E5,E7-dodecadienal

Inchi: InChI=1S/C12H20O/c1-2-3-4-5-6-7-8-9-10-11-12-13/h5-8,12H,2-4,9-11H2,1H3/b6-5+,8-7
InchiKey: LDQDYNHCLZNOFB-BSWSSELBSA-N
Formula: C12H20O
SMILES: CCCCC=CC=CCCCC=O
Mol. weight [g/mol]: 180.29

Physical Properties

Property code	Value	Unit	Source
gf	111.08	kJ/mol	Joback Method
hf	-142.15	kJ/mol	Joback Method
hfus	29.53	kJ/mol	Joback Method
hvap	48.94	kJ/mol	Joback Method
log10ws	-3.83		Crippen Method
logp	3.658		Crippen Method
mcvol	172.910	ml/mol	McGowan Method
pc	2081.22	kPa	Joback Method
rinpol	1475.00		NIST Webbook
rinpol	1475.00		NIST Webbook
ripol	1925.00		NIST Webbook
ripol	1925.00		NIST Webbook
tb	530.94	K	Joback Method
tc	711.41	K	Joback Method
tf	256.84	K	Joback Method
vc	0.684	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	401.00	J/mol×K	530.94	Joback Method
cpg	468.62	J/mol×K	681.34	Joback Method
cpg	456.44	J/mol×K	651.26	Joback Method
cpg	443.62	J/mol×K	621.18	Joback Method
cpg	430.14	J/mol×K	591.10	Joback Method
cpg	415.94	J/mol×K	561.02	Joback Method

cpg	480.20	J/mol×K	711.41	Joback Method
dvisc	0.0001813	Pa×s	530.94	Joback Method
dvisc	0.0002402	Pa×s	485.26	Joback Method
dvisc	0.0003373	Pa×s	439.57	Joback Method
dvisc	0.0005125	Pa×s	393.89	Joback Method
dvisc	0.0008690	Pa×s	348.21	Joback Method
dvisc	0.0017283	Pa×s	302.52	Joback Method
dvisc	0.0043899	Pa×s	256.84	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=R517143&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