Benzene, 3-pentenyl-, (E)-

Other names:	2-Pentene, 5-phenyl-, (E)-
	(E)- and (Z)-1-Phenyl-3-pentene
Inchi:	InChI=1S/C11H14/c1-2-3-5-8-11-9-6-4-7-10-11/h2-4,6-7,9-10H,5,8H2,1H3/b3-2+
InchiKey:	GLXIHKLBZUKOLW-NSCUHMNNSA-N
Formula:	C11H14
SMILES:	CC=CCCc1ccccc1
Mol. weight [g/mol]:	146.23
CAS:	16091-23-9

Physical Properties

Property code	Value	Unit	Source
gf	234.37	kJ/mol	Joback Method
hf	83.38	kJ/mol	Joback Method
hfus	18.49	kJ/mol	Joback Method
hvap	42.31	kJ/mol	Joback Method
log10ws	-3.38		Crippen Method
logp	3.195		Crippen Method
mcvol	137.790	ml/mol	McGowan Method
pc	2796.51	kPa	Joback Method
rinpol	1140.00		NIST Webbook
tb	481.92	K	Joback Method
tc	693.75	K	Joback Method
tf	235.07	K	Joback Method
vc	0.523	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	283.26	J/mol×K	481.92	Joback Method
cpg	298.98	J/mol×K	517.23	Joback Method
cpg	313.72	J/mol×K	552.53	Joback Method
cpg	327.54	J/mol×K	587.84	Joback Method
cpg	340.49	J/mol×K	623.14	Joback Method
cpg	352.62	J/mol×K	658.45	Joback Method

cpg	363.97	J/mol×K	693.75	Joback Method
dvisc	0.0035249	Pa×s	235.07	Joback Method
dvisc	0.0014929	Pa×s	276.21	Joback Method
dvisc	0.0007901	Pa×s	317.35	Joback Method
dvisc	0.0004839	Pa×s	358.50	Joback Method
dvisc	0.0003278	Pa×s	399.64	Joback Method
dvisc	0.0002388	Pa×s	440.78	Joback Method
dvisc	0.0001837	Pa×s	481.92	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C16091239&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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