Pentane, 2-methoxy-

Other names:	DL-2-Pentanol, methyl ether
	Ether, methyl 1-methylbutyl
	Methyl 1-methylbutyl ether
Inchi:	InChI=1S/C6H14O/c1-4-5-6(2)7-3/h6H,4-5H2,1-3H3
InchiKey:	XSAJCGUYMQTAHL-UHFFFAOYSA-N
Formula:	C6H14O
SMILES:	CCCC(C)OC
Mol. weight [g/mol]:	102.17
CAS:	6795-88-6

Physical Properties

Property code	Value	Unit	Source
gf	-107.80	kJ/mol	Joback Method
hf	-304.67	kJ/mol	Joback Method
hfus	8.96	kJ/mol	Joback Method
hvap	30.97	kJ/mol	Joback Method
log10ws	-1.53		Crippen Method
logp	1.821		Crippen Method
mcvol	101.270	ml/mol	McGowan Method
pc	3076.16	kPa	Joback Method
rinpol	691.10		NIST Webbook
rinpol	691.10		NIST Webbook
tb	365.00 ± 3.00	K	NIST Webbook
tc	527.06	K	Joback Method
tf	164.61	K	Joback Method
vc	0.384	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	181.69	J/mol×K	358.66	Joback Method
cpg	231.12	J/mol×K	498.99	Joback Method
cpg	221.82	J/mol×K	470.92	Joback Method
cpg	212.24	J/mol×K	442.86	Joback Method

cpg	202.35	J/mol×K	414.79	Joback Method
cpg	192.17	J/mol×K	386.73	Joback Method
cpg	240.11	J/mol×K	527.06	Joback Method
dvisc	0.0002155	Pa×s	358.66	Joback Method
dvisc	0.0002868	Pa×s	326.32	Joback Method
dvisc	0.0004067	Pa×s	293.98	Joback Method
dvisc	0.0006285	Pa×s	261.63	Joback Method
dvisc	0.0010982	Pa×s	229.29	Joback Method
dvisc	0.0023051	Pa×s	196.95	Joback Method
dvisc	0.0064749	Pa×s	164.61	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.52658e+01
Coeff. B	-3.43504e+03
Coeff. C	-4.23840e+01
Temperature range (K), min.	271.72
Temperature range (K), max.	387.46

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C6795886&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume