Allyl fluoride

Other names:	1-Fluoro-2-propene
	1-Propene, 3-fluoro-
	3-Fluoro-1-propene
	3-Fluoropropene
	3-Fluoropropylene
	CH2=CHCH2F
	Propene, 3-fluoro-
Inchi:	InChI=1S/C3H5F/c1-2-3-4/h2H,1,3H2
InchiKey:	QCMKXHXKNIOBBC-UHFFFAOYSA-N
Formula:	C3H5F
SMILES:	C=CCF
Mol. weight [g/mol]:	60.07
CAS:	818-92-8

Physical Properties

Property code	Value	Unit	Source
gf	-132.59	kJ/mol	Joback Method
hf	-175.93	kJ/mol	Joback Method
hfus	5.33	kJ/mol	Joback Method
hvap	20.79	kJ/mol	Joback Method
ie	10.56	eV	NIST Webbook
ie	10.38	eV	NIST Webbook
ie	10.11	eV	NIST Webbook
log10ws	-0.79		Crippen Method
logp	1.142		Crippen Method
mcvol	50.600	ml/mol	McGowan Method
pc	4391.59	kPa	Joback Method
rinpol	380.00		NIST Webbook
tb	263.00	K	NIST Webbook
tc	416.81	K	Joback Method
tf	122.40	K	Joback Method
vc	0.203	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	65.76	J/mol×K	263.99	Joback Method
cpg	70.66	J/mol×K	289.46	Joback Method
cpg	75.39	J/mol×K	314.93	Joback Method
cpg	79.94	J/mol×K	340.40	Joback Method
cpg	84.33	J/mol×K	365.87	Joback Method
cpg	88.55	J/mol×K	391.34	Joback Method
cpg	92.61	J/mol×K	416.81	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.66321e+01
Coeff. B	-2.96437e+03
Coeff. C	-1.62520e+01
Temperature range (K), min.	197.62
Temperature range (K), max.	287.51

Sources

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=C818928&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume