Cyclopentanecarboxaldehyde

Other names:	Cyclopentanealdehyde
	Cyclopentylformaldehyde
	Formylcyclopentane
	Cyclopentyl aldehyde
	Cyclopentane-1-carboxaldehyde
	cyclopentanecarbaldehyde
Inchi:	InChI=1S/C6H10O/c7-5-6-3-1-2-4-6/h5-6H,1-4H2
InchiKey:	VELDYOPRLMJFIK-UHFFFAOYSA-N
Formula:	C6H10O
SMILES:	O=CC1CCCC1
Mol. weight [g/mol]:	98.14
CAS:	872-53-7

Physical Properties

Property code	Value	Unit	Source
gf	-63.33	kJ/mol	Joback Method
hf	-192.27	kJ/mol	Joback Method
hfus	7.52	kJ/mol	Joback Method
hvap	35.93	kJ/mol	Joback Method
log10ws	-1.27		Crippen Method
logp	1.375		Crippen Method
mcvol	86.110	ml/mol	McGowan Method
pc	4216.56	kPa	Joback Method
rinpol	857.00		NIST Webbook
ripol	1171.00		NIST Webbook
ripol	1170.00		NIST Webbook
tb	400.62	K	Joback Method
tc	604.41	K	Joback Method
tf	210.28	K	Joback Method
vc	0.330	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	159.16	J/mol×K	400.62	Joback Method
cpg	216.72	J/mol×K	570.44	Joback Method
cpg	206.48	J/mol×K	536.48	Joback Method
cpg	195.63	J/mol×K	502.51	Joback Method
cpg	184.14	J/mol×K	468.55	Joback Method
cpg	171.99	J/mol×K	434.58	Joback Method
cpg	226.37	J/mol×K	604.41	Joback Method
dvisc	0.0003992	Pa×s	400.62	Joback Method
dvisc	0.0004926	Pa×s	368.90	Joback Method
dvisc	0.0006323	Pa×s	337.17	Joback Method
dvisc	0.0008548	Pa×s	305.45	Joback Method
dvisc	0.0012392	Pa×s	273.73	Joback Method
dvisc	0.0019804	Pa×s	242.00	Joback Method
dvisc	0.0036458	Pa×s	210.28	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=C872537&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
mcvol: McGowan's characteristic volume
pc: Critical Pressure
rinpol: Non-polar retention indices
ripol: Polar retention indices
tb: Normal Boiling Point Temperature

tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume