

# Formic acid, 10-chlorodecyl ester

<b>Inchi:</b>	InChI=1S/C11H21ClO2/c12-9-7-5-3-1-2-4-6-8-10-14-11-13/h11H,1-10H2
<b>InchiKey:</b>	ORBAMDCGAZOWOI-UHFFFAOYSA-N
<b>Formula:</b>	C11H21ClO2
<b>SMILES:</b>	O=COC10CCCCCCCCC1
<b>Mol. weight [g/mol]:</b>	220.74

## Physical Properties

Property code	Value	Unit	Source
gf	-174.71	kJ/mol	Joback Method
hf	-503.91	kJ/mol	Joback Method
hfus	31.92	kJ/mol	Joback Method
hvap	53.59	kJ/mol	Joback Method
log10ws	-3.44		Crippen Method
logp	3.519		Crippen Method
mvol	185.530	ml/mol	McGowan Method
pc	1968.30	kPa	Joback Method
rinpol	1630.00		NIST Webbook
rinpol	1630.00		NIST Webbook
tb	559.59	K	Joback Method
tc	731.79	K	Joback Method
tf	307.88	K	Joback Method
vc	0.736	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	446.96	J/molxK	559.59	Joback Method
cpg	461.03	J/molxK	588.29	Joback Method
cpg	474.53	J/molxK	616.99	Joback Method
cpg	487.46	J/molxK	645.69	Joback Method
cpg	499.83	J/molxK	674.39	Joback Method
cpg	511.66	J/molxK	703.09	Joback Method
cpg	522.94	J/molxK	731.79	Joback Method
dvisc	0.0031610	Paxs	307.88	Joback Method

dvisc	0.0015484	Paxs	349.83	Joback Method
dvisc	0.0008837	Paxs	391.78	Joback Method
dvisc	0.0005622	Paxs	433.73	Joback Method
dvisc	0.0003873	Paxs	475.69	Joback Method
dvisc	0.0002835	Paxs	517.64	Joback Method
dvisc	0.0002174	Paxs	559.59	Joback Method

## Sources

<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>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U368751&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U368751&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>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<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>rinpol:</b>	Non-polar retention indices
<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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