

# Glutaric acid, ethyl 1-methoxydec-4-yl ester

**Inchi:** InChI=1S/C18H34O5/c1-4-6-7-8-11-16(12-10-15-21-3)23-18(20)14-9-13-17(19)22-5-2/h1-16,20-23,25-28H,17-19,24H2,29H3  
**InchiKey:** CFHXMBKGZMRLEI-UHFFFAOYSA-N  
**Formula:** C18H34O5  
**SMILES:** CCCCCC(CCCOC)OC(=O)CCCC(=O)OCC  
**Mol. weight [g/mol]:** 330.46

## Physical Properties

Property code	Value	Unit	Source
gf	-474.60	kJ/mol	Joback Method
hf	-1041.95	kJ/mol	Joback Method
hfus	45.61	kJ/mol	Joback Method
hvap	76.00	kJ/mol	Joback Method
log10ws	-4.28		Crippen Method
logp	4.029		Crippen Method
mcvol	285.230	ml/mol	McGowan Method
pc	1219.99	kPa	Joback Method
rinpol	2167.00		NIST Webbook
rinpol	2167.00		NIST Webbook
tb	785.80	K	Joback Method
tc	967.95	K	Joback Method
tf	444.17	K	Joback Method
vc	1.103	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	880.97	J/molxK	785.80	Joback Method
cpg	898.29	J/molxK	816.16	Joback Method
cpg	914.61	J/molxK	846.52	Joback Method
cpg	929.94	J/molxK	876.87	Joback Method
cpg	944.29	J/molxK	907.23	Joback Method
cpg	957.65	J/molxK	937.59	Joback Method
cpg	970.03	J/molxK	967.95	Joback Method
dvisc	0.0008380	Paxs	444.17	Joback Method

dvisc	0.0003989	Paxs	501.11	Joback Method
dvisc	0.0002209	Paxs	558.05	Joback Method
dvisc	0.0001365	Paxs	614.98	Joback Method
dvisc	0.0000915	Paxs	671.92	Joback Method
dvisc	0.0000653	Paxs	728.86	Joback Method
dvisc	0.0000489	Paxs	785.80	Joback Method

## Sources

<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>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U358465&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U358465&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>

## 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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