1-Propene, 3,3,3-trifluoro-2-methyl-

Other names: Propene, 3,3,3-trifluoro-2-methyl-
3,3,3-Trifluoro-2-methylpropene
CH3C(CF3)=CH2
2-Trifluoromethylpropene
Inchi: InChI=1S/C4H5F3/c1-3(2)4(5,6)7/h1H2,2H3
InchiKey: VJOAJCOCCYFXPR-UHFFFAOYSA-N
Formula: C4H5F3
SMILES: C=C(C)C(F)(F)F
Mol. weight [g/mol]: 110.08
CAS: 374-00-5

Physical Properties

Property code	Value	Unit	Source
gf	-519.50	kJ/mol	Joback Method
hf	-607.33	kJ/mol	Joback Method
hfus	5.35	kJ/mol	Joback Method
hvap	20.16	kJ/mol	Joback Method
log10ws	-2.01		Crippen Method
logp	2.125		Crippen Method
mcvol	68.230	ml/mol	McGowan Method
pc	3581.35	kPa	Joback Method
tb	279.50 ± 0.50	K	NIST Webbook
tc	432.30	K	Joback Method
tf	123.31	K	Joback Method
vc	0.284	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	106.66	J/mol×K	282.06	Joback Method
cpg	114.26	J/mol×K	307.10	Joback Method
cpg	121.47	J/mol×K	332.14	Joback Method
cpg	128.30	J/mol×K	357.18	Joback Method
cpg	134.78	J/mol×K	382.22	Joback Method

cpg	140.92	J/mol×K	407.26	Joback Method
cpg	146.72	J/mol×K	432.30	Joback Method

Sources

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=C374005&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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