Benzaldehyde, 4-(diethylamino)-

Other names:	Benzaldehyde, p-(diethylamino)-
	p-(Diethylamino)benzaldehyde
	p-Formyl-N,N-diethylaniline
	4-(Diethylamino)benzaldehyde
	4-(N,N-Diethylamino)benzaldehyde
Inchi:	InChI=1S/C11H15NO/c1-3-12(4-2)11-7-5-10(9-13)6-8-11/h5-9H,3-4H2,1-2H3
InchiKey:	MNFZZNNFORDXSV-UHFFFAOYSA-N
Formula:	C11H15NO
SMILES:	CCN(CC)c1ccc(C=O)cc1
Mol. weight [g/mol]:	177.24
CAS:	120-21-8

Physical Properties

Property code	Value	Unit	Source
gf	155.78	kJ/mol	Joback Method
hf	-63.36	kJ/mol	Joback Method
hfus	23.21	kJ/mol	Joback Method
hvap	51.78	kJ/mol	Joback Method
log10ws	-2.46		Crippen Method
logp	2.345		Crippen Method
mcvol	153.640	ml/mol	McGowan Method
pc	2811.36	kPa	Joback Method
tb	543.84	K	Joback Method
tc	748.45	K	Joback Method
tf	314.00	K	NIST Webbook
vc	0.579	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	357.09	J/mol×K	543.84	Joback Method
cpg	371.85	J/mol×K	577.94	Joback Method
cpg	385.74	J/mol×K	612.04	Joback Method
cpg	398.80	J/mol×K	646.14	Joback Method

cpg	411.06	J/mol×K	680.24	Joback Method
cpg	422.56	J/mol×K	714.34	Joback Method
cpg	433.34	J/mol×K	748.45	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	447.20	K	0.90	NIST Webbook
tbrp	447.00	K	0.90	NIST Webbook

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=C120218&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg: Ideal gas heat capacity
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