3-Octene, 4-ethyl-

Inchi: InChI=1S/C10H20/c1-4-7-9-10(6-3)8-5-2/h8H,4-7,9H2,1-3H3/b10-8+
InchiKey: NOBLDEYGTBPLMF-CSKARUKUSA-N
Formula: C10H20
SMILES: CCC=C(CC)CCCC
Mol. weight [g/mol]: 140.27
CAS: 53966-51-1

Physical Properties

Property code	Value	Unit	Source
gf	104.99	kJ/mol	Joback Method
hf	-142.30	kJ/mol	Joback Method
hfus	20.55	kJ/mol	Joback Method
hvap	37.89	kJ/mol	Joback Method
log10ws	-3.86		Crippen Method
logp	3.923		Crippen Method
mcvol	147.460	ml/mol	McGowan Method
pc	2222.89	kPa	Joback Method
tb	434.15 ± 2.50	K	NIST Webbook
tc	605.63	K	Joback Method
tf	183.42	K	Joback Method
vc	0.577	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	300.23	J/mol×K	432.24	Joback Method
cpg	315.43	J/mol×K	461.14	Joback Method
cpg	329.98	J/mol×K	490.04	Joback Method
cpg	343.91	J/mol×K	518.94	Joback Method
cpg	357.23	J/mol×K	547.83	Joback Method
cpg	369.97	J/mol×K	576.73	Joback Method
cpg	382.16	J/mol×K	605.63	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C53966511&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
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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