Fumaric acid, di(dec-4-enyl) ester

Inchi: InChI=1S/C24H40O4/c1-3-5-7-9-11-13-15-17-21-27-23(25)19-20-24(26)28-22-18-16-14-
InchiKey: WBZFZCFYLUHDFZ-KFADKCKJSA-N
Formula: C24H40O4
SMILES: CCCCCC=CCCCOC(=O)C=CC(=O)OCCCC=CCCCCC
Mol. weight [g/mol]: 392.57

Physical Properties

Property code	Value	Unit	Source
gf	-75.98	kJ/mol	Joback Method
hf	-676.63	kJ/mol	Joback Method
hfus	64.10	kJ/mol	Joback Method
hvap	87.20	kJ/mol	Joback Method
log10ws	-7.15		Crippen Method
logp	6.462		Crippen Method
mcvol	351.000	ml/mol	McGowan Method
pc	932.92	kPa	Joback Method
rinpol	2774.00		NIST Webbook
tb	913.58	K	Joback Method
tc	1118.49	K	Joback Method
tf	489.32	K	Joback Method
vc	1.367	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1136.04	J/mol×K	913.58	Joback Method
cpg	1154.53	J/mol×K	947.73	Joback Method
cpg	1171.96	J/mol×K	981.88	Joback Method
cpg	1188.41	J/mol×K	1016.03	Joback Method
cpg	1203.93	J/mol×K	1050.19	Joback Method
cpg	1218.61	J/mol×K	1084.34	Joback Method
cpg	1232.52	J/mol×K	1118.49	Joback Method
dvisc	0.0004244	Pa×s	489.32	Joback Method
dvisc	0.0001841	Pa×s	560.03	Joback Method

dvisc	0.0000964	Pa×s	630.74	Joback Method
dvisc	0.0000575	Pa×s	701.45	Joback Method
dvisc	0.0000377	Pa×s	772.16	Joback Method
dvisc	0.0000265	Pa×s	842.87	Joback Method
dvisc	0.0000197	Pa×s	913.58	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=U348953&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