Vinylbenzaldehyde

Inchi: InChI=1S/C9H8O/c1-2-8-3-5-9(7-10)6-4-8/h2-7H,1H2
InchiKey: QBFNGLBSVFKILI-UHFFFAOYSA-N
Formula: C9H8O
SMILES: C=Cc1ccc(C=O)cc1
Mol. weight [g/mol]: 132.16
CAS: 43145-54-6

Physical Properties

Property code	Value	Unit	Source
gf	116.00	kJ/mol	Joback Method
hf	35.82	kJ/mol	Joback Method
hfus	13.73	kJ/mol	Joback Method
hvap	44.62	kJ/mol	Joback Method
log10ws	-2.54		Crippen Method
logp	2.142		Crippen Method
mcvol	111.180	ml/mol	McGowan Method
pc	3673.09	kPa	Joback Method
ripol	2066.00		NIST Webbook
ripol	2066.00		NIST Webbook
tb	482.32	K	Joback Method
tc	701.12	K	Joback Method
tf	270.37	K	Joback Method
vc	0.429	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	217.85	J/mol×K	482.32	Joback Method
cpg	267.95	J/mol×K	664.66	Joback Method
cpg	259.24	J/mol×K	628.19	Joback Method
cpg	249.91	J/mol×K	591.72	Joback Method
cpg	239.93	J/mol×K	555.25	Joback Method
cpg	229.25	J/mol×K	518.79	Joback Method
cpg	276.06	J/mol×K	701.12	Joback Method

dvisc	0.0002836	Pa×s	482.32	Joback Method
dvisc	0.0003490	Pa×s	447.00	Joback Method
dvisc	0.0004452	Pa×s	411.67	Joback Method
dvisc	0.0005944	Pa×s	376.35	Joback Method
dvisc	0.0008425	Pa×s	341.02	Joback Method
dvisc	0.0012945	Pa×s	305.69	Joback Method
dvisc	0.0022252	Pa×s	270.37	Joback Method

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=C43145546&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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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