1-hydroxy-3-phenyl-2-propanone

Inchi: InChI=1S/C9H10O2/c10-7-9(11)6-8-4-2-1-3-5-8/h1-5,10H,6-7H2
InchiKey: QLCZRWKIQPLYFS-UHFFFAOYSA-N
Formula: C9H10O2
SMILES: O=C(CO)Cc1ccccc1
Mol. weight [g/mol]: 150.17

Physical Properties

Property code	Value	Unit	Source
gf	-128.43	kJ/mol	Joback Method
hf	-257.37	kJ/mol	Joback Method
hfus	18.79	kJ/mol	Joback Method
hvap	61.33	kJ/mol	Joback Method
log10ws	-1.24		Crippen Method
logp	0.790		Crippen Method
mcvol	121.350	ml/mol	McGowan Method
pc	3925.85	kPa	Joback Method
ripol	2303.00		NIST Webbook
ripol	2303.00		NIST Webbook
tb	578.05	K	Joback Method
tc	781.24	K	Joback Method
tf	328.36	K	Joback Method
vc	0.457	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	281.36	J/mol×K	578.05	Joback Method
cpg	291.87	J/mol×K	611.92	Joback Method
cpg	301.73	J/mol×K	645.78	Joback Method
cpg	310.96	J/mol×K	679.65	Joback Method
cpg	319.60	J/mol×K	713.51	Joback Method
cpg	327.67	J/mol×K	747.38	Joback Method
cpg	335.20	J/mol×K	781.24	Joback Method
dvisc	0.0068844	Pa×s	328.36	Joback Method

dvisc	0.0023345	Pa×s	369.98	Joback Method
dvisc	0.0009851	Pa×s	411.59	Joback Method
dvisc	0.0004871	Pa×s	453.20	Joback Method
dvisc	0.0002711	Pa×s	494.82	Joback Method
dvisc	0.0001653	Pa×s	536.43	Joback Method
dvisc	0.0001082	Pa×s	578.05	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=R389725&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