p-Dodecyloxybenzaldehyde

Other names:	p-n-Dodecoxy benzaldehyde
	4-n-Dodecyloxybenzaldehyde
	Benzaldehyde, 4-(dodecyloxy)-
	4-(Dodecyloxy)benzaldehyde
	p-(Lauryloxy)benzaldehyde
Inchi:	InChI=1S/C19H30O2/c1-2-3-4-5-6-7-8-9-10-11-16-21-19-14-12-18(17-20)13-15-19/h12-1
InchiKey:	ZBEGLEYBWGNZJA-UHFFFAOYSA-N
Formula:	C19H30O2
SMILES:	CCCCCCCCCCCCOc1ccc(C=O)cc1
Mol. weight [g/mol]:	290.44
CAS:	24083-19-0

Physical Properties

Property code	Value	Unit	Source
gf	7.36	kJ/mol	Joback Method
hf	-428.23	kJ/mol	Joback Method
hfus	42.09	kJ/mol	Joback Method
hvap	69.96	kJ/mol	Joback Method
log10ws	-6.44		Crippen Method
logp	5.799		Crippen Method
mcvol	262.250	ml/mol	McGowan Method
pc	1403.79	kPa	Joback Method
tb	736.86	K	Joback Method
tc	925.76	K	Joback Method
tf	407.06	K	Joback Method
vc	1.026	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	767.12	J/mol×K	736.86	Joback Method
cpg	846.29	J/mol×K	894.27	Joback Method
cpg	832.28	J/mol×K	862.79	Joback Method
cpg	817.39	J/mol×K	831.31	Joback Method

cpg	801.59	J/mol×K	799.83	Joback Method
cpg	784.84	J/mol×K	768.34	Joback Method
cpg	859.45	J/mol×K	925.76	Joback Method
dvisc	0.0000943	Pa×s	736.86	Joback Method
dvisc	0.0001225	Pa×s	681.89	Joback Method
dvisc	0.0001667	Pa×s	626.93	Joback Method
dvisc	0.0002407	Pa×s	571.96	Joback Method
dvisc	0.0003758	Pa×s	516.99	Joback Method
dvisc	0.0006523	Pa×s	462.03	Joback Method
dvisc	0.0013141	Pa×s	407.06	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	438.50 ± 0.50	K	0.00	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C24083190&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