

1,3-Cyclopentanedicarboxylic acid

Inchi:	InChI=1S/C7H10O4/c8-6(9)4-1-2-5(3-4)7(10)11/h4-5H,1-3H2,(H,8,9)(H,10,11)
InchiKey:	LNGJOYPCXLTKL-UHFFFAOYSA-N
Formula:	C7H10O4
SMILES:	O=C(O)C1CCC(C(=O)O)C1
Mol. weight [g/mol]:	158.15
CAS:	4056-78-4

Physical Properties

Property code	Value	Unit	Source
gf	-494.58	kJ/mol	Joback Method
hf	-677.29	kJ/mol	Joback Method
hfus	20.27	kJ/mol	Joback Method
hvap	77.97	kJ/mol	Joback Method
log10ws	-0.36		Crippen Method
logp	0.572		Crippen Method
mcvol	113.510	ml/mol	McGowan Method
pc	4869.76	kPa	Joback Method
tb	662.27	K	Joback Method
tc	854.29	K	Joback Method
tf	396.81	K	Joback Method
vc	0.417	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	314.07	J/mol×K	662.27	Joback Method
cpg	323.33	J/mol×K	694.27	Joback Method
cpg	332.03	J/mol×K	726.28	Joback Method
cpg	340.19	J/mol×K	758.28	Joback Method
cpg	347.81	J/mol×K	790.28	Joback Method
cpg	354.92	J/mol×K	822.28	Joback Method
cpg	361.53	J/mol×K	854.29	Joback Method
dvisc	0.0047869	Pa×s	396.81	Joback Method
dvisc	0.0015099	Pa×s	441.05	Joback Method

dvisc	0.0005878	Pa×s	485.30	Joback Method
dvisc	0.0002679	Pa×s	529.54	Joback Method
dvisc	0.0001378	Pa×s	573.78	Joback Method
dvisc	0.0000780	Pa×s	618.03	Joback Method
dvisc	0.0000476	Pa×s	662.27	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4056784&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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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