Decane, 4-propyl

Inchi: InChI=1S/C13H28/c1-4-7-8-9-12-13(10-5-2)11-6-3/h13H,4-12H2,1-3H3
InchiKey: DEYIWSIHCYZIOF-UHFFFAOYSA-N
Formula: C13H28
SMILES: CCCCCCC(CCC)CCC
Mol. weight [g/mol]: 184.36

Physical Properties

Property code	Value	Unit	Source
gf	56.14	kJ/mol	Joback Method
hf	-316.93	kJ/mol	Joback Method
hfus	25.90	kJ/mol	Joback Method
hvap	44.14	kJ/mol	Joback Method
log10ws	-5.02		Crippen Method
logp	5.173		Crippen Method
mcvol	194.030	ml/mol	McGowan Method
pc	1655.15	kPa	Joback Method
rinpol	1222.00		NIST Webbook
rinpol	1220.00		NIST Webbook
tb	496.40	K	Joback Method
tc	659.72	K	Joback Method
tf	221.27	K	Joback Method
vc	0.757	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	455.59	J/mol×K	496.40	Joback Method
cpg	473.45	J/mol×K	523.62	Joback Method
cpg	490.62	J/mol×K	550.84	Joback Method
cpg	507.13	J/mol×K	578.06	Joback Method
cpg	522.98	J/mol×K	605.28	Joback Method
cpg	538.20	J/mol×K	632.50	Joback Method
cpg	552.81	J/mol×K	659.72	Joback Method
dvisc	0.0096568	Pa×s	221.27	Joback Method

dvisc	0.0028515	Pa×s	267.12	Joback Method
dvisc	0.0012038	Pa×s	312.98	Joback Method
dvisc	0.0006335	Pa×s	358.83	Joback Method
dvisc	0.0003856	Pa×s	404.69	Joback Method
dvisc	0.0002596	Pa×s	450.54	Joback Method
dvisc	0.0001881	Pa×s	496.40	Joback Method

Sources

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=R8907&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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