

# Triacontanoic acid

<b>Other names:</b>	1-Triacontanoic acid Melissic acid Melissic acid,synthetic n-Triacontanoic acid
<b>Inchi:</b>	InChI=1S/C30H60O2/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24
<b>InchiKey:</b>	VHOCUJPBKOZGJD-UHFFFAOYSA-N
<b>Formula:</b>	C30H60O2
<b>SMILES:</b>	CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC(=O)O
<b>Mol. weight [g/mol]:</b>	452.80
<b>CAS:</b>	506-50-3

## Physical Properties

Property code	Value	Unit	Source
gf	-64.02	kJ/mol	Joback Method
hf	-927.34	kJ/mol	Joback Method
hfus	79.14	kJ/mol	Joback Method
hvap	105.80	kJ/mol	Joback Method
log10ws	-11.48		Crippen Method
logp	11.014		Crippen Method
mcvol	441.000	ml/mol	McGowan Method
pc	643.20	kPa	Joback Method
tb	1031.85	K	Joback Method
tc	1311.27	K	Joback Method
tf	538.61	K	Joback Method
vc	1.740	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1595.18	J/molxK	1031.85	Joback Method
cpg	1715.14	J/molxK	1264.70	Joback Method
cpg	1694.64	J/molxK	1218.13	Joback Method
cpg	1672.60	J/molxK	1171.56	Joback Method
cpg	1648.82	J/molxK	1124.99	Joback Method

cpg	1623.08	J/molxK	1078.42	Joback Method
cpg	1734.33	J/molxK	1311.27	Joback Method
dvisc	0.0000026	Paxs	1031.85	Joback Method
dvisc	0.0000041	Paxs	949.64	Joback Method
dvisc	0.0000068	Paxs	867.44	Joback Method
dvisc	0.0000125	Paxs	785.23	Joback Method
dvisc	0.0000268	Paxs	703.02	Joback Method
dvisc	0.0000699	Paxs	620.82	Joback Method
dvisc	0.0002451	Paxs	538.61	Joback Method

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	2.81198e+01
Coeff. B	-1.35755e+04
Coeff. C	-1.79160e+02
Temperature range (K), min.	666.92
Temperature range (K), max.	774.36

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C506503&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C506503&amp;Units=SI</a>
<b>The Yaws Handbook of Vapor Pressure:</b>	<a href="https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure">https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure</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>pvap:</b>	Vapor pressure
<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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