Phthalic acid, decyl 2,4-dimethylpent-3-yl ester

Inchi: InChI=1S/C25H40O4/c1-6-7-8-9-10-11-12-15-18-28-24(26)21-16-13-14-17-22(21)25(27)
InchiKey: OEDMKLVJTYWPEO-UHFFFAOYSA-N
Formula: C25H40O4
SMILES: CCCCCCCCCCOC(=O)c1ccccc1C(=O)OC(C(C)C)C(C)C
Mol. weight [g/mol]: 404.58

Physical Properties

Property code	Value	Unit	Source
gf	-212.76	kJ/mol	Joback Method
hf	-839.71	kJ/mol	Joback Method
hfus	49.16	kJ/mol	Joback Method
hvap	91.33	kJ/mol	Joback Method
log10ws	-7.86		Crippen Method
logp	6.822		Crippen Method
mcvol	354.230	ml/mol	McGowan Method
pc	985.16	kPa	Joback Method
rinpol	2699.00		NIST Webbook
tb	954.32	K	Joback Method
tc	1169.03	K	Joback Method
tf	509.77	K	Joback Method
vc	1.357	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1182.51	J/mol×K	954.32	Joback Method
cpg	1199.70	J/mol×K	990.10	Joback Method
cpg	1215.40	J/mol×K	1025.89	Joback Method
cpg	1229.65	J/mol×K	1061.67	Joback Method
cpg	1242.50	J/mol×K	1097.46	Joback Method
cpg	1253.98	J/mol×K	1133.24	Joback Method
cpg	1264.15	J/mol×K	1169.03	Joback Method
dvisc	0.0004901	Pa×s	509.77	Joback Method
dvisc	0.0002052	Pa×s	583.86	Joback Method

dvisc	0.0001046	Pa×s	657.95	Joback Method
dvisc	0.0000611	Pa×s	732.04	Joback Method
dvisc	0.0000394	Pa×s	806.14	Joback Method
dvisc	0.0000273	Pa×s	880.23	Joback Method
dvisc	0.0000201	Pa×s	954.32	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=U356849&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