2,4-Decadienoicacid

Inchi: InChI=1S/C10H16O2/c1-2-3-4-5-6-7-8-9-10(11)12/h6-9H,2-5H2,1H3,(H,11,12)/b7-6+,9-8
InchiKey: YKHVVNDSWHSBPA-BLHCBFLLSA-N
Formula: C10H16O2
SMILES: CCCCCC=CC=CC(=O)O
Mol. weight [g/mol]: 168.23

Physical Properties

Property code	Value	Unit	Source
gf	-71.98	kJ/mol	Joback Method
hf	-280.10	kJ/mol	Joback Method
hfus	27.75	kJ/mol	Joback Method
hvap	61.20	kJ/mol	Joback Method
log10ws	-2.81		Crippen Method
logp	2.764		Crippen Method
mcvol	150.600	ml/mol	McGowan Method
pc	2715.50	kPa	Joback Method
ripol	2707.00		NIST Webbook
ripol	2707.00		NIST Webbook
tb	582.57	K	Joback Method
tc	762.21	K	Joback Method
tf	303.05	K	Joback Method
vc	0.581	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	363.36	J/mol×K	582.57	Joback Method
cpg	374.78	J/mol×K	612.51	Joback Method
cpg	385.63	J/mol×K	642.45	Joback Method
cpg	395.92	J/mol×K	672.39	Joback Method
cpg	405.70	J/mol×K	702.33	Joback Method
cpg	414.99	J/mol×K	732.27	Joback Method
cpg	423.82	J/mol×K	762.21	Joback Method
dvisc	0.0110500	Pa×s	303.05	Joback Method

dvisc	0.0027416	Pa×s	349.64	Joback Method
dvisc	0.0009440	Pa×s	396.22	Joback Method
dvisc	0.0004068	Pa×s	442.81	Joback Method
dvisc	0.0002058	Pa×s	489.40	Joback Method
dvisc	0.0001172	Pa×s	535.98	Joback Method
dvisc	0.0000730	Pa×s	582.57	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=R548211&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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume