Z-2-Undecenal

Other names: cis-2-Undecenal
Inchi: InChI=1S/C11H20O/c1-2-3-4-5-6-7-8-9-10-11-12/h9-11H,2-8H2,1H3/b10-9-
InchiKey: PANBRUWVURLWGY-KTKRTIGZSA-N
Formula: C11H20O
SMILES: CCCCCCCCC=CC=O
Mol. weight [g/mol]: 168.28

Physical Properties

Property code	Value	Unit	Source
gf	22.44	kJ/mol	Joback Method
hf	-238.73	kJ/mol	Joback Method
hfus	26.74	kJ/mol	Joback Method
hvap	46.76	kJ/mol	Joback Method
log10ws	-3.56		Crippen Method
logp	3.492		Crippen Method
mcvol	163.120	ml/mol	McGowan Method
pc	2167.36	kPa	Joback Method
rinpol	1335.00		NIST Webbook
rinpol	1365.00		NIST Webbook
rinpol	1335.00		NIST Webbook
tb	503.90	K	Joback Method
tc	678.56	K	Joback Method
tf	250.65	K	Joback Method
vc	0.648	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	371.55	J/mol×K	503.90	Joback Method
cpg	438.14	J/mol×K	649.45	Joback Method
cpg	426.04	J/mol×K	620.34	Joback Method
cpg	413.35	J/mol×K	591.23	Joback Method
cpg	400.06	J/mol×K	562.12	Joback Method
cpg	386.13	J/mol×K	533.01	Joback Method

cpg	449.68	J/mol×K	678.56	Joback Method
dvisc	0.0002297	Pa×s	503.90	Joback Method
dvisc	0.0003024	Pa×s	461.69	Joback Method
dvisc	0.0004207	Pa×s	419.48	Joback Method
dvisc	0.0006302	Pa×s	377.27	Joback Method
dvisc	0.0010451	Pa×s	335.07	Joback Method
dvisc	0.0020053	Pa×s	292.86	Joback Method
dvisc	0.0047920	Pa×s	250.65	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=R297275&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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