Butanoic acid, cyclopentyl ester

Other names:	Cyclopentyl butyrate
	Cyclopentyl butanoate
Inchi:	InChI=1S/C9H16O2/c1-2-5-9(10)11-8-6-3-4-7-8/h8H,2-7H2,1H3
InchiKey:	OZORRWASBYZFPY-UHFFFAOYSA-N
Formula:	C9H16O2
SMILES:	CCCC(=O)OC1CCCC1
Mol. weight [g/mol]:	156.22
CAS:	6290-13-7

Physical Properties

Property code	Value	Unit	Source
gf	-172.47	kJ/mol	Joback Method
hf	-413.41	kJ/mol	Joback Method
hfus	15.79	kJ/mol	Joback Method
hvap	45.04	kJ/mol	Joback Method
log10ws	-2.46		Crippen Method
logp	2.272		Crippen Method
mcvol	134.250	ml/mol	McGowan Method
pc	2902.98	kPa	Joback Method
ripol	1387.00		NIST Webbook
tb	496.89	K	Joback Method
tc	697.79	K	Joback Method
tf	274.25	K	Joback Method
vc	0.504	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	308.29	J/mol×K	496.89	Joback Method
cpg	324.35	J/mol×K	530.37	Joback Method
cpg	339.64	J/mol×K	563.86	Joback Method
cpg	354.15	J/mol×K	597.34	Joback Method
cpg	367.91	J/mol×K	630.82	Joback Method
cpg	380.94	J/mol×K	664.31	Joback Method

cpg	393.25	J/mol×K	697.79	Joback Method
dvisc	0.0033301	Pa×s	274.25	Joback Method
dvisc	0.0017834	Pa×s	311.36	Joback Method
dvisc	0.0010909	Pa×s	348.46	Joback Method
dvisc	0.0007336	Pa×s	385.57	Joback Method
dvisc	0.0005289	Pa×s	422.68	Joback Method
dvisc	0.0004019	Pa×s	459.78	Joback Method
dvisc	0.0003183	Pa×s	496.89	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=C6290137&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
ripol: Polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.