

1-Cyclopentene-1-carboxylic acid

Other names:	1-Cyclopentenecarboxylic acid Isoaleprolic acid
Inchi:	InChI=1S/C6H8O2/c7-6(8)5-3-1-2-4-5/h3H,1-2,4H2,(H,7,8)
InchiKey:	PYZPBDTPRQYKG-UHFFFAOYSA-N
Formula:	C6H8O2
SMILES:	O=C(O)C1=CCCC1
Mol. weight [g/mol]:	112.13
CAS:	1560-11-8

Physical Properties

Property code	Value	Unit	Source
gf	-201.51	kJ/mol	Joback Method
hf	-304.85	kJ/mol	Joback Method
hfus	10.68	kJ/mol	Joback Method
hvap	53.89	kJ/mol	Joback Method
log10ws	-1.18		Crippen Method
logp	1.181		Crippen Method
mcvol	87.680	ml/mol	McGowan Method
pc	5065.79	kPa	Joback Method
tb	506.82	K	Joback Method
tc	708.10	K	Joback Method
tf	296.55	K	Joback Method
vc	0.325	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	188.09	J/mol×K	506.82	Joback Method
cpg	228.89	J/mol×K	674.55	Joback Method
cpg	221.72	J/mol×K	641.01	Joback Method
cpg	214.08	J/mol×K	607.46	Joback Method
cpg	205.95	J/mol×K	573.91	Joback Method
cpg	197.29	J/mol×K	540.37	Joback Method
cpg	235.61	J/mol×K	708.10	Joback Method

dvisc	0.0002151	Pa×s	506.82	Joback Method
dvisc	0.0003267	Pa×s	471.77	Joback Method
dvisc	0.0005307	Pa×s	436.73	Joback Method
dvisc	0.0009383	Pa×s	401.69	Joback Method
dvisc	0.0018500	Pa×s	366.64	Joback Method
dvisc	0.0042102	Pa×s	331.60	Joback Method
dvisc	0.0116370	Pa×s	296.55	Joback Method

Sources

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=C1560118&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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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