1-Decene, 4-ethyl

Inchi: InChI=1S/C12H24/c1-4-7-8-9-11-12(6-3)10-5-2/h5,12H,2,4,6-11H2,1,3H3
InchiKey: YRVRPNGIWJYHPQ-UHFFFAOYSA-N
Formula: C12H24
SMILES: C=CCC(CC)CCCCCC
Mol. weight [g/mol]: 168.32

Physical Properties

Property code	Value	Unit	Source
gf	135.56	kJ/mol	Joback Method
hf	-170.86	kJ/mol	Joback Method
hfus	22.03	kJ/mol	Joback Method
hvap	41.25	kJ/mol	Joback Method
log10ws	-4.46		Crippen Method
logp	4.559		Crippen Method
mcvol	175.640	ml/mol	McGowan Method
pc	1857.91	kPa	Joback Method
rinpol	1144.00		NIST Webbook
rinpol	1144.00		NIST Webbook
tb	470.20	K	Joback Method
tc	637.46	K	Joback Method
tf	208.24	K	Joback Method
vc	0.682	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	389.11	J/mol×K	470.20	Joback Method
cpg	466.18	J/mol×K	609.58	Joback Method
cpg	452.04	J/mol×K	581.70	Joback Method
cpg	437.28	J/mol×K	553.83	Joback Method
cpg	421.88	J/mol×K	525.95	Joback Method
cpg	405.84	J/mol×K	498.08	Joback Method
cpg	479.73	J/mol×K	637.46	Joback Method
dvisc	0.0002043	Pa×s	470.20	Joback Method

dvisc	0.0002779	Pa×s	426.54	Joback Method
dvisc	0.0004054	Pa×s	382.88	Joback Method
dvisc	0.0006519	Pa×s	339.22	Joback Method
dvisc	0.0012062	Pa×s	295.56	Joback Method
dvisc	0.0027624	Pa×s	251.90	Joback Method
dvisc	0.0089547	Pa×s	208.24	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R46794&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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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