

# Cyclobutane, 1,2-diethyl-

Inchi:	InChI=1S/C8H16/c1-3-7-5-6-8(7)4-2/h7-8H,3-6H2,1-2H3
InchiKey:	SXWCZDYKTCYCIC-UHFFFAOYSA-N
Formula:	C8H16
SMILES:	CCC1CCC1CC
Mol. weight [g/mol]:	112.21
CAS:	61141-83-1

## Physical Properties

Property code	Value	Unit	Source
gf	57.42	kJ/mol	Joback Method
hf	-162.15	kJ/mol	Joback Method
hfus	13.58	kJ/mol	Joback Method
hvap	33.18	kJ/mol	Joback Method
log10ws	-2.58		Crippen Method
logp	2.833		Crippen Method
mvol	112.720	ml/mol	McGowan Method
pc	2878.12	kPa	Joback Method
tb	388.78	K	Joback Method
tc	573.13	K	Joback Method
tf	190.10	K	Joback Method
vc	0.431	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	215.07	J/mol×K	388.78	Joback Method
cpg	230.79	J/mol×K	419.50	Joback Method
cpg	245.81	J/mol×K	450.23	Joback Method
cpg	260.15	J/mol×K	480.95	Joback Method
cpg	273.84	J/mol×K	511.68	Joback Method
cpg	286.88	J/mol×K	542.40	Joback Method
cpg	299.31	J/mol×K	573.13	Joback Method
dvisc	0.0012186	Paxs	190.10	Joback Method
dvisc	0.0008162	Paxs	223.21	Joback Method

dvisc	0.0006064	Paxs	256.33	Joback Method
dvisc	0.0004822	Paxs	289.44	Joback Method
dvisc	0.0004019	Paxs	322.55	Joback Method
dvisc	0.0003465	Paxs	355.67	Joback Method
dvisc	0.0003064	Paxs	388.78	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=C61141831&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C61141831&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>

## 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>mccvol:</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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