4-(Decyloxy)benzaldehyde

Other names:	p-Decyloxybenzaldehyde
	4-n-Decyloxybenzaldehyde
	p-n-Decyloxybenzaldehyde
	Benzaldehyde, 4-(decyloxy)-
Inchi:	InChI=1S/C17H26O2/c1-2-3-4-5-6-7-8-9-14-19-17-12-10-16(15-18)11-13-17/h10-13,15H
InchiKey:	WOSYBKJRUQJISL-UHFFFAOYSA-N
Formula:	C17H26O2
SMILES:	CCCCCCCCCCOc1ccc(C=O)cc1
Mol. weight [g/mol]:	262.39
CAS:	24083-16-7

Physical Properties

Property code	Value	Unit	Source
gf	-9.48	kJ/mol	Joback Method
hf	-386.95	kJ/mol	Joback Method
hfus	36.91	kJ/mol	Joback Method
hvap	65.50	kJ/mol	Joback Method
log10ws	-5.60		Crippen Method
logp	5.019		Crippen Method
mcvol	234.070	ml/mol	McGowan Method
pc	1629.85	kPa	Joback Method
tb	691.10	K	Joback Method
tc	881.94	K	Joback Method
tf	384.52	K	Joback Method
vc	0.914	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	654.18	J/mol×K	691.10	Joback Method
cpg	730.71	J/mol×K	850.14	Joback Method
cpg	717.14	J/mol×K	818.33	Joback Method
cpg	702.73	J/mol×K	786.52	Joback Method
cpg	687.45	J/mol×K	754.71	Joback Method

cpg	671.28	J/mol×K	722.91	Joback Method
cpg	743.46	J/mol×K	881.94	Joback Method
dvisc	0.0001197	Pa×s	691.10	Joback Method
dvisc	0.0001545	Pa×s	640.00	Joback Method
dvisc	0.0002085	Pa×s	588.91	Joback Method
dvisc	0.0002977	Pa×s	537.81	Joback Method
dvisc	0.0004581	Pa×s	486.71	Joback Method
dvisc	0.0007799	Pa×s	435.62	Joback Method
dvisc	0.0015295	Pa×s	384.52	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	447.50 ± 0.50	K	0.05	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=C24083167&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

tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume