

Cyclopentane, 1,1'-ethylidenebis-

Other names:	Ethane, 1,1-dicyclopentyl- 1,1-Dicyclopentylethane
Inchi:	InChI=1S/C12H22/c1-10(11-6-2-3-7-11)12-8-4-5-9-12/h10-12H,2-9H2,1H3
InchiKey:	XWKIKXOZAGBKSO-UHFFFAOYSA-N
Formula:	C12H22
SMILES:	CC(C1CCCC1)C1CCCC1
Mol. weight [g/mol]:	166.30
CAS:	4413-21-2

Physical Properties

Property code	Value	Unit	Source
gf	120.82	kJ/mol	Joback Method
hf	-175.33	kJ/mol	Joback Method
hfus	11.18	kJ/mol	Joback Method
hvap	42.43	kJ/mol	Joback Method
log10ws	-3.91		Crippen Method
logp	4.003		Crippen Method
mvol	158.220	ml/mol	McGowan Method
pc	2495.01	kPa	Joback Method
tb	504.08	K	Joback Method
tc	724.27	K	Joback Method
tf	153.15 ± 1.00	K	NIST Webbook
vc	0.584	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	383.18	J/mol×K	504.08	Joback Method
cpg	407.35	J/mol×K	540.78	Joback Method
cpg	430.04	J/mol×K	577.48	Joback Method
cpg	451.32	J/mol×K	614.18	Joback Method
cpg	471.26	J/mol×K	650.88	Joback Method
cpg	489.91	J/mol×K	687.57	Joback Method
cpg	507.34	J/mol×K	724.27	Joback Method

dvisc	0.0074917	Paxs	231.80	Joback Method
dvisc	0.0029910	Paxs	277.18	Joback Method
dvisc	0.0015462	Paxs	322.56	Joback Method
dvisc	0.0009406	Paxs	367.94	Joback Method
dvisc	0.0006381	Paxs	413.32	Joback Method
dvisc	0.0004675	Paxs	458.70	Joback Method
dvisc	0.0003622	Paxs	504.08	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4413212&Units=SI
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

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

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