Fumaric acid, pentadecyl pent-4-enyl ester

Inchi: InChI=1S/C24H42O4/c1-3-5-7-8-9-10-11-12-13-14-15-16-18-22-28-24(26)20-19-23(25)2
InchiKey: AEPHNMFYDIXXEI-FMQUCBEESA-N
Formula: C24H42O4
SMILES: C=CCCCOC(=O)C=CC(=O)OCCCCCCCCCCCCCCC
Mol. weight [g/mol]: 394.59

Physical Properties

Property code	Value	Unit	Source
gf	-148.58	kJ/mol	Joback Method
hf	-785.64	kJ/mol	Joback Method
hfus	62.41	kJ/mol	Joback Method
hvap	86.62	kJ/mol	Joback Method
log10ws	-7.30		Crippen Method
logp	6.686		Crippen Method
mcvol	355.300	ml/mol	McGowan Method
pc	898.56	kPa	Joback Method
rinpol	2777.00		NIST Webbook
tb	901.94	K	Joback Method
tc	1104.44	K	Joback Method
tf	497.72	K	Joback Method
vc	1.389	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1161.65	J/mol×K	901.94	Joback Method
cpg	1244.83	J/mol×K	1070.69	Joback Method
cpg	1230.44	J/mol×K	1036.94	Joback Method
cpg	1214.98	J/mol×K	1003.19	Joback Method
cpg	1198.39	J/mol×K	969.44	Joback Method
cpg	1180.63	J/mol×K	935.69	Joback Method
cpg	1258.20	J/mol×K	1104.44	Joback Method
dvisc	0.0000277	Pa×s	901.94	Joback Method
dvisc	0.0000369	Pa×s	834.57	Joback Method

dvisc	0.0000518	Pa×s	767.20	Joback Method
dvisc	0.0000775	Pa×s	699.83	Joback Method
dvisc	0.0001265	Pa×s	632.46	Joback Method
dvisc	0.0002320	Pa×s	565.09	Joback Method
dvisc	0.0005015	Pa×s	497.72	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U348855&Units=SI
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

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