

Ethyl radical, 1-fluoro-

Inchi: InChI=1S/C2H4F/c1-2-3/h2H,1H3
InchiKey: HJNAGGRRBGTYJL-UHFFFAOYSA-N
Formula: C2H4F
SMILES: C[CH]F
Mol. weight [g/mol]: 47.05
CAS: 52067-19-3

Physical Properties

Property code	Value	Unit	Source
gf	-178.91	kJ/mol	Joback Method
hf	-230.19	kJ/mol	Joback Method
hfus	2.17	kJ/mol	Joback Method
hvap	18.69	kJ/mol	Joback Method
log10ws	-0.62		Crippen Method
logp	1.138		Crippen Method
mcvol	38.660	ml/mol	McGowan Method
pc	5080.25	kPa	Joback Method
tb	243.29	K	Joback Method
tc	390.88	K	Joback Method
tf	114.26	K	Joback Method
vc	0.150	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	44.97	J/mol×K	243.29	Joback Method
cpg	49.39	J/mol×K	267.89	Joback Method
cpg	53.56	J/mol×K	292.49	Joback Method
cpg	57.49	J/mol×K	317.09	Joback Method
cpg	61.18	J/mol×K	341.68	Joback Method
cpg	64.66	J/mol×K	366.28	Joback Method
cpg	67.92	J/mol×K	390.88	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C52067193&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
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

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