

4,5-Dichloro-1,3-dioxolan-2-one

Other names:	1,2-Dichloro ethylene carbonate 1,3-Dioxolan-2-one, 4,5-dichloro- Carbonic acid, cyclic 1,2-dichloroethylene ester Cyclic 1,2-dichloroethylene carbonate 1,3-Dioxolane, 4,5-dichloro-2-oxo- 4,5-Dichloro-1,3-dioxolane-2-one
Inchi:	InChI=1S/C3H2Cl2O3/c4-1-2(5)8-3(6)7-1/h1-2H
InchiKey:	BETICXVUVYXEJX-UHFFFAOYSA-N
Formula:	C3H2Cl2O3
SMILES:	O=C1OC(Cl)C(Cl)O1
Mol. weight [g/mol]:	156.95
CAS:	3967-55-3

Physical Properties

Property code	Value	Unit	Source
gf	-315.47	kJ/mol	Joback Method
hf	-498.29	kJ/mol	Joback Method
hfus	22.39	kJ/mol	Joback Method
hvap	44.26	kJ/mol	Joback Method
log10ws	-1.42		Crippen Method
logp	1.283		Crippen Method
mcvol	80.060	ml/mol	McGowan Method
pc	4987.39	kPa	Joback Method
tb	475.23	K	Joback Method
tc	714.19	K	Joback Method
tf	311.43	K	Joback Method
vc	0.290	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	149.55	J/mol×K	475.23	Joback Method
cpg	157.37	J/mol×K	515.06	Joback Method
cpg	164.87	J/mol×K	554.88	Joback Method

cpg	172.04	J/mol×K	594.71	Joback Method
cpg	178.83	J/mol×K	634.54	Joback Method
cpg	185.22	J/mol×K	674.37	Joback Method
cpg	191.18	J/mol×K	714.19	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3967553&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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:

<https://www.chemeo.com/cid/98-724-0/4-5-Dichloro-1-3-dioxolan-2-one.pdf>

Generated by Cheméo on 2025-12-21 21:28:19.217318211 +0000 UTC m=+6100696.747358864.

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