trans-2,trans-7-decadiene

Inchi: InChI=1S/C11H20/c1-3-5-7-9-11-10-8-6-4-2/h3,5,8,10H,4,6-7,9,11H2,1-2H3/b5-3+,10-8+
InchiKey: XMOZQBAIVNOPML-KWRXBJJZSA-N
Formula: C11H20
SMILES: CC=CCCCC=CCCC
Mol. weight [g/mol]: 152.28

Physical Properties

Property code	Value	Unit	Source
gf	202.18	kJ/mol	Joback Method
hf	-35.93	kJ/mol	Joback Method
hfus	24.65	kJ/mol	Joback Method
hvap	40.00	kJ/mol	Joback Method
log10ws	-4.13		Crippen Method
logp	4.089		Crippen Method
mcvol	157.250	ml/mol	McGowan Method
pc	2123.64	kPa	Joback Method
rinpol	984.60		NIST Webbook
tb	459.40	K	Joback Method
tc	636.45	K	Joback Method
tf	203.57	K	Joback Method
vc	0.612	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	328.89	J/mol×K	459.40	Joback Method
cpg	344.53	J/mol×K	488.91	Joback Method
cpg	359.41	J/mol×K	518.42	Joback Method
cpg	373.59	J/mol×K	547.92	Joback Method
cpg	387.08	J/mol×K	577.43	Joback Method
cpg	399.94	J/mol×K	606.94	Joback Method
cpg	412.17	J/mol×K	636.45	Joback Method
dvisc	0.0055290	Pa×s	203.57	Joback Method
dvisc	0.0018316	Pa×s	246.21	Joback Method

dvisc	0.0008408	Pa×s	288.85	Joback Method
dvisc	0.0004715	Pa×s	331.49	Joback Method
dvisc	0.0003017	Pa×s	374.12	Joback Method
dvisc	0.0002115	Pa×s	416.76	Joback Method
dvisc	0.0001584	Pa×s	459.40	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R250132&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
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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