p-Propionoxybenzaldehyde

Other names:	4-n-Propionyloxybenzaldehyde
	Benzaldehyde, 4-(1-oxopropoxy)-
Inchi:	InChI=1S/C10H10O3/c1-2-10(12)13-9-5-3-8(7-11)4-6-9/h3-7H,2H2,1H3
InchiKey:	NKXPJXVTMWLHBC-UHFFFAOYSA-N
Formula:	C10H10O3
SMILES:	CCC(=O)Oc1ccc(C=O)cc1
Mol. weight [g/mol]:	178.18
CAS:	50262-48-1

Physical Properties

Property code	Value	Unit	Source
gf	-197.34	kJ/mol	Joback Method
hf	-355.05	kJ/mol	Joback Method
hfus	20.38	kJ/mol	Joback Method
hvap	56.67	kJ/mol	Joback Method
log10ws	-2.45		Crippen Method
logp	1.814		Crippen Method
mcvol	137.010	ml/mol	McGowan Method
pc	3295.37	kPa	Joback Method
tb	584.81	K	Joback Method
tc	801.61	K	Joback Method
tf	355.56	K	Joback Method
vc	0.528	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	316.66	J/mol×K	584.81	Joback Method
cpg	368.64	J/mol×K	765.48	Joback Method
cpg	359.60	J/mol×K	729.34	Joback Method
cpg	349.89	J/mol×K	693.21	Joback Method
cpg	339.51	J/mol×K	657.08	Joback Method
cpg	328.43	J/mol×K	620.94	Joback Method
cpg	377.02	J/mol×K	801.61	Joback Method

dvisc	0.0002484	Pa×s	584.81	Joback Method
dvisc	0.0003078	Pa×s	546.60	Joback Method
dvisc	0.0003940	Pa×s	508.39	Joback Method
dvisc	0.0005249	Pa×s	470.18	Joback Method
dvisc	0.0007358	Pa×s	431.98	Joback Method
dvisc	0.0011012	Pa×s	393.77	Joback Method
dvisc	0.0017973	Pa×s	355.56	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	406.50 ± 2.50	K	0.07	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C50262481&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
tbrp: Boiling point at reduced pressure

tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume