butyl pentacosanoate

**Inchi:** InChI=1S/C29H58O2/c1-3-5-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-2  
**InchiKey:** ZICMQILYJMPEKN-UHFFFAOYSA-N  
**Formula:** C29H58O2  
**SMILES:** CCCCCCCCCCCCCCCCCCCCCCCCCCCCC(=O)OCCCC  
**Mol. weight [g/mol]:** 438.77

## Physical Properties

Property code	Value	Unit	Source
gf	-40.62	kJ/mol	Joback Method
hf	-886.69	kJ/mol	Joback Method
hfus	73.65	kJ/mol	Joback Method
hvap	89.30	kJ/mol	Joback Method
log10ws	-10.82		Crippen Method
logp	10.322		Crippen Method
mvol	426.910	ml/mol	McGowan Method
pc	638.98	kPa	Joback Method
rinpol	3073.76		NIST Webbook
rinpol	3073.76		NIST Webbook
tb	939.21	K	Joback Method
tc	1161.87	K	Joback Method
tf	488.75	K	Joback Method
vc	1.683	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1482.38	J/molxK	939.21	Joback Method
cpg	1592.51	J/molxK	1124.76	Joback Method
cpg	1573.64	J/molxK	1087.65	Joback Method
cpg	1553.27	J/molxK	1050.54	Joback Method
cpg	1531.33	J/molxK	1013.43	Joback Method
cpg	1507.73	J/molxK	976.32	Joback Method
cpg	1609.96	J/molxK	1161.87	Joback Method
dvisc	0.0000197	Paxs	939.21	Joback Method

dvisc	0.0000270	Paxs	864.13	Joback Method
dvisc	0.0000393	Paxs	789.06	Joback Method
dvisc	0.0000618	Paxs	713.98	Joback Method
dvisc	0.0001084	Paxs	638.90	Joback Method
dvisc	0.0002206	Paxs	563.83	Joback Method
dvisc	0.0005585	Paxs	488.75	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=R437453&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R437453&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>

## 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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