

# Adipic acid, 2-decyl hexadecyl ester

<b>Inchi:</b>	InChI=1S/C32H62O4/c1-4-6-8-10-12-13-14-15-16-17-18-19-21-25-29-35-31(33)27-23-24
<b>InchiKey:</b>	SAVXVRGQZIMUOG-UHFFFAOYSA-N
<b>Formula:</b>	C32H62O4
<b>SMILES:</b>	CCCCCCCCCCCCCCCCOC(=O)CCCC(=O)OC(C)CCCCCCCC
<b>Mol. weight [g/mol]:</b>	510.83

## Physical Properties

Property code	Value	Unit	Source
gf	-251.72	kJ/mol	Joback Method
hf	-1198.69	kJ/mol	Joback Method
hfus	80.69	kJ/mol	Joback Method
hvap	104.75	kJ/mol	Joback Method
log10ws	-11.05		Crippen Method
logp	10.254		Crippen Method
mvol	476.620	ml/mol	McGowan Method
pc	569.60	kPa	Joback Method
rinpol	3418.00		NIST Webbook
tb	1083.70	K	Joback Method
tc	1379.80	K	Joback Method
tf	579.72	K	Joback Method
vc	1.869	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1736.88	J/molxK	1083.70	Joback Method
cpg	1835.51	J/molxK	1330.45	Joback Method
cpg	1821.32	J/molxK	1281.10	Joback Method
cpg	1804.54	J/molxK	1231.75	Joback Method
cpg	1784.99	J/molxK	1182.40	Joback Method
cpg	1762.49	J/molxK	1133.05	Joback Method
cpg	1847.27	J/molxK	1379.80	Joback Method
dvisc	0.0000075	Paxs	1083.70	Joback Method
dvisc	0.0000103	Paxs	999.70	Joback Method

dvisc	0.0000150	Paxs	915.71	Joback Method
dvisc	0.0000236	Paxs	831.71	Joback Method
dvisc	0.0000410	Paxs	747.71	Joback Method
dvisc	0.0000821	Paxs	663.72	Joback Method
dvisc	0.0002008	Paxs	579.72	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U353609&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U353609&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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