2-Octene, 4-ethyl-

Other names: 4-Ethyl-2-octene
Inchi: InChI=1S/C10H20/c1-4-7-9-10(6-3)8-5-2/h5,8,10H,4,6-7,9H2,1-3H3/b8-5+
InchiKey: KWJKRSHQUPUUBI-VMPITWQZSA-N
Formula: C10H20
SMILES: CC=CC(CC)CCCC
Mol. weight [g/mol]: 140.27
CAS: 53966-52-2

Physical Properties

Property code	Value	Unit	Source
gf	111.10	kJ/mol	Joback Method
hf	-137.79	kJ/mol	Joback Method
hfus	18.34	kJ/mol	Joback Method
hvap	37.42	kJ/mol	Joback Method
log10ws	-3.62		Crippen Method
logp	3.779		Crippen Method
mcvol	147.460	ml/mol	McGowan Method
pc	2229.20	kPa	Joback Method
tb	437.40 ± 2.00	K	NIST Webbook
tb	437.40 ± 2.00	K	NIST Webbook
tc	605.89	K	Joback Method
tf	182.38	K	Joback Method
vc	0.570	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	300.30	J/mol×K	431.92	Joback Method
cpg	370.77	J/mol×K	576.90	Joback Method
cpg	357.91	J/mol×K	547.90	Joback Method
cpg	344.46	J/mol×K	518.91	Joback Method
cpg	330.38	J/mol×K	489.91	Joback Method
cpg	315.67	J/mol×K	460.92	Joback Method
cpg	383.07	J/mol×K	605.89	Joback Method

dvisc	0.0001884	Pa×s	431.92	Joback Method
dvisc	0.0002574	Pa×s	390.33	Joback Method
dvisc	0.0003790	Pa×s	348.74	Joback Method
dvisc	0.0006197	Pa×s	307.15	Joback Method
dvisc	0.0011817	Pa×s	265.56	Joback Method
dvisc	0.0028643	Pa×s	223.97	Joback Method
dvisc	0.0103960	Pa×s	182.38	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C53966522&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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