Fumaric acid, ethyl 1-phenylprop-1-yl ester

Inchi: InChI=1S/C15H18O4/c1-3-13(12-8-6-5-7-9-12)19-15(17)11-10-14(16)18-4-2/h5-11,13H,3
InchiKey: XDHCCSALIVGTBU-ZHACJKMWSA-N
Formula: C15H18O4
SMILES: CCOC(=O)C=CC(=O)OC(CC)c1ccccc1
Mol. weight [g/mol]: 262.30

Physical Properties

Property code	Value	Unit	Source
gf	-202.23	kJ/mol	Joback Method
hf	-494.06	kJ/mol	Joback Method
hfus	30.90	kJ/mol	Joback Method
hvap	69.14	kJ/mol	Joback Method
log10ws	-3.24		Crippen Method
logp	2.800		Crippen Method
mcvol	209.030	ml/mol	McGowan Method
pc	2113.89	kPa	Joback Method
rinpol	1853.00		NIST Webbook
tb	725.58	K	Joback Method
tc	938.71	K	Joback Method
tf	409.47	K	Joback Method
vc	0.789	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	571.20	J/mol×K	725.58	Joback Method
cpg	634.58	J/mol×K	903.18	Joback Method
cpg	623.78	J/mol×K	867.66	Joback Method
cpg	612.07	J/mol×K	832.14	Joback Method
cpg	599.42	J/mol×K	796.62	Joback Method
cpg	585.81	J/mol×K	761.10	Joback Method
cpg	644.51	J/mol×K	938.71	Joback Method
dvisc	0.0000844	Pa×s	725.58	Joback Method
dvisc	0.0001106	Pa×s	672.89	Joback Method

dvisc	0.0001517	Pa×s	620.21	Joback Method
dvisc	0.0002208	Pa×s	567.52	Joback Method
dvisc	0.0003470	Pa×s	514.84	Joback Method
dvisc	0.0006045	Pa×s	462.16	Joback Method
dvisc	0.0012147	Pa×s	409.47	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=U405908&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