

Cyclopropanecarboxylic acid, trans-2-phenyl-, dec-2-yl ester

Inchi:	InChI=1S/C20H30O2/c1-3-4-5-6-7-9-12-16(2)22-20(21)19-15-18(19)17-13-10-8-11-14-17
InchiKey:	VQHCJBPFXYPKU-UHFFFAOYSA-N
Formula:	C20H30O2
SMILES:	CCCCCCCCC(C)OC(=O)C1CC1c1ccccc1
Mol. weight [g/mol]:	302.45

Physical Properties

Property code	Value	Unit	Source
gf	46.61	kJ/mol	Joback Method
hf	-417.22	kJ/mol	Joback Method
hfus	40.07	kJ/mol	Joback Method
hvap	70.76	kJ/mol	Joback Method
log10ws	-5.89		Crippen Method
logp	5.472		Crippen Method
mcvol	265.480	ml/mol	McGowan Method
pc	1417.57	kPa	Joback Method
rinpol	2207.00		NIST Webbook
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tb	761.60	K	Joback Method
tc	963.01	K	Joback Method
tf	412.44	K	Joback Method
vc	1.022	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	814.19	J/molxK	761.60	Joback Method
cpg	833.32	J/molxK	795.17	Joback Method
cpg	851.30	J/molxK	828.74	Joback Method
cpg	868.17	J/molxK	862.31	Joback Method
cpg	883.99	J/molxK	895.87	Joback Method
cpg	898.84	J/molxK	929.44	Joback Method
cpg	912.75	J/molxK	963.01	Joback Method
dvisc	0.0019676	Paxs	412.44	Joback Method

dvisc	0.0011233	Paxs	470.63	Joback Method
dvisc	0.0007255	Paxs	528.83	Joback Method
dvisc	0.0005110	Paxs	587.02	Joback Method
dvisc	0.0003834	Paxs	645.21	Joback Method
dvisc	0.0003017	Paxs	703.41	Joback Method
dvisc	0.0002462	Paxs	761.60	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=U406845&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

Legend

cp_g:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
g_f:	Standard Gibbs free energy of formation
h_f:	Enthalpy of formation at standard conditions
h_{fus}:	Enthalpy of fusion at standard conditions
h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀w_s:	Log ₁₀ of Water solubility in mol/l
log_p:	Octanol/Water partition coefficient
mc_{vol}:	McGowan's characteristic volume
pc:	Critical Pressure
rin_{pol}:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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