

Cyclobutane, 1,2-diethyl-, cis-

Other names:	1,2-Diethylcyclobutane, (Z)-
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:	61141-50-2

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
mcvol	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 ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	215.07	J/mol×K	388.78	Joback Method
cpg	286.88	J/mol×K	542.40	Joback Method
cpg	273.84	J/mol×K	511.68	Joback Method
cpg	260.15	J/mol×K	480.95	Joback Method
cpg	245.81	J/mol×K	450.23	Joback Method
cpg	230.79	J/mol×K	419.50	Joback Method
cpg	299.31	J/mol×K	573.13	Joback Method
dvisc	0.0003064	Paxs	388.78	Joback Method

dvisc	0.0003465	Paxs	355.67	Joback Method
dvisc	0.0004019	Paxs	322.55	Joback Method
dvisc	0.0004822	Paxs	289.44	Joback Method
dvisc	0.0006064	Paxs	256.33	Joback Method
dvisc	0.0008162	Paxs	223.21	Joback Method
dvisc	0.0012186	Paxs	190.10	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C61141502&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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