trans-2-Penten-1-ol

Inchi: InChI=1S/C5H10O/c1-2-3-4-5-6/h3-4,6H,2,5H2,1H3/b4-3+
InchiKey: BTSIZIIPFNVMHF-ONEGZZNKSA-N
Formula: C5H10O
SMILES: CCC=CCO
Mol. weight [g/mol]: 86.13
CAS: 1576-96-1

Physical Properties

Property code	Value	Unit	Source
gf	-65.38	kJ/mol	Joback Method
hf	-181.54	kJ/mol	Joback Method
hfus	13.00	kJ/mol	Joback Method
hvap	43.36	kJ/mol	Joback Method
log10ws	-1.03		Crippen Method
logp	0.945		Crippen Method
mcvol	82.880	ml/mol	McGowan Method
pc	4140.93	kPa	Joback Method
ripol	1335.00		NIST Webbook
ripol	1314.00		NIST Webbook
ripol	1325.00		NIST Webbook
tb	410.14	K	Joback Method
tc	579.75	K	Joback Method
tf	201.85	K	Joback Method
vc	0.315	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	154.30	J/mol×K	410.14	Joback Method
cpg	162.28	J/mol×K	438.41	Joback Method
cpg	169.90	J/mol×K	466.68	Joback Method
cpg	177.18	J/mol×K	494.94	Joback Method
cpg	184.13	J/mol×K	523.21	Joback Method
cpg	190.77	J/mol×K	551.48	Joback Method

cpg	197.11	J/mol×K	579.75	Joback Method
dvisc	0.1185690	Pa×s	201.85	Joback Method
dvisc	0.0195828	Pa×s	236.56	Joback Method
dvisc	0.0051279	Pa×s	271.28	Joback Method
dvisc	0.0018199	Pa×s	306.00	Joback Method
dvisc	0.0007977	Pa×s	340.71	Joback Method
dvisc	0.0004073	Pa×s	375.42	Joback Method
dvisc	0.0002330	Pa×s	410.14	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.80288e+01
Coeff. B	-4.58015e+03
Coeff. C	-5.54500e+01
Temperature range (K), min.	313.61
Temperature range (K), max.	415.60

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R625031&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

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
pvap:	Vapor pressure
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume