

# Cyclooctadecane, ethyl-

<b>Inchi:</b>	InChI=1S/C20H40/c1-2-20-18-16-14-12-10-8-6-4-3-5-7-9-11-13-15-17-19-20/h20H,2-19H
<b>InchiKey:</b>	FNBICTKTBOBEOK-UHFFFAOYSA-N
<b>Formula:</b>	C20H40
<b>SMILES:</b>	CCC1CCCCCCCCCCCCCCCC1
<b>Mol. weight [g/mol]:</b>	280.53

## Physical Properties

Property code	Value	Unit	Source
gf	-3.23	kJ/mol	Joback Method
hf	-475.73	kJ/mol	Joback Method
hfus	14.19	kJ/mol	Joback Method
hvap	62.61	kJ/mol	Joback Method
log10ws	-7.85		Crippen Method
logp	7.658		Crippen Method
mcvol	281.800	ml/mol	McGowan Method
pc	1442.44	kPa	Joback Method
tb	727.79	K	Joback Method
tc	976.43	K	Joback Method
tf	280.30	K	Joback Method
vc	0.993	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	889.41	J/molxK	727.79	Joback Method
cpg	1029.73	J/molxK	934.99	Joback Method
cpg	1007.85	J/molxK	893.55	Joback Method
cpg	982.83	J/molxK	852.11	Joback Method
cpg	954.72	J/molxK	810.67	Joback Method
cpg	923.56	J/molxK	769.23	Joback Method
cpg	1048.40	J/molxK	976.43	Joback Method
dvisc	0.0000021	Paxs	727.79	Joback Method
dvisc	0.0000044	Paxs	653.21	Joback Method
dvisc	0.0000116	Paxs	578.63	Joback Method

dvisc	0.0000403	Paxs	504.04	Joback Method
dvisc	0.0002162	Paxs	429.46	Joback Method
dvisc	0.0023535	Paxs	354.88	Joback Method
dvisc	0.0912409	Paxs	280.30	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U151225&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U151225&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>
<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>hvac:</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>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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