2-Propenoyl chloride

Other names:	Acryloyl chloride
	Acrylic acid chloride
	Acrylyl chloride
	Propenoyl chloride
	Chlorid kyseliny akrylove
Inchi:	InChI=1S/C3H3ClO/c1-2-3(4)5/h2H,1H2
InchiKey:	HFBMWMNUJJDEQZ-UHFFFAOYSA-N
Formula:	C3H3ClO
SMILES:	C=CC(=O)Cl
Mol. weight [g/mol]:	90.51
CAS:	814-68-6

Physical Properties

Property code	Value	Unit	Source
gf	-78.63	kJ/mol	Joback Method
hf	-108.14	kJ/mol	Joback Method
hfus	8.04	kJ/mol	Joback Method
hvap	32.73	kJ/mol	Joback Method
log10ws	-0.86		Crippen Method
logp	0.938		Crippen Method
mcvol	62.640	ml/mol	McGowan Method
pc	4835.95	kPa	Joback Method
tb	348.70	K	NIST Webbook
tb	347.20	K	NIST Webbook
tb	348.00	K	NIST Webbook
tc	548.68	K	Joback Method
tf	201.66	K	Joback Method
vc	0.239	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	86.67	J/mol×K	356.02	Joback Method
cpg	91.26	J/mol×K	388.13	Joback Method

cpg	95.62	J/mol×K	420.24	Joback Method
cpg	99.74	J/mol×K	452.35	Joback Method
cpg	103.64	J/mol×K	484.46	Joback Method
cpg	107.33	J/mol×K	516.57	Joback Method
cpg	110.82	J/mol×K	548.68	Joback Method
dvisc	0.0025952	Pa×s	201.66	Joback Method
dvisc	0.0015270	Pa×s	227.39	Joback Method
dvisc	0.0010008	Pa×s	253.11	Joback Method
dvisc	0.0007091	Pa×s	278.84	Joback Method
dvisc	0.0005325	Pa×s	304.57	Joback Method
dvisc	0.0004182	Pa×s	330.29	Joback Method
dvisc	0.0003400	Pa×s	356.02	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C814686&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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume