

Cinnamic aldehyde, dimethyl acetal

Other names:	(3,3-dimethoxypropen-1-yl)benzene
Inchi:	InChI=1S/C11H14O2/c1-12-11(13-2)9-8-10-6-4-3-5-7-10/h3-9,11H,1-2H3/b9-8+
InchiKey:	MBAOABFNWSOOLU-CMDGGOBGSA-N
Formula:	C11H14O2
SMILES:	COC(C=Cc1ccccc1)OC
Mol. weight [g/mol]:	178.23
CAS:	4364-06-1

Physical Properties

Property code	Value	Unit	Source
gf	21.93	kJ/mol	Joback Method
hf	-186.34	kJ/mol	Joback Method
hfus	17.34	kJ/mol	Joback Method
hvap	46.75	kJ/mol	Joback Method
log10ws	-2.33		Crippen Method
logp	2.319		Crippen Method
mcvol	149.530	ml/mol	McGowan Method
pc	2721.17	kPa	Joback Method
tb	526.32	K	Joback Method
tc	738.85	K	Joback Method
tf	264.53	K	Joback Method
vc	0.553	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	333.33	J/molxK	526.32	Joback Method
cpg	401.47	J/molxK	703.43	Joback Method
cpg	389.42	J/molxK	668.01	Joback Method
cpg	376.60	J/molxK	632.59	Joback Method
cpg	363.00	J/molxK	597.16	Joback Method
cpg	348.58	J/molxK	561.74	Joback Method
cpg	412.77	J/molxK	738.85	Joback Method
dvisc	0.0001219	Paxs	526.32	Joback Method

dvisc	0.0001615	Paxs	482.69	Joback Method
dvisc	0.0002263	Paxs	439.06	Joback Method
dvisc	0.0003416	Paxs	395.42	Joback Method
dvisc	0.0005710	Paxs	351.79	Joback Method
dvisc	0.0011038	Paxs	308.16	Joback Method
dvisc	0.0026523	Paxs	264.53	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4364061&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

Legend

cp_g:	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:	Log ₁₀ 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

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