

# Carbonic acid, 2-ethylhexyl tetradecyl ester

<b>Inchi:</b>	InChI=1S/C23H46O3/c1-4-7-9-10-11-12-13-14-15-16-17-18-20-25-23(24)26-21-22(6-3)1
<b>InchiKey:</b>	UNPSFFUCGOGEX-UHFFFAOYSA-N
<b>Formula:</b>	C23H46O3
<b>SMILES:</b>	CCCCCCCCCCCCCOC(=O)OCC(CC)CCCC
<b>Mol. weight [g/mol]:</b>	370.61

## Physical Properties

Property code	Value	Unit	Source
gf	-198.58	kJ/mol	Joback Method
hf	-900.35	kJ/mol	Joback Method
hfus	55.78	kJ/mol	Joback Method
hvap	77.97	kJ/mol	Joback Method
log10ws	-8.14		Crippen Method
logp	8.057		Crippen Method
mvol	348.240	ml/mol	McGowan Method
pc	870.68	kPa	Joback Method
rinpol	2441.00		NIST Webbook
rinpol	2441.00		NIST Webbook
tb	823.91	K	Joback Method
tc	1008.87	K	Joback Method
tf	428.36	K	Joback Method
vc	1.359	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1127.94	J/molxK	823.91	Joback Method
cpg	1221.44	J/molxK	978.05	Joback Method
cpg	1205.00	J/molxK	947.22	Joback Method
cpg	1187.46	J/molxK	916.39	Joback Method
cpg	1168.79	J/molxK	885.56	Joback Method
cpg	1148.95	J/molxK	854.74	Joback Method
cpg	1236.79	J/molxK	1008.87	Joback Method
dvisc	0.0000332	Paxs	823.91	Joback Method

dvisc	0.0000455	Paxs	757.98	Joback Method
dvisc	0.0000664	Paxs	692.06	Joback Method
dvisc	0.0001049	Paxs	626.13	Joback Method
dvisc	0.0001845	Paxs	560.21	Joback Method
dvisc	0.0003772	Paxs	494.28	Joback Method
dvisc	0.0009612	Paxs	428.36	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U383141&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U383141&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>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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