

2,2-dichloroethyl pentanoate

Inchi: InChI=1S/C7H12Cl2O2/c1-2-3-4-7(10)11-5-6(8)9/h6H,2-5H2,1H3
InchiKey: BVCTXKLIWBDXTL-UHFFFAOYSA-N
Formula: C7H12Cl2O2
SMILES: CCCCC(=O)OCC(Cl)Cl
Mol. weight [g/mol]: 199.07

Physical Properties

Property code	Value	Unit	Source
gf	-252.16	kJ/mol	Joback Method
hf	-469.37	kJ/mol	Joback Method
hfus	21.54	kJ/mol	Joback Method
hvap	48.71	kJ/mol	Joback Method
log10ws	-2.53		Crippen Method
logp	2.524		Crippen Method
mcvol	141.410	ml/mol	McGowan Method
pc	2741.15	kPa	Joback Method
ripol	1178.00		NIST Webbook
ripol	1184.00		NIST Webbook
ripol	1178.00		NIST Webbook
ripol	1200.00		NIST Webbook
ripol	1180.00		NIST Webbook
ripol	1191.00		NIST Webbook
ripol	1660.00		NIST Webbook
ripol	1678.00		NIST Webbook
ripol	1685.00		NIST Webbook
ripol	1669.00		NIST Webbook
ripol	1705.00		NIST Webbook
ripol	1657.00		NIST Webbook
ripol	1678.00		NIST Webbook
tb	510.27	K	Joback Method
tc	702.42	K	Joback Method
tf	285.65	K	Joback Method
vc	0.543	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	290.96	J/molxK	510.27	Joback Method
cpg	301.62	J/molxK	542.29	Joback Method
cpg	311.82	J/molxK	574.32	Joback Method
cpg	321.54	J/molxK	606.34	Joback Method
cpg	330.81	J/molxK	638.37	Joback Method
cpg	339.62	J/molxK	670.39	Joback Method
cpg	347.98	J/molxK	702.42	Joback Method
dvisc	0.0037541	Paxs	285.65	Joback Method
dvisc	0.0018698	Paxs	323.09	Joback Method
dvisc	0.0010763	Paxs	360.52	Joback Method
dvisc	0.0006874	Paxs	397.96	Joback Method
dvisc	0.0004742	Paxs	435.40	Joback Method
dvisc	0.0003470	Paxs	472.83	Joback Method
dvisc	0.0002658	Paxs	510.27	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R30705&Units=SI

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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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