

# Carbonic acid, decyl nonyl ester

<b>Inchi:</b>	InChI=1S/C20H40O3/c1-3-5-7-9-11-13-15-17-19-23-20(21)22-18-16-14-12-10-8-6-4-2/h3
<b>InchiKey:</b>	KXOQSMVFTPOGKJ-UHFFFAOYSA-N
<b>Formula:</b>	C20H40O3
<b>SMILES:</b>	CCCCCCCCCOC(=O)CCCCCCCCCC
<b>Mol. weight [g/mol]:</b>	328.53

## Physical Properties

Property code	Value	Unit	Source
gf	-221.40	kJ/mol	Joback Method
hf	-833.15	kJ/mol	Joback Method
hfus	51.53	kJ/mol	Joback Method
hvap	71.68	kJ/mol	Joback Method
log10ws	-7.12		Crippen Method
logp	7.031		Crippen Method
mvol	305.970	ml/mol	McGowan Method
pc	1034.57	kPa	Joback Method
rinpol	2227.00		NIST Webbook
rinpol	2227.00		NIST Webbook
tb	755.71	K	Joback Method
tc	929.49	K	Joback Method
tf	409.55	K	Joback Method
vc	1.198	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	941.52	J/molxK	755.71	Joback Method
cpg	961.02	J/molxK	784.67	Joback Method
cpg	979.57	J/molxK	813.64	Joback Method
cpg	997.19	J/molxK	842.60	Joback Method
cpg	1013.87	J/molxK	871.56	Joback Method
cpg	1029.66	J/molxK	900.53	Joback Method
cpg	1044.55	J/molxK	929.49	Joback Method
dvisc	0.0011174	Paxs	409.55	Joback Method

dvisc	0.0004975	Paxs	467.24	Joback Method
dvisc	0.0002646	Paxs	524.94	Joback Method
dvisc	0.0001595	Paxs	582.63	Joback Method
dvisc	0.0001053	Paxs	640.32	Joback Method
dvisc	0.0000745	Paxs	698.02	Joback Method
dvisc	0.0000555	Paxs	755.71	Joback Method

## Sources

<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=U383158&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U383158&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>

## 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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