Dicinnamoyl peroxide

Inchi: InChI=1S/C18H14O4/c19-17(13-11-15-7-3-1-4-8-15)21-22-18(20)14-12-16-9-5-2-6-10-16
InchiKey: YPWDLNYZZVNNKN-PHEQNACWSA-N
Formula: C18H14O4
SMILES: O=C(C=Cc1ccccc1)OOC(=O)C=Cc1ccccc1
Mol. weight [g/mol]: 294.30
CAS: 15036-31-4

Physical Properties

Property code	Value	Unit	Source
chs	-8727.80 ± 8.40	kJ/mol	NIST Webbook
gf	18.10	kJ/mol	Joback Method
hf	-196.95	kJ/mol	Joback Method
hfs	-356.10 ± 8.40	kJ/mol	NIST Webbook
hfus	36.44	kJ/mol	Joback Method
hvap	78.44	kJ/mol	Joback Method
log10ws	-4.32		Crippen Method
logp	3.415		Crippen Method
mcvol	223.240	ml/mol	McGowan Method
pc	2293.71	kPa	Joback Method
tb	825.50	K	Joback Method
tc	1068.73	K	Joback Method
tf	479.62	K	Joback Method
vc	0.836	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	616.36	J/mol×K	825.50	Joback Method
cpg	629.41	J/mol×K	866.04	Joback Method
cpg	641.30	J/mol×K	906.58	Joback Method
cpg	652.13	J/mol×K	947.12	Joback Method
cpg	661.97	J/mol×K	987.65	Joback Method
cpg	670.93	J/mol×K	1028.19	Joback Method
cpg	679.08	J/mol×K	1068.73	Joback Method

dvisc	0.0006135	Pa×s	479.62	Joback Method
dvisc	0.0003308	Pa×s	537.27	Joback Method
dvisc	0.0002010	Pa×s	594.91	Joback Method
dvisc	0.0001334	Pa×s	652.56	Joback Method
dvisc	0.0000946	Pa×s	710.21	Joback Method
dvisc	0.0000707	Pa×s	767.85	Joback Method
dvisc	0.0000550	Pa×s	825.50	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C15036314&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase 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

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.