Benzaldehyde, 4-ethyl-

Other names:	p-Ethylbenzaldehyde
	4-Ethylbenzaldehyde
	Ebal
	Ethyl-benzaldehyde
Inchi:	InChI=1S/C9H10O/c1-2-8-3-5-9(7-10)6-4-8/h3-7H,2H2,1H3
InchiKey:	QNGNSVIICDLXHT-UHFFFAOYSA-N
Formula:	C9H10O
SMILES:	CCc1ccc(C=O)cc1
Mol. weight [g/mol]:	134.18
CAS:	4748-78-1

Physical Properties

Property code	Value	Unit	Source
gf	28.16	kJ/mol	Joback Method
hf	-89.61	kJ/mol	Joback Method
hfus	15.01	kJ/mol	Joback Method
hvap	45.29	kJ/mol	Joback Method
log10ws	-2.52		Crippen Method
logp	2.062		Crippen Method
mcvol	115.480	ml/mol	McGowan Method
pc	3493.01	kPa	Joback Method
rinpol	1164.00		NIST Webbook
rinpol	1163.00		NIST Webbook
rinpol	1164.00		NIST Webbook
rinpol	1206.00		NIST Webbook
rinpol	1181.00		NIST Webbook
rinpol	1180.00		NIST Webbook
rinpol	1163.00		NIST Webbook
ripol	1730.00		NIST Webbook
ripol	1719.00		NIST Webbook
ripol	1730.00		NIST Webbook
ripol	1721.00		NIST Webbook
ripol	1719.00		NIST Webbook
tb	494.20	K	NIST Webbook
tc	699.60	K	Joback Method
tf	272.13	K	Joback Method
vc	0.449	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	235.04	J/mol×K	485.64	Joback Method
cpg	247.20	J/mol×K	521.30	Joback Method
cpg	258.65	J/mol×K	556.96	Joback Method
cpg	269.43	J/mol×K	592.62	Joback Method
cpg	279.56	J/mol×K	628.28	Joback Method
cpg	289.07	J/mol×K	663.94	Joback Method
cpg	297.98	J/mol×K	699.60	Joback Method
dvisc	0.0024281	Pa×s	272.13	Joback Method
dvisc	0.0013782	Pa×s	307.71	Joback Method
dvisc	0.0008797	Pa×s	343.30	Joback Method
dvisc	0.0006110	Pa×s	378.88	Joback Method
dvisc	0.0004517	Pa×s	414.47	Joback Method
dvisc	0.0003503	Pa×s	450.06	Joback Method
dvisc	0.0002820	Pa×s	485.64	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	382.70	K	1.30	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=C4748781&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
rinpol:	Non-polar retention indices
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