

# 1-Propene, 1,1,2-trichloro-3,3,3-trifluoro-

<b>Other names:</b>	Propene, 1,1,2-trichloro-3,3,3-trifluoro- 1,1,2-Trichlorotrifluoro-1-propene 1,1,2-Trichloro-3,3,3-trifluoropropene 1,1,1-Trifluoro-2,3,3-trichloro-2-propene 1,1,2-Trichloro-3,3,3-trifluoropropene-1 1,1,1-Trifluoro-2,3,3-trichloropropene
<b>Inchi:</b>	InChI=1S/C3Cl3F3/c4-1(2(5)6)3(7,8)9
<b>InchiKey:</b>	QSSVZVNYQIGOJR-UHFFFAOYSA-N
<b>Formula:</b>	C3Cl3F3
<b>SMILES:</b>	FC(F)(F)C(Cl)=C(Cl)Cl
<b>Mol. weight [g/mol]:</b>	199.39
<b>CAS:</b>	431-52-7

## Physical Properties

Property code	Value	Unit	Source
gf	-579.88	kJ/mol	Joback Method
hf	-651.91	kJ/mol	Joback Method
hfus	15.52	kJ/mol	Joback Method
hvap	31.80	kJ/mol	Joback Method
log10ws	-3.54		Crippen Method
logp	3.434		Crippen Method
mcvol	90.860	ml/mol	McGowan Method
pc	3581.35	kPa	Joback Method
tb	378.83	K	Joback Method
tc	568.33	K	Joback Method
tf	184.52	K	Joback Method
vc	0.376	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	141.98	J/mol×K	378.83	Joback Method
cpg	147.57	J/mol×K	410.41	Joback Method
cpg	152.61	J/mol×K	442.00	Joback Method

cpg	157.14	J/mol×K	473.58	Joback Method
cpg	161.20	J/mol×K	505.16	Joback Method
cpg	164.82	J/mol×K	536.74	Joback Method
cpg	168.03	J/mol×K	568.33	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C431527&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C431527&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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