

# Malonic acid, di(10-chlorodecyl) ester

<b>Inchi:</b>	InChI=1S/C23H42Cl2O4/c24-17-13-9-5-1-3-7-11-15-19-28-22(26)21-23(27)29-20-16-12-
<b>InchiKey:</b>	PSRUFBQUTBXALV-UHFFFAOYSA-N
<b>Formula:</b>	C23H42Cl2O4
<b>SMILES:</b>	O=C(CC(=O)OCCCCCCCCCCCCI)OCCCCCCCCCCCCI
<b>Mol. weight [g/mol]:</b>	453.48

## Physical Properties

Property code	Value	Unit	Source
gf	-348.92	kJ/mol	Joback Method
hf	-1039.13	kJ/mol	Joback Method
hfus	69.29	kJ/mol	Joback Method
hvap	93.87	kJ/mol	Joback Method
log10ws	-7.48		Crippen Method
logp	7.182		Crippen Method
mcvol	374.290	ml/mol	McGowan Method
pc	861.00	kPa	Joback Method
rinpola	3264.00		NIST Webbook
rinpola	3264.00		NIST Webbook
tb	953.08	K	Joback Method
tc	1169.74	K	Joback Method
tf	553.13	K	Joback Method
vc	1.470	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1214.65	J/molxK	953.08	Joback Method
cpg	1289.62	J/molxK	1133.63	Joback Method
cpg	1277.35	J/molxK	1097.52	Joback Method
cpg	1263.76	J/molxK	1061.41	Joback Method
cpg	1248.81	J/molxK	1025.30	Joback Method
cpg	1232.45	J/molxK	989.19	Joback Method
cpg	1300.62	J/molxK	1169.74	Joback Method
dvisc	0.0000241	Paxs	953.08	Joback Method

dvisc	0.0000319	Paxs	886.42	Joback Method
dvisc	0.0000442	Paxs	819.76	Joback Method
dvisc	0.0000649	Paxs	753.11	Joback Method
dvisc	0.0001026	Paxs	686.45	Joback Method
dvisc	0.0001791	Paxs	619.79	Joback Method
dvisc	0.0003575	Paxs	553.13	Joback Method

## Sources

<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=U349043&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U349043&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>

## Legend

<b>cp<sub>g</sub>:</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>log<sub>10</sub>ws:</b>	Log <sub>10</sub> of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>m<sub>cvol</sub>:</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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