Cyclopentanepropanoic acid

Other names:	Cyclopentanepropionic acid
	Cyclopentylpropionic acid
	Propionic acid, 3-cyclopentyl-
	3-Cyclopentylpropionic acid
	3-Cyclopentylpropanoic acid
Inchi:	InChI=1S/C8H14O2/c9-8(10)6-5-7-3-1-2-4-7/h7H,1-6H2,(H,9,10)
InchiKey:	ZRPLANDPDWYOMZ-UHFFFAOYSA-N
Formula:	C8H14O2
SMILES:	O=C(O)CCC1CCCC1
Mol. weight [g/mol]:	142.20
CAS:	140-77-2

Physical Properties

Property code	Value	Unit	Source
gf	-212.71	kJ/mol	Joback Method
hf	-412.78	kJ/mol	Joback Method
hfus	16.10	kJ/mol	Joback Method
hvap	57.08	kJ/mol	Joback Method
log10ws	-1.92		Crippen Method
logp	2.041		Crippen Method
mcvol	120.160	ml/mol	McGowan Method
pc	3668.65	kPa	Joback Method
ripol	2169.00		NIST Webbook
tb	543.77	K	Joback Method
tc	736.63	K	Joback Method
tf	301.57	K	Joback Method
vc	0.450	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	295.19	J/mol×K	543.77	Joback Method
cpg	308.12	J/mol×K	575.91	Joback Method
cpg	320.34	J/mol×K	608.06	Joback Method

cpg	331.90	J/mol×K	640.20	Joback Method
cpg	342.82	J/mol×K	672.35	Joback Method
cpg	353.11	J/mol×K	704.49	Joback Method
cpg	362.81	J/mol×K	736.63	Joback Method
dvisc	0.0144008	Pa×s	301.57	Joback Method
dvisc	0.0045550	Pa×s	341.94	Joback Method
dvisc	0.0018372	Pa×s	382.30	Joback Method
dvisc	0.0008814	Pa×s	422.67	Joback Method
dvisc	0.0004806	Pa×s	463.04	Joback Method
dvisc	0.0002888	Pa×s	503.40	Joback Method
dvisc	0.0001872	Pa×s	543.77	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	404.20	K	1.60	NIST Webbook

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=C140772&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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume