

# Glutaric acid, dodecyl 5-methoxy-3-methylpent-2-yl ester

<b>Inchi:</b>	InChI=1S/C24H46O5/c1-5-6-7-8-9-10-11-12-13-14-19-28-23(25)16-15-17-24(26)29-22(3
<b>InchiKey:</b>	BLPHQGOWLDLBPS-UHFFFAOYSA-N
<b>Formula:</b>	C24H46O5
<b>SMILES:</b>	CCCCCCCCCCCCOC(=O)CCCC(=O)OC(C)C(C)CCOC
<b>Mol. weight [g/mol]:</b>	414.62

## Physical Properties

Property code	Value	Unit	Source
gf	-426.52	kJ/mol	Joback Method
hf	-1171.07	kJ/mol	Joback Method
hfus	57.63	kJ/mol	Joback Method
hvap	88.96	kJ/mol	Joback Method
log10ws	-6.55		Crippen Method
logp	6.225		Crippen Method
mvol	369.770	ml/mol	McGowan Method
pc	849.49	kPa	Joback Method
rinpol	2810.00		NIST Webbook
rinpol	2810.00		NIST Webbook
tb	922.64	K	Joback Method
tc	1131.32	K	Joback Method
tf	496.79	K	Joback Method
vc	1.433	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1250.53	J/molxK	922.64	Joback Method
cpg	1270.20	J/molxK	957.42	Joback Method
cpg	1288.29	J/molxK	992.20	Joback Method
cpg	1304.80	J/molxK	1026.98	Joback Method
cpg	1319.78	J/molxK	1061.76	Joback Method
cpg	1333.23	J/molxK	1096.54	Joback Method
cpg	1345.19	J/molxK	1131.32	Joback Method
dvisc	0.0004693	Paxs	496.79	Joback Method

dvisc	0.0001943	Paxs	567.76	Joback Method
dvisc	0.0000979	Paxs	638.74	Joback Method
dvisc	0.0000565	Paxs	709.71	Joback Method
dvisc	0.0000361	Paxs	780.69	Joback Method
dvisc	0.0000248	Paxs	851.66	Joback Method
dvisc	0.0000181	Paxs	922.64	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=U358441&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U358441&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>cp<sub>g</sub>:</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>log<sub>10</sub>ws:</b>	Log <sub>10</sub> of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>m<sub>c</sub>vol:</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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