Benzene, 1-octenyl-

Other names: 1-Octene, 1-phenyl-
Inchi: InChI=1S/C14H20/c1-2-3-4-5-6-8-11-14-12-9-7-10-13-14/h7-13H,2-6H2,1H3/b11-8+
InchiKey: RCALDWJXTVCBAZ-DHZHZOJOSA-N
Formula: C14H20
SMILES: CCCCCCC=Cc1ccccc1
Mol. weight [g/mol]: 188.31
CAS: 29518-72-7

Physical Properties

Property code	Value	Unit	Source
gf	259.63	kJ/mol	Joback Method
hf	21.46	kJ/mol	Joback Method
hfus	26.26	kJ/mol	Joback Method
hvap	48.99	kJ/mol	Joback Method
log10ws	-4.81		Crippen Method
logp	4.670		Crippen Method
mcvol	180.060	ml/mol	McGowan Method
pc	2106.13	kPa	Joback Method
tb	550.56	K	Joback Method
tc	753.08	K	Joback Method
tf	268.88	K	Joback Method
vc	0.692	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	423.60	J/mol×K	550.56	Joback Method
cpg	441.41	J/mol×K	584.31	Joback Method
cpg	458.19	J/mol×K	618.07	Joback Method
cpg	473.99	J/mol×K	651.82	Joback Method
cpg	488.87	J/mol×K	685.58	Joback Method
cpg	502.87	J/mol×K	719.33	Joback Method
cpg	516.05	J/mol×K	753.08	Joback Method
dvisc	0.0034593	Pa×s	268.88	Joback Method

dvisc	0.0013984	Pa×s	315.83	Joback Method
dvisc	0.0007146	Pa×s	362.77	Joback Method
dvisc	0.0004259	Pa×s	409.72	Joback Method
dvisc	0.0002824	Pa×s	456.67	Joback Method
dvisc	0.0002021	Pa×s	503.61	Joback Method
dvisc	0.0001531	Pa×s	550.56	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C29518727&Units=SI
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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