Bis(2-ethylhexyl) maleate

Other names:	2-Butenedioic acid (Z)-, bis(2-ethylhexyl) ester
	Maleic acid, bis(2-ethylhexyl) ester
	Bis-(2-ethylhexyl)ester kyseliny maleinove
	Di-(2-ethylhexyl)maleate
	DOM
	RC Comonomer DOM
	Bis(2-ethylhexyl) (2Z)-2-butenedioate
	2-Butenedioic acid (Z), di-2-ethylhexyl ester
	2-Butenedioic acid (2Z)-, 1,4-bis(2-ethylhexyl) ester
	2-Butenedioic acid (2Z)-, bis(2-ethylhexyl) ester
Inchi:	InChI=1S/C20H36O4/c1-5-9-11-17(7-3)15-23-19(21)13-14-20(22)24-16-18(8-4)12-10-6-2
InchiKey:	ROPXFXOUUANXRR-YPKPFQOOSA-N
Formula:	C20H36O4
SMILES:	CCCCC(CC)COC(=O)C=CC(=O)OCC(CC)CCCC
Mol. weight [g/mol]:	340.50
CAS:	142-16-5

Physical Properties

Property code	Value	Unit	Source
gf	-274.98	kJ/mol	Joback Method
hf	-839.07	kJ/mol	Joback Method
hfus	46.29	kJ/mol	Joback Method
hvap	77.61	kJ/mol	Joback Method
log10ws	-5.29		Crippen Method
logp	5.062		Crippen Method
mcvol	303.240	ml/mol	McGowan Method
pc	1127.59	kPa	Joback Method
tb	812.86	K	Joback Method
tc	1000.99	K	Joback Method
tf	424.40	K	Joback Method
vc	1.171	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	944.85	J/mol×K	812.86	Joback Method
cpg	962.71	J/mol×K	844.21	Joback Method
cpg	979.55	J/mol×K	875.57	Joback Method
cpg	995.38	J/mol×K	906.92	Joback Method
cpg	1010.22	J/mol×K	938.28	Joback Method
cpg	1024.11	J/mol×K	969.63	Joback Method
cpg	1037.07	J/mol×K	1000.99	Joback Method
dvisc	0.0011216	Pa×s	424.40	Joback Method
dvisc	0.0004425	Pa×s	489.14	Joback Method
dvisc	0.0002170	Pa×s	553.89	Joback Method
dvisc	0.0001235	Pa×s	618.63	Joback Method
dvisc	0.0000782	Pa×s	683.37	Joback Method
dvisc	0.0000536	Pa×s	748.12	Joback Method
dvisc	0.0000390	Pa×s	812.86	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=C142165&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
tb: Normal Boiling Point Temperature
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume