Bis(tridecyl) phthalate

Other names:	1,2-Benzenedicarboxylic acid, ditridecyl ester
	Phthalic acid, ditridecyl ester
	Ditridecyl phthalate
	Polycizer 962-BPA
	Staflex DTDP
	Truflex DTDP
	DTDP
	Jayflex DTDP
	Nuoplaz
	1-Tridecanol, phthalate
	1,2-Benzenedicarboxylic acid, 1,2-ditridecyl ester
Inchi:	InChI=1S/C34H58O4/c1-3-5-7-9-11-13-15-17-19-21-25-29-37-33(35)31-27-23-24-28-32(
InchiKey:	YCZJVRCZIPDYHH-UHFFFAOYSA-N
Formula:	C34H58O4
SMILES:	CCCCCCCCCCCCCCOC(=O)c1ccccc1C(=O)OCCCCCCCCCCCCCC
Mol. weight [g/mol]:	530.82
CAS:	119-06-2

Physical Properties

Property code	Value	Unit	Source
gf	-129.66	kJ/mol	Joback Method
hf	-1009.63	kJ/mol	Joback Method
hfus	83.04	kJ/mol	Joback Method
hvap	112.53	kJ/mol	Joback Method
log10ws	-12.00		Crippen Method
logp	10.622		Crippen Method
mcvol	481.040	ml/mol	McGowan Method
pc	602.50	kPa	Joback Method
tb	1161.56	K	Joback Method
tc	1474.43	K	Joback Method
tf	656.20	K	Joback Method
vc	1.879	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1754.08	J/mol×K	1161.56	Joback Method
cpg	1775.18	J/mol×K	1213.70	Joback Method
cpg	1793.23	J/mol×K	1265.85	Joback Method
cpg	1808.45	J/mol×K	1317.99	Joback Method
cpg	1821.08	J/mol×K	1370.14	Joback Method
cpg	1831.34	J/mol×K	1422.28	Joback Method
cpg	1839.46	J/mol×K	1474.43	Joback Method
dvisc	0.0001062	Pa×s	656.20	Joback Method
dvisc	0.0000510	Pa×s	740.43	Joback Method
dvisc	0.0000284	Pa×s	824.65	Joback Method
dvisc	0.0000177	Pa×s	908.88	Joback Method
dvisc	0.0000119	Pa×s	993.11	Joback Method
dvisc	0.0000085	Pa×s	1077.33	Joback Method
dvisc	0.0000064	Pa×s	1161.56	Joback Method

Sources

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=C119062&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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