1,4-Pentadiene, 3-ethenyl-

Other names: 1,4-Pentadiene, 3-vinyl-
(CH2=CH)3CH
Inchi: InChI=1S/C7H10/c1-4-7(5-2)6-3/h4-7H,1-3H2
InchiKey: HEKRPWJODWSOQV-UHFFFAOYSA-N
Formula: C7H10
SMILES: C=CC(C=C)C=C
Mol. weight [g/mol]: 94.15
CAS: 26456-63-3

Physical Properties

Property code	Value	Unit	Source
gf	269.14	kJ/mol	Joback Method
hf	183.20	kJ/mol	Joback Method
hfus	6.52	kJ/mol	Joback Method
hvap	28.78	kJ/mol	Joback Method
ie	9.50	eV	NIST Webbook
ie	9.10	eV	NIST Webbook
log10ws	-2.07		Crippen Method
logp	2.161		Crippen Method
mcvol	96.590	ml/mol	McGowan Method
pc	3243.03	kPa	Joback Method
tb	349.16	K	Joback Method
tc	527.46	K	Joback Method
tf	148.37	K	Joback Method
vc	0.364	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	153.48	J/mol×K	349.16	Joback Method
cpg	163.93	J/mol×K	378.88	Joback Method
cpg	173.87	J/mol×K	408.59	Joback Method
cpg	183.33	J/mol×K	438.31	Joback Method
cpg	192.31	J/mol×K	468.03	Joback Method

cpg	200.84	J/mol×K	497.74	Joback Method
cpg	208.94	J/mol×K	527.46	Joback Method
dvisc	0.0047915	Pa×s	148.37	Joback Method
dvisc	0.0017502	Pa×s	181.84	Joback Method
dvisc	0.0008744	Pa×s	215.30	Joback Method
dvisc	0.0005265	Pa×s	248.76	Joback Method
dvisc	0.0003575	Pa×s	282.23	Joback Method
dvisc	0.0002636	Pa×s	315.69	Joback Method
dvisc	0.0002060	Pa×s	349.16	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C26456633&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
ie:	Ionization energy
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