2,4-Decadien-1-ol

Other names: 2,4-Decadienol
Inchi: InChI=1S/C10H18O/c1-2-3-4-5-6-7-8-9-10-11/h6-9,11H,2-5,10H2,1H3/b7-6+,9-8+
InchiKey: NUBWFSDCZULDCI-BLHCBFLLSA-N
Formula: C10H18O
SMILES: CCCCCC=CC=CCO
Mol. weight [g/mol]: 154.25
CAS: 14507-02-9

Physical Properties

Property code	Value	Unit	Source
gf	56.94	kJ/mol	Joback Method
hf	-167.52	kJ/mol	Joback Method
hfus	26.15	kJ/mol	Joback Method
hvap	54.45	kJ/mol	Joback Method
log10ws	-2.98		Crippen Method
logp	2.671		Crippen Method
mcvol	149.030	ml/mol	McGowan Method
pc	2545.61	kPa	Joback Method
rinpol	1295.00		NIST Webbook
rinpol	1233.00		NIST Webbook
rinpol	1295.00		NIST Webbook
tb	528.70	K	Joback Method
tc	700.08	K	Joback Method
tf	253.12	K	Joback Method
vc	0.575	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	344.77	J/mol×K	528.70	Joback Method
cpg	401.38	J/mol×K	671.51	Joback Method
cpg	391.12	J/mol×K	642.95	Joback Method
cpg	380.36	J/mol×K	614.39	Joback Method
cpg	369.07	J/mol×K	585.83	Joback Method

cpg	357.22	J/mol×K	557.26	Joback Method
cpg	411.16	J/mol×K	700.08	Joback Method
dvisc	0.0000851	Pa×s	528.70	Joback Method
dvisc	0.0001440	Pa×s	482.77	Joback Method
dvisc	0.0002723	Pa×s	436.84	Joback Method
dvisc	0.0005979	Pa×s	390.91	Joback Method
dvisc	0.0016185	Pa×s	344.98	Joback Method
dvisc	0.0059497	Pa×s	299.05	Joback Method
dvisc	0.0350795	Pa×s	253.12	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.42607e+01
Coeff. B	-4.10698e+03
Coeff. C	-7.48620e+01
Temperature range (K), min.	368.78
Temperature range (K), max.	533.78

Sources

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C14507029&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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume