Fumaric acid, di(2-ethylphenyl) ester

Inchi: InChI=1S/C20H20O4/c1-3-15-9-5-7-11-17(15)23-19(21)13-14-20(22)24-18-12-8-6-10-16
InchiKey: REHWMOHIUJQLAP-BUHFOSPRSA-N
Formula: C20H20O4
SMILES: CCc1ccccc1OC(=O)C=CC(=O)Oc1ccccc1CC
Mol. weight [g/mol]: 324.37

Physical Properties

Property code	Value	Unit	Source
gf	-64.54	kJ/mol	Joback Method
hf	-378.39	kJ/mol	Joback Method
hfus	40.64	kJ/mol	Joback Method
hvap	84.26	kJ/mol	Joback Method
log10ws	-5.21		Crippen Method
logp	3.879		Crippen Method
mcvol	255.720	ml/mol	McGowan Method
pc	1792.42	kPa	Joback Method
rinpol	2455.00		NIST Webbook
tb	877.06	K	Joback Method
tc	1107.75	K	Joback Method
tf	532.28	K	Joback Method
vc	0.968	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	752.87	J/mol×K	877.06	Joback Method
cpg	766.57	J/mol×K	915.51	Joback Method
cpg	779.05	J/mol×K	953.96	Joback Method
cpg	790.37	J/mol×K	992.41	Joback Method
cpg	800.57	J/mol×K	1030.85	Joback Method
cpg	809.71	J/mol×K	1069.30	Joback Method
cpg	817.84	J/mol×K	1107.75	Joback Method
dvisc	0.0004152	Pa×s	532.28	Joback Method
dvisc	0.0002455	Pa×s	589.74	Joback Method

dvisc	0.0001593	Pa×s	647.21	Joback Method
dvisc	0.0001110	Pa×s	704.67	Joback Method
dvisc	0.0000816	Pa×s	762.13	Joback Method
dvisc	0.0000627	Pa×s	819.60	Joback Method
dvisc	0.0000498	Pa×s	877.06	Joback Method

Sources

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

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=U348801&Units=SI

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