Cyclopropanecarboxylic acid, trans-2-phenyl-, decyl ester

Inchi: InChI=1S/C20H30O2/c1-2-3-4-5-6-7-8-12-15-22-20(21)19-16-18(19)17-13-10-9-11-14-17

InchiKey: ZQYLMBIMMLXVCQ-UHFFFAOYSA-N

Formula: C20H30O2

SMILES: CCCCCCCCCCOC(=O)C1CC1c1ccccc1

Mol. weight [g/mol]: 302.45

Physical Properties

Property code	Value	Unit	Source
gf	49.05	kJ/mol	Joback Method
hf	-411.94	kJ/mol	Joback Method
hfus	43.59	kJ/mol	Joback Method
hvap	71.15	kJ/mol	Joback Method
log10ws	-5.78		Crippen Method
logp	5.474		Crippen Method
mcvol	265.480	ml/mol	McGowan Method
pc	1409.07	kPa	Joback Method
rinpol	2339.00		NIST Webbook
rinpol	2339.00		NIST Webbook
tb	762.04	K	Joback Method
tc	960.77	K	Joback Method
tf	427.44	K	Joback Method
vc	1.028	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	813.69	J/mol×K	762.04	Joback Method
cpg	832.57	J/mol×K	795.16	Joback Method
cpg	850.32	J/mol×K	828.28	Joback Method
cpg	867.01	J/mol×K	861.41	Joback Method
cpg	882.69	J/mol×K	894.53	Joback Method
cpg	897.41	J/mol×K	927.65	Joback Method
cpg	911.24	J/mol×K	960.77	Joback Method
dvisc	0.0017563	Pa×s	427.44	Joback Method

dvisc	0.0010711	Pa×s	483.21	Joback Method
dvisc	0.0007235	Pa×s	538.97	Joback Method
dvisc	0.0005261	Pa×s	594.74	Joback Method
dvisc	0.0004040	Pa×s	650.51	Joback Method
dvisc	0.0003235	Pa×s	706.27	Joback Method
dvisc	0.0002675	Pa×s	762.04	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=U406001&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