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

Inchi: InChI=1S/C25H40O2/c1-2-3-4-5-6-7-8-9-10-11-12-13-17-20-27-25(26)24-21-23(24)22-18

InchiKey: WXZGLCCTFUNMJJ-UHFFFAOYSA-N

Formula: C25H40O2

SMILES: CCCCCCCCCCCCCCCOC(=O)C1CC1c1ccccc1

Mol. weight [g/mol]: 372.58

Physical Properties

Property code	Value	Unit	Source
gf	91.15	kJ/mol	Joback Method
hf	-515.14	kJ/mol	Joback Method
hfus	56.54	kJ/mol	Joback Method
hvap	82.28	kJ/mol	Joback Method
log10ws	-7.87		Crippen Method
logp	7.425		Crippen Method
mcvol	335.930	ml/mol	McGowan Method
pc	1011.66	kPa	Joback Method
rinpol	2864.00		NIST Webbook
rinpol	2864.00		NIST Webbook
tb	876.44	K	Joback Method
tc	1077.65	K	Joback Method
tf	483.79	K	Joback Method
vc	1.308	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1117.13	J/mol×K	876.44	Joback Method
cpg	1136.96	J/mol×K	909.97	Joback Method
cpg	1155.60	J/mol×K	943.51	Joback Method
cpg	1173.11	J/mol×K	977.04	Joback Method
cpg	1189.58	J/mol×K	1010.58	Joback Method
cpg	1205.06	J/mol×K	1044.11	Joback Method
cpg	1219.64	J/mol×K	1077.65	Joback Method
dvisc	0.0012850	Pa×s	483.79	Joback Method

dvisc	0.0007288	Pa×s	549.23	Joback Method
dvisc	0.0004664	Pa×s	614.67	Joback Method
dvisc	0.0003253	Pa×s	680.12	Joback Method
dvisc	0.0002416	Pa×s	745.56	Joback Method
dvisc	0.0001883	Pa×s	811.00	Joback Method
dvisc	0.0001524	Pa×s	876.44	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U406006&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

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