

3-Phenylbut-1-ene

Other names:	1-Methyl-2-propenyl)-benzene 3-phenyl-1-butene
Inchi:	InChI=1S/C10H12/c1-3-9(2)10-7-5-4-6-8-10/h3-9H,1H2,2H3
InchiKey:	CHPXLAPHLQIKCA-UHFFFAOYSA-N
Formula:	C10H12
SMILES:	C=CC(C)c1ccccc1
Mol. weight [g/mol]:	132.20
CAS:	934-10-1

Physical Properties

Property code	Value	Unit	Source
gf	231.13	kJ/mol	Joback Method
hf	106.95	kJ/mol	Joback Method
hfus	10.89	kJ/mol	Joback Method
hvap	39.07	kJ/mol	Joback Method
log10ws	-2.93		Crippen Method
logp	2.976		Crippen Method
mcvol	123.700	ml/mol	McGowan Method
pc	3096.73	kPa	Joback Method
rinpol	1114.80		NIST Webbook
tb	451.12	K	Joback Method
tc	665.32	K	Joback Method
tf	212.12	K	Joback Method
vc	0.463	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	239.82	J/mol×K	451.12	Joback Method
cpg	254.75	J/mol×K	486.82	Joback Method
cpg	268.77	J/mol×K	522.52	Joback Method
cpg	281.92	J/mol×K	558.22	Joback Method
cpg	294.24	J/mol×K	593.92	Joback Method
cpg	305.77	J/mol×K	629.62	Joback Method

cpg	316.54	J/mol×K	665.32	Joback Method
dvisc	0.0050043	Pa×s	212.12	Joback Method
dvisc	0.0019593	Pa×s	251.95	Joback Method
dvisc	0.0009909	Pa×s	291.79	Joback Method
dvisc	0.0005904	Pa×s	331.62	Joback Method
dvisc	0.0003930	Pa×s	371.45	Joback Method
dvisc	0.0002831	Pa×s	411.29	Joback Method
dvisc	0.0002161	Pa×s	451.12	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C934101&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

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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