

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=CCCC=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/molxK	459.40	Joback Method
cpg	399.94	J/molxK	606.94	Joback Method
cpg	387.08	J/molxK	577.43	Joback Method
cpg	373.59	J/molxK	547.92	Joback Method
cpg	359.41	J/molxK	518.42	Joback Method
cpg	344.53	J/molxK	488.91	Joback Method
cpg	412.17	J/molxK	636.45	Joback Method
dvisc	0.0001584	Paxs	459.40	Joback Method
dvisc	0.0002115	Paxs	416.76	Joback Method

dvisc	0.0003017	Paxs	374.12	Joback Method
dvisc	0.0004715	Paxs	331.49	Joback Method
dvisc	0.0008408	Paxs	288.85	Joback Method
dvisc	0.0018316	Paxs	246.21	Joback Method
dvisc	0.0055290	Paxs	203.57	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=R250132&Units=SI

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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