Fumaric acid, di(1-methoxydec-4-yl) ester

Inchi: InChI=1S/C26H48O6/c1-5-7-9-11-15-23(17-13-21-29-3)31-25(27)19-20-26(28)32-24(18-
InchiKey: MNMSJWVXTDFPFZ-FMQUCBEESA-N
Formula: C26H48O6
SMILES: CCCCCCC(CCCOC)OC(=O)C=CC(=O)OC(CCCCCC)CCCOC
Mol. weight [g/mol]: 456.66

Physical Properties

Property code	Value	Unit	Source
gf	-434.46	kJ/mol	Joback Method
hf	-1227.35	kJ/mol	Joback Method
hfus	64.20	kJ/mol	Joback Method
hvap	95.78	kJ/mol	Joback Method
log10ws	-6.68		Crippen Method
logp	6.160		Crippen Method
mcvol	399.520	ml/mol	McGowan Method
pc	776.77	kPa	Joback Method
rinpol	2889.00		NIST Webbook
tb	994.98	K	Joback Method
tc	1227.30	K	Joback Method
tf	536.48	K	Joback Method
vc	1.544	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1380.60	J/mol×K	994.98	Joback Method
cpg	1399.99	J/mol×K	1033.70	Joback Method
cpg	1417.38	J/mol×K	1072.42	Joback Method
cpg	1432.80	J/mol×K	1111.14	Joback Method
cpg	1446.31	J/mol×K	1149.86	Joback Method
cpg	1457.92	J/mol×K	1188.58	Joback Method
cpg	1467.69	J/mol×K	1227.30	Joback Method
dvisc	0.0002193	Pa×s	536.48	Joback Method
dvisc	0.0000908	Pa×s	612.90	Joback Method

dvisc	0.0000458	Pa×s	689.31	Joback Method
dvisc	0.0000264	Pa×s	765.73	Joback Method
dvisc	0.0000169	Pa×s	842.15	Joback Method
dvisc	0.0000116	Pa×s	918.56	Joback Method
dvisc	0.0000084	Pa×s	994.98	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=U405909&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