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

Inchi: InChI=1S/C28H42O4/c1-3-5-7-9-11-13-15-17-23-31-27(29)25-19-21-26(22-20-25)28(30)
InchiKey: RQLZGPDLYCFJON-PHEQNACWSA-N
Formula: C28H42O4
SMILES: CCCCCC=CCCCOC(=O)c1ccc(C(=O)OCCCC=CCCCCC)cc1
Mol. weight [g/mol]: 442.63

Physical Properties

Property code	Value	Unit	Source
gf	-19.74	kJ/mol	Joback Method
hf	-651.35	kJ/mol	Joback Method
hfus	67.91	kJ/mol	Joback Method
hvap	99.09	kJ/mol	Joback Method
log10ws	-9.20		Crippen Method
logp	7.834		Crippen Method
mcvol	387.900	ml/mol	McGowan Method
pc	868.11	kPa	Joback Method
rinpol	3411.00		NIST Webbook
tb	1032.60	K	Joback Method
tc	1265.87	K	Joback Method
tf	578.42	K	Joback Method
vc	1.504	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1312.24	J/mol×K	1032.60	Joback Method
cpg	1330.08	J/mol×K	1071.48	Joback Method
cpg	1346.59	J/mol×K	1110.36	Joback Method
cpg	1361.87	J/mol×K	1149.23	Joback Method
cpg	1376.02	J/mol×K	1188.11	Joback Method
cpg	1389.14	J/mol×K	1226.99	Joback Method
cpg	1401.34	J/mol×K	1265.87	Joback Method
dvisc	0.0002030	Pa×s	578.42	Joback Method
dvisc	0.0000985	Pa×s	654.12	Joback Method

dvisc	0.0000555	Pa×s	729.81	Joback Method
dvisc	0.0000348	Pa×s	805.51	Joback Method
dvisc	0.0000237	Pa×s	881.21	Joback Method
dvisc	0.0000171	Pa×s	956.90	Joback Method
dvisc	0.0000130	Pa×s	1032.60	Joback Method

Sources

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=U356369&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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