«alpha»-Ethyl-«alpha»-methylbenzyl alcohol

Other names:	2-Phenyl-2-butanol
	Benzenemethanol, «alpha»-ethyl-«alpha»-methyl-
	Benzyl alcohol, «alpha»-ethyl-«alpha»-methyl-
	2-Butanol, 2-phenyl-
	2-Phenyl-butanol-2
	2-Phenylbutan-2-ol
	NSC 225251
Inchi:	InChI=1S/C10H14O/c1-3-10(2,11)9-7-5-4-6-8-9/h4-8,11H,3H2,1-2H3
InchiKey:	XGLHYBVJPSZXIF-UHFFFAOYSA-N
Formula:	C10H14O
SMILES:	CCC(C)(O)c1ccccc1
Mol. weight [g/mol]:	150.22
CAS:	1565-75-9

Physical Properties

Property code	Value	Unit	Source
gf	11.75	kJ/mol	Joback Method
hf	-174.18	kJ/mol	Joback Method
hfus	12.37	kJ/mol	Joback Method
hvap	55.51	kJ/mol	Joback Method
log10ws	-2.54		Crippen Method
logp	2.304		Crippen Method
mcvol	133.870	ml/mol	McGowan Method
pc	3318.18	kPa	Joback Method
tb	543.83	K	Joback Method
tc	747.81	K	Joback Method
tf	292.12	K	Joback Method
vc	0.495	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	315.14	J/mol×K	543.83	Joback Method
cpg	328.48	J/mol×K	577.83	Joback Method

cpg	340.94	J/mol×K	611.82	Joback Method
cpg	352.57	J/mol×K	645.82	Joback Method
cpg	363.42	J/mol×K	679.82	Joback Method
cpg	373.54	J/mol×K	713.82	Joback Method
cpg	382.98	J/mol×K	747.81	Joback Method
dvisc	0.0171729	Pa×s	292.12	Joback Method
dvisc	0.0042551	Pa×s	334.07	Joback Method
dvisc	0.0014394	Pa×s	376.02	Joback Method
dvisc	0.0006053	Pa×s	417.97	Joback Method
dvisc	0.0002981	Pa×s	459.93	Joback Method
dvisc	0.0001653	Pa×s	501.88	Joback Method
dvisc	0.0001003	Pa×s	543.83	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	380.70	K	2.70	NIST Webbook

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1565759&Units=SI

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