Benzene, 1-ethenyl-4-fluoro-

Other names:	Styrene, p-fluoro-
	p-Fluorostyrene
	4-Fluorostyrene
	para-Fluorostyrene
Inchi:	InChI=1S/C8H7F/c1-2-7-3-5-8(9)6-4-7/h2-6H,1H2
InchiKey:	JWVTWJNGILGLAT-UHFFFAOYSA-N
Formula:	C8H7F
SMILES:	C=Cc1ccc(F)cc1
Mol. weight [g/mol]:	122.14
CAS:	405-99-2

Physical Properties

Property code	Value	Unit	Source
gf	12.29	kJ/mol	Joback Method
hf	-54.07	kJ/mol	Joback Method
hfus	11.93	kJ/mol	Joback Method
hvap	34.85	kJ/mol	Joback Method
log10ws	-2.63		Crippen Method
logp	2.469		Crippen Method
mcvol	97.290	ml/mol	McGowan Method
pc	3572.80	kPa	Joback Method
rinpol	904.00		NIST Webbook
rinpol	904.00		NIST Webbook
rinpol	894.00		NIST Webbook
tb	410.05	K	Joback Method
tc	613.88	K	Joback Method
tf	217.69	K	Joback Method
vc	0.374	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	169.86	J/mol×K	410.05	Joback Method
cpg	180.79	J/mol×K	444.02	Joback Method

cpg	191.09	J/mol×K	477.99	Joback Method
cpg	200.80	J/mol×K	511.96	Joback Method
cpg	209.92	J/mol×K	545.94	Joback Method
cpg	218.50	J/mol×K	579.91	Joback Method
cpg	226.55	J/mol×K	613.88	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	340.60	K	6.70	NIST Webbook
tbrp	302.70	K	0.50	NIST Webbook

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C405992&Units=SI

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
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tbrp: Boiling point at reduced pressure
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume