

# 1,4-Diethylcyclohexane

Inchi:	InChI=1S/C10H20/c1-3-9-5-7-10(4-2)8-6-9/h9-10H,3-8H2,1-2H3
InchiKey:	SMAKEJNOUFLEEEJ-UHFFFAOYSA-N
Formula:	C10H20
SMILES:	CCC1CCC(CC)CC1
Mol. weight [g/mol]:	140.27
CAS:	1679-00-1

## Physical Properties

Property code	Value	Unit	Source
gf	50.06	kJ/mol	Joback Method
hf	-215.75	kJ/mol	Joback Method
hfus	14.56	kJ/mol	Joback Method
hvap	37.97	kJ/mol	Joback Method
log10ws	-3.42		Crippen Method
logp	3.613		Crippen Method
mcvol	140.900	ml/mol	McGowan Method
pc	2485.07	kPa	Joback Method
tb	458.70 ± 3.00	K	NIST Webbook
tc	639.52	K	Joback Method
tf	205.60	K	Joback Method
vc	0.527	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	299.73	J/molxK	443.08	Joback Method
cpg	405.38	J/molxK	639.52	Joback Method
cpg	389.89	J/molxK	606.78	Joback Method
cpg	373.57	J/molxK	574.04	Joback Method
cpg	356.42	J/molxK	541.30	Joback Method
cpg	338.41	J/molxK	508.56	Joback Method
cpg	319.51	J/molxK	475.82	Joback Method
cpl	261.10	J/molxK	313.00	NIST Webbook
dvisc	0.0002646	Paxs	443.08	Joback Method

dvisc	0.0003397	Paxs	403.50	Joback Method
dvisc	0.0004605	Paxs	363.92	Joback Method
dvisc	0.0006724	Paxs	324.34	Joback Method
dvisc	0.0010906	Paxs	284.76	Joback Method
dvisc	0.0020679	Paxs	245.18	Joback Method
dvisc	0.0050164	Paxs	205.60	Joback Method

## Sources

<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=C1679001&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C1679001&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>

## Legend

<b>cp<sub>g</sub>:</b>	Ideal gas heat capacity
<b>cp<sub>l</sub>:</b>	Liquid phase 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>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>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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