trans-3,cis-5-decadiene

Inchi: InChI=1S/C10H18/c1-3-5-7-9-10-8-6-4-2/h5,7,9-10H,3-4,6,8H2,1-2H3/b7-5+,10-9-
InchiKey: KENMWXODTSEHKF-MLMNYHKTSA-N
Formula: C10H18
SMILES: CCC=CC=CCCCC
Mol. weight [g/mol]: 138.25

Physical Properties

Property code	Value	Unit	Source
gf	193.76	kJ/mol	Joback Method
hf	-15.29	kJ/mol	Joback Method
hfus	22.06	kJ/mol	Joback Method
hvap	37.77	kJ/mol	Joback Method
log10ws	-3.72		Crippen Method
logp	3.699		Crippen Method
mcvol	143.160	ml/mol	McGowan Method
pc	2324.78	kPa	Joback Method
rinpol	1022.80		NIST Webbook
tb	436.52	K	Joback Method
tc	614.98	K	Joback Method
tf	192.30	K	Joback Method
vc	0.555	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	285.06	J/mol×K	436.52	Joback Method
cpg	299.83	J/mol×K	466.26	Joback Method
cpg	313.89	J/mol×K	496.01	Joback Method
cpg	327.27	J/mol×K	525.75	Joback Method
cpg	340.00	J/mol×K	555.49	Joback Method
cpg	352.10	J/mol×K	585.24	Joback Method
cpg	363.62	J/mol×K	614.98	Joback Method
dvisc	0.0054554	Pa×s	192.30	Joback Method
dvisc	0.0018265	Pa×s	233.00	Joback Method

dvisc	0.0008467	Pa×s	273.71	Joback Method
dvisc	0.0004790	Pa×s	314.41	Joback Method
dvisc	0.0003088	Pa×s	355.11	Joback Method
dvisc	0.0002178	Pa×s	395.82	Joback Method
dvisc	0.0001640	Pa×s	436.52	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R250167&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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