deca-3,7-diene

Other names: 3,7-Decadiene (EE or ZZ or EZ)
3,7-decadiene
Inchi: InChI=1S/C10H18/c1-3-5-7-9-10-8-6-4-2/h5-8H,3-4,9-10H2,1-2H3
InchiKey: LCSLWNXVIDKVGD-UHFFFAOYSA-N
Formula: C10H18
SMILES: CCC=CCCC=CCC
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	987.00		NIST Webbook
rinpol	993.00		NIST Webbook
rinpol	991.00		NIST Webbook
rinpol	988.00		NIST Webbook
rinpol	983.00		NIST Webbook
rinpol	985.00		NIST Webbook
rinpol	982.00		NIST Webbook
rinpol	987.00		NIST Webbook
rinpol	986.00		NIST Webbook
rinpol	986.00		NIST Webbook
rinpol	989.00		NIST Webbook
rinpol	983.00		NIST Webbook
ripol	1068.00		NIST Webbook
ripol	1069.00		NIST Webbook
ripol	1077.00		NIST Webbook
ripol	1079.00		NIST Webbook
ripol	1085.00		NIST Webbook
ripol	1083.00		NIST Webbook
ripol	1076.00		NIST Webbook

ripol	1078.00		NIST Webbook
ripol	1076.00		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

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=R285420&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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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