Benzene, 1,3-dimethoxy-4-decyl

Inchi: InChI=1S/C18H30O2/c1-4-5-6-7-8-9-10-11-12-16-13-14-17(19-2)15-18(16)20-3/h13-15H
InchiKey: ASWJLVTWCMPSNO-UHFFFAOYSA-N
Formula: C18H30O2
SMILES: CCCCCCCCCCc1ccc(OC)cc1OC
Mol. weight [g/mol]: 278.43

Physical Properties

Property code	Value	Unit	Source
gf	-16.17	kJ/mol	Joback Method
hf	-465.70	kJ/mol	Joback Method
hfus	38.01	kJ/mol	Joback Method
hvap	64.08	kJ/mol	Joback Method
log10ws	-5.86		Crippen Method
logp	5.387		Crippen Method
mcvol	252.460	ml/mol	McGowan Method
pc	1393.33	kPa	Joback Method
rinpol	2083.00		NIST Webbook
tb	692.72	K	Joback Method
tc	878.81	K	Joback Method
tf	388.54	K	Joback Method
vc	0.972	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	715.20	J/mol×K	692.72	Joback Method
cpg	799.20	J/mol×K	847.80	Joback Method
cpg	784.20	J/mol×K	816.78	Joback Method
cpg	768.31	J/mol×K	785.77	Joback Method
cpg	751.52	J/mol×K	754.75	Joback Method
cpg	733.83	J/mol×K	723.74	Joback Method
cpg	813.32	J/mol×K	878.81	Joback Method
dvisc	0.0000737	Pa×s	692.72	Joback Method
dvisc	0.0000945	Pa×s	642.02	Joback Method

dvisc	0.0001265	Pa×s	591.33	Joback Method
dvisc	0.0001787	Pa×s	540.63	Joback Method
dvisc	0.0002713	Pa×s	489.93	Joback Method
dvisc	0.0004534	Pa×s	439.24	Joback Method
dvisc	0.0008665	Pa×s	388.54	Joback Method

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=R142997&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume