Cyclobutane, 1,2-diethyl-, trans-

Other names: 1,2-Diethylcyclobutane, (E)-
Inchi: InChI=1S/C8H16/c1-3-7-5-6-8(7)4-2/h7-8H,3-6H2,1-2H3/t7-,8-/m0/s1
InchiKey: SXWCZDYKTCYCIC-YUMQZZPRSA-N
Formula: C8H16
SMILES: CCC1CCC1CC
Mol. weight [g/mol]: 112.21
CAS: 19341-98-1

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
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	m3/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	Pa×s	190.10	Joback Method

dvisc	0.0008162	Pa×s	223.21	Joback Method
dvisc	0.0006064	Pa×s	256.33	Joback Method
dvisc	0.0004822	Pa×s	289.44	Joback Method
dvisc	0.0004019	Pa×s	322.55	Joback Method
dvisc	0.0003465	Pa×s	355.67	Joback Method
dvisc	0.0003064	Pa×s	388.78	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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=C19341981&Units=SI

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
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume