Benzenepentanol

Other names:	1-pentanol, 5-phenyl- 5-Phenylpentanol 5-phenyl-1-pentanol 5-phenylpentan-1-ol Pentanol, 5-phenyl- Phenylamyl alcohol Phenylpentanol
Inchi:	InChI=1S/C11H16O/c12-10-6-2-5-9-11-7-3-1-4-8-11/h1,3-4,7-8,12H,2,5-6,9-10H2
InchiKey:	DPZMVZIQRMVBBW-UHFFFAOYSA-N
Formula:	C11H16O
SMILES:	OCCCCCc1ccccc1
Mol. weight [g/mol]:	164.24
CAS:	10521-91-2

Physical Properties

Property code	Value	Unit	Source
gf	17.33	kJ/mol	Joback Method
hf	-186.07	kJ/mol	Joback Method
hfus	22.38	kJ/mol	Joback Method
hvap	59.03	kJ/mol	Joback Method
log10ws	-2.79		Crippen Method
logp	2.392		Crippen Method
mcvol	147.960	ml/mol	McGowan Method
pc	2918.68	kPa	Joback Method
tb	569.94	K	Joback Method
tc	759.99	K	Joback Method
tf	300.97	K	Joback Method
vc	0.562	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	358.48	J/mol×K	569.94	Joback Method
cpg	371.72	J/mol×K	601.61	Joback Method

cpg	384.25	J/mol×K	633.29	Joback Method
cpg	396.09	J/mol×K	664.96	Joback Method
cpg	407.28	J/mol×K	696.64	Joback Method
cpg	417.84	J/mol×K	728.31	Joback Method
cpg	427.81	J/mol×K	759.99	Joback Method
dvisc	0.0116411	Pa×s	300.97	Joback Method
dvisc	0.0030637	Pa×s	345.80	Joback Method
dvisc	0.0010954	Pa×s	390.63	Joback Method
dvisc	0.0004840	Pa×s	435.45	Joback Method
dvisc	0.0002491	Pa×s	480.28	Joback Method
dvisc	0.0001436	Pa×s	525.11	Joback Method
dvisc	0.0000903	Pa×s	569.94	Joback Method
hvapt	58.20	kJ/mol	401.50	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	428.20	K	2.70	NIST Webbook

Sources

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=C10521912&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Partitioning of Phenylalkanols between Micelles and Water Studied by Limiting Interdiffusion Coefficients in Water and Tetradecyltrimethylammonium Bromide Solutions:	https://www.doi.org/10.1021/je900967j

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
hvapt:	Enthalpy of vaporization at a given temperature
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