

Cyclopropane-1,2-dicarboxylic acid dimethyl ester, Z

Inchi:	InChI=1S/C7H10O4/c1-10-6(8)4-3-5(4)7(9)11-2/h4-5H,3H2,1-2H3/t4-,5+
InchiKey:	JBVOSZYUSFDYIN-SYDPRGILSA-N
Formula:	C7H10O4
SMILES:	COC(=O)C1CC1C(=O)OC
Mol. weight [g/mol]:	158.15

Physical Properties

Property code	Value	Unit	Source
gf	-406.74	kJ/mol	Joback Method
hf	-624.95	kJ/mol	Joback Method
hfus	18.67	kJ/mol	Joback Method
hvap	49.09	kJ/mol	Joback Method
log10ws	0.11		Crippen Method
logp	-0.032		Crippen Method
mcvol	113.510	ml/mol	McGowan Method
pc	3456.14	kPa	Joback Method
rinpol	1101.00		NIST Webbook
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tb	514.21	K	Joback Method
tc	713.66	K	Joback Method
tf	326.67	K	Joback Method
vc	0.431	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	264.77	J/mol×K	514.21	Joback Method
cpg	276.25	J/mol×K	547.45	Joback Method
cpg	287.21	J/mol×K	580.69	Joback Method
cpg	297.65	J/mol×K	613.94	Joback Method
cpg	307.57	J/mol×K	647.18	Joback Method
cpg	316.97	J/mol×K	680.42	Joback Method
cpg	325.87	J/mol×K	713.66	Joback Method
dvisc	0.0015664	Paxs	326.67	Joback Method

dvisc	0.0012175	Paxs	357.93	Joback Method
dvisc	0.0009854	Paxs	389.18	Joback Method
dvisc	0.0008230	Paxs	420.44	Joback Method
dvisc	0.0007048	Paxs	451.70	Joback Method
dvisc	0.0006157	Paxs	482.95	Joback Method
dvisc	0.0005468	Paxs	514.21	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R249444&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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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