(Z, E)-2,4-decadien-1-al

Other names: (Z,E)-2,4-decadienal
Inchi: InChI=1S/C10H16O/c1-2-3-4-5-6-7-8-9-10-11/h6-10H,2-5H2,1H3/b7-6+,9-8-
InchiKey: JZQKTMZYLHNFPL-MUIOLIGRSA-N
Formula: C10H16O
SMILES: CCCCCC=CC=CC=O
Mol. weight [g/mol]: 152.23

Physical Properties

Property code	Value	Unit	Source
gf	94.24	kJ/mol	Joback Method
hf	-100.87	kJ/mol	Joback Method
hfus	24.35	kJ/mol	Joback Method
hvap	44.49	kJ/mol	Joback Method
log10ws	-3.00		Crippen Method
logp	2.878		Crippen Method
mcvol	144.730	ml/mol	McGowan Method
pc	2500.00	kPa	Joback Method
rinpol	1270.00		NIST Webbook
rinpol	1279.00		NIST Webbook
rinpol	1295.00		NIST Webbook
rinpol	1279.00		NIST Webbook
rinpol	1298.00		NIST Webbook
rinpol	1317.00		NIST Webbook
rinpol	1295.00		NIST Webbook
ripol	1774.00		NIST Webbook
ripol	1803.00		NIST Webbook
tb	485.18	K	Joback Method
tc	669.38	K	Joback Method
tf	234.30	K	Joback Method
vc	0.573	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	309.28	J/mol×K	485.18	Joback Method
cpg	369.81	J/mol×K	638.68	Joback Method
cpg	358.96	J/mol×K	607.98	Joback Method
cpg	347.52	J/mol×K	577.28	Joback Method
cpg	335.45	J/mol×K	546.58	Joback Method
cpg	322.72	J/mol×K	515.88	Joback Method
cpg	380.10	J/mol×K	669.38	Joback Method
dvisc	0.0002049	Pa×s	485.18	Joback Method
dvisc	0.0002689	Pa×s	443.37	Joback Method
dvisc	0.0003733	Pa×s	401.55	Joback Method
dvisc	0.0005593	Pa×s	359.74	Joback Method
dvisc	0.0009322	Pa×s	317.93	Joback Method
dvisc	0.0018135	Pa×s	276.11	Joback Method
dvisc	0.0044740	Pa×s	234.30	Joback Method

Sources

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=R210778&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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