

# Undecane, 5-ethyl-5-propyl-

<b>Other names:</b>	Butyl(ethyl)(hexyl)(propyl)methane
<b>Inchi:</b>	InChI=1S/C16H34/c1-5-9-11-12-15-16(8-4,13-7-3)14-10-6-2/h5-15H2,1-4H3
<b>InchiKey:</b>	MEBZNFYSYULDMSV-UHFFFAOYSA-N
<b>Formula:</b>	C16H34
<b>SMILES:</b>	CCCCCCC(CC)(CCC)CCCC
<b>Mol. weight [g/mol]:</b>	226.44
<b>CAS:</b>	2755-07-9

## Physical Properties

Property code	Value	Unit	Source
gf	86.68	kJ/mol	Joback Method
hf	-382.32	kJ/mol	Joback Method
hfus	29.78	kJ/mol	Joback Method
hvap	49.91	kJ/mol	Joback Method
log10ws	-6.28		Crippen Method
logp	6.344		Crippen Method
mcvol	236.300	ml/mol	McGowan Method
pc	1336.86	kPa	Joback Method
tb	562.25	K	Joback Method
tc	728.23	K	Joback Method
tf	198.00 ± 5.00	K	NIST Webbook
vc	0.920	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	614.09	J/mol×K	562.25	Joback Method
cpg	706.10	J/mol×K	700.57	Joback Method
cpg	689.32	J/mol×K	672.91	Joback Method
cpg	671.77	J/mol×K	645.24	Joback Method
cpg	653.40	J/mol×K	617.58	Joback Method
cpg	634.19	J/mol×K	589.91	Joback Method
cpg	722.12	J/mol×K	728.23	Joback Method
dvisc	0.0001394	Paxs	562.25	Joback Method

dvisc	0.0001966	Paxs	513.96	Joback Method
dvisc	0.0002978	Paxs	465.67	Joback Method
dvisc	0.0004966	Paxs	417.38	Joback Method
dvisc	0.0009465	Paxs	369.08	Joback Method
dvisc	0.0021907	Paxs	320.79	Joback Method
dvisc	0.0068269	Paxs	272.50	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=C2755079&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C2755079&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>cp<sub>g</sub>:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<b>g<sub>f</sub>:</b>	Standard Gibbs free energy of formation
<b>h<sub>f</sub>:</b>	Enthalpy of formation at standard conditions
<b>h<sub>fus</sub>:</b>	Enthalpy of fusion at standard conditions
<b>h<sub>vap</sub>:</b>	Enthalpy of vaporization at standard conditions
<b>log<sub>10</sub>ws:</b>	Log <sub>10</sub> of Water solubility in mol/l
<b>log<sub>p</sub>:</b>	Octanol/Water partition coefficient
<b>mc<sub>vol</sub>:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<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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