

# Trichloroacrylic acid

<b>Other names:</b>	2,3,3-trichloroacrylic acid
<b>Inchi:</b>	InChI=1S/C3HCl3O2/c4-1(2(5)6)3(7)8/h(H,7,8)
<b>InchiKey:</b>	WMUBNWIGNSIRDH-UHFFFAOYSA-N
<b>Formula:</b>	C3HCl3O2
<b>SMILES:</b>	O=C(O)C(Cl)=C(Cl)Cl
<b>Mol. weight [g/mol]:</b>	175.40
<b>CAS:</b>	2257-35-4

## Physical Properties

Property code	Value	Unit	Source
gf	-264.03	kJ/mol	Joback Method
hf	-319.64	kJ/mol	Joback Method
hfus	19.39	kJ/mol	Joback Method
hvap	58.97	kJ/mol	Joback Method
log10ws	-1.98		Crippen Method
logp	1.957		Crippen Method
mcvol	92.990	ml/mol	McGowan Method
pc	5102.04	kPa	Joback Method
tb	530.30	K	Joback Method
tc	739.34	K	Joback Method
tf	291.08	K	Joback Method
vc	0.357	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	146.41	J/molxK	530.30	Joback Method
cpg	149.84	J/molxK	565.14	Joback Method
cpg	152.97	J/molxK	599.98	Joback Method
cpg	155.82	J/molxK	634.82	Joback Method
cpg	158.42	J/molxK	669.66	Joback Method
cpg	160.79	J/molxK	704.50	Joback Method
cpg	162.96	J/molxK	739.34	Joback Method

# Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C2257354&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C2257354&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</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>hvp:</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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