

Oxirane, (fluoromethyl)-

Other names:	Propane, 1,2-epoxy-3-fluoro- Epifluorhydrine Epifluorohydrin 1,2-Epoxy-3-fluoropropane 3-Fluoropropene-1,2-oxide
Inchi:	InChI=1S/C3H5FO/c4-1-3-2-5-3/h3H,1-2H2
InchiKey:	OIFAHDXIUURLN-UHFFFAOYSA-N
Formula:	C3H5FO
SMILES:	FCC1CO1
Mol. weight [g/mol]:	76.07
CAS:	503-09-3

Physical Properties

Property code	Value	Unit	Source
gf	-245.80	kJ/mol	Joback Method
hf	-360.56	kJ/mol	Joback Method
hfus	12.72	kJ/mol	Joback Method
hvap	25.88	kJ/mol	Joback Method
ie	10.74	eV	NIST Webbook
ie	10.74	eV	NIST Webbook
ie	10.78	eV	NIST Webbook
log10ws	-0.03		Crippen Method
logp	0.355		Crippen Method
mcvol	49.910	ml/mol	McGowan Method
pc	4890.21	kPa	Joback Method
tb	358.70	K	NIST Webbook
tc	470.32	K	Joback Method
tf	168.67	K	Joback Method
vc	0.200	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	78.81	J/molxK	301.00	Joback Method

cpg	86.05	J/mol×K	329.22	Joback Method
cpg	92.89	J/mol×K	357.44	Joback Method
cpg	99.37	J/mol×K	385.66	Joback Method
cpg	105.49	J/mol×K	413.88	Joback Method
cpg	111.27	J/mol×K	442.10	Joback Method
cpg	116.73	J/mol×K	470.32	Joback Method
hvapt	39.90	kJ/mol	303.00	NIST Webbook

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=C503093&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
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
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

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