(Z)-Methyl cinnamate

Inchi: InChI=1S/C10H10O2/c1-12-10(11)8-7-9-5-3-2-4-6-9/h2-8H,1H3/b8-7-
InchiKey: CCRCUPLGCSFEDV-FPLPWBNLSA-N
Formula: C10H10O2
SMILES: COC(=O)C=Cc1ccccc1
Mol. weight [g/mol]: 162.19
CAS: 19713-73-6

Physical Properties

Property code	Value	Unit	Source
gf	-7.97	kJ/mol	Joback Method
hf	-140.78	kJ/mol	Joback Method
hfus	18.69	kJ/mol	Joback Method
hvap	49.24	kJ/mol	Joback Method
log10ws	-1.99		Crippen Method
logp	1.873		Crippen Method
mcvol	131.140	ml/mol	McGowan Method
pc	3269.04	kPa	Joback Method
rinpol	1321.00		NIST Webbook
rinpol	1301.00		NIST Webbook
rinpol	1343.00		NIST Webbook
rinpol	1281.00		NIST Webbook
rinpol	1300.00		NIST Webbook
rinpol	1300.00		NIST Webbook
rinpol	1308.20		NIST Webbook
rinpol	1308.20		NIST Webbook
rinpol	1348.00		NIST Webbook
rinpol	1320.00		NIST Webbook
rinpol	1321.00		NIST Webbook
rinpol	1301.00		NIST Webbook
rinpol	1303.00		NIST Webbook
rinpol	1299.00		NIST Webbook
rinpol	1306.00		NIST Webbook
rinpol	1300.00		NIST Webbook
rinpol	1306.00		NIST Webbook
rinpol	1303.00		NIST Webbook
rinpol	1292.00		NIST Webbook
tb	535.33	K	Joback Method

tc	757.99	K	Joback Method
tf	295.96	K	Joback Method
vc	0.491	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	281.89	J/mol×K	535.33	Joback Method
cpg	294.93	J/mol×K	572.44	Joback Method
cpg	307.12	J/mol×K	609.55	Joback Method
cpg	318.52	J/mol×K	646.66	Joback Method
cpg	329.15	J/mol×K	683.77	Joback Method
cpg	339.04	J/mol×K	720.88	Joback Method
cpg	348.24	J/mol×K	757.99	Joback Method
dvisc	0.0021489	Pa×s	295.96	Joback Method
dvisc	0.0011171	Pa×s	335.86	Joback Method
dvisc	0.0006673	Pa×s	375.75	Joback Method
dvisc	0.0004400	Pa×s	415.65	Joback Method
dvisc	0.0003121	Pa×s	455.54	Joback Method
dvisc	0.0002340	Pa×s	495.44	Joback Method
dvisc	0.0001831	Pa×s	535.33	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C19713736&Units=SI
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

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