

(2E,4E)-Methyl 5-(benzo[d][1,3]dioxol-5-yl)penta-2,4-dienoate

Inchi:	InChI=1S/C13H12O4/c1-15-13(14)5-3-2-4-10-6-7-11-12(8-10)17-9-16-11/h2-8H,9H2,1H3
InchiKey:	VOZJBFJHMHRLDN-ZUVMSYQZSA-N
Formula:	C13H12O4
SMILES:	COC(=O)C=CC=Cc1ccc2c(c1)OCO2
Mol. weight [g/mol]:	232.23
CAS:	6190-46-1

Physical Properties

Property code	Value	Unit	Source
gf	-25.53	kJ/mol	Joback Method
hf	-279.28	kJ/mol	Joback Method
hfus	38.90	kJ/mol	Joback Method
hvap	66.45	kJ/mol	Joback Method
log10ws	-2.90		Crippen Method
logp	2.158		Crippen Method
mvol	169.990	ml/mol	McGowan Method
pc	2859.68	kPa	Joback Method
rinpol	2081.70		NIST Webbook
rinpol	2081.70		NIST Webbook
tb	683.40	K	Joback Method
tc	915.31	K	Joback Method
tf	425.05	K	Joback Method
vc	0.639	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	440.74	J/mol×K	683.40	Joback Method
cpg	453.47	J/mol×K	722.05	Joback Method
cpg	465.30	J/mol×K	760.70	Joback Method
cpg	476.31	J/mol×K	799.35	Joback Method
cpg	486.60	J/mol×K	838.01	Joback Method
cpg	496.26	J/mol×K	876.66	Joback Method
cpg	505.37	J/mol×K	915.31	Joback Method

dvisc	0.0013437	Paxs	425.05	Joback Method
dvisc	0.0008770	Paxs	468.11	Joback Method
dvisc	0.0006150	Paxs	511.17	Joback Method
dvisc	0.0004558	Paxs	554.23	Joback Method
dvisc	0.0003527	Paxs	597.28	Joback Method
dvisc	0.0002825	Paxs	640.34	Joback Method
dvisc	0.0002326	Paxs	683.40	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C6190461&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

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