

# butyl 2-ethyldecanoate

<b>Inchi:</b>	InChI=1S/C16H32O2/c1-4-7-9-10-11-12-13-15(6-3)16(17)18-14-8-5-2/h15H,4-14H2,1-3H
<b>InchiKey:</b>	XBPZUUSOMIXBQB-UHFFFAOYSA-N
<b>Formula:</b>	C16H32O2
<b>SMILES:</b>	CCCCCCCCC(CC)C(=O)OCCCC
<b>Mol. weight [g/mol]:</b>	256.42

## Physical Properties

Property code	Value	Unit	Source
gf	-152.52	kJ/mol	Joback Method
hf	-623.65	kJ/mol	Joback Method
hfus	36.46	kJ/mol	Joback Method
hvap	59.98	kJ/mol	Joback Method
log10ws	-5.14		Crippen Method
logp	5.107		Crippen Method
mcvol	243.740	ml/mol	McGowan Method
pc	1371.74	kPa	Joback Method
ripol	1860.00		NIST Webbook
ripol	1860.00		NIST Webbook
tb	641.33	K	Joback Method
tc	810.93	K	Joback Method
tf	327.24	K	Joback Method
vc	0.950	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	676.23	J/molxK	641.33	Joback Method
cpg	694.40	J/molxK	669.60	Joback Method
cpg	711.78	J/molxK	697.86	Joback Method
cpg	728.40	J/molxK	726.13	Joback Method
cpg	744.26	J/molxK	754.40	Joback Method
cpg	759.39	J/molxK	782.67	Joback Method
cpg	773.80	J/molxK	810.93	Joback Method
dvisc	0.0031617	Paxs	327.24	Joback Method

dvisc	0.0012389	Paxs	379.59	Joback Method
dvisc	0.0006092	Paxs	431.94	Joback Method
dvisc	0.0003493	Paxs	484.28	Joback Method
dvisc	0.0002232	Paxs	536.63	Joback Method
dvisc	0.0001544	Paxs	588.98	Joback Method
dvisc	0.0001135	Paxs	641.33	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=R493260&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R493260&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>ripol:</b>	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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