Pentanedioyl dichloride

Other names:	Glutaryl dichloride
	Glutaryl chloride
	Glutaric acid dichloride
	Glutaroyl chloride
	1,3-Bis(Chlorocarbonyl)propane
Inchi:	InChI=1S/C5H6Cl2O2/c6-4(8)2-1-3-5(7)9/h1-3H2
InchiKey:	YVOFTMXWTWHRBH-UHFFFAOYSA-N
Formula:	C5H6Cl2O2
SMILES:	O=C(Cl)CCCC(=O)Cl
Mol. weight [g/mol]:	169.01
CAS:	2873-74-7

Physical Properties

Property code	Value	Unit	Source
gf	-290.48	kJ/mol	Joback Method
hf	-403.17	kJ/mol	Joback Method
hfus	20.30	kJ/mol	Joback Method
hvap	48.99	kJ/mol	Joback Method
log10ws	-1.77		Crippen Method
logp	1.688		Crippen Method
mcvol	108.930	ml/mol	McGowan Method
pc	3690.97	kPa	Joback Method
tb	490.20	K	NIST Webbook
tc	700.44	K	Joback Method
tf	305.81	K	Joback Method
vc	0.425	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	199.37	J/mol×K	496.40	Joback Method
cpg	206.72	J/mol×K	530.41	Joback Method
cpg	213.67	J/mol×K	564.41	Joback Method
cpg	220.23	J/mol×K	598.42	Joback Method

cpg	226.40	J/mol×K	632.43	Joback Method
cpg	232.20	J/mol×K	666.43	Joback Method
cpg	237.65	J/mol×K	700.44	Joback Method
dvisc	0.0033064	Pa×s	305.81	Joback Method
dvisc	0.0020108	Pa×s	337.57	Joback Method
dvisc	0.0013321	Pa×s	369.34	Joback Method
dvisc	0.0009420	Pa×s	401.11	Joback Method
dvisc	0.0007008	Pa×s	432.87	Joback Method
dvisc	0.0005429	Pa×s	464.63	Joback Method
dvisc	0.0004346	Pa×s	496.40	Joback Method
hvapt	55.90	kJ/mol	409.50	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	380.50 ± 0.50	K	2.10	NIST Webbook

Sources

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=C2873747&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
hvapt: Enthalpy of vaporization at a given temperature
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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume