

# Glutaric acid, 1-naphthyl pentyl ester

<b>Inchi:</b>	InChI=1S/C20H24O4/c1-2-3-6-15-23-19(21)13-8-14-20(22)24-18-12-7-10-16-9-4-5-11-17
<b>InchiKey:</b>	BGGPRMSRSYDTTJ-UHFFFAOYSA-N
<b>Formula:</b>	C20H24O4
<b>SMILES:</b>	CCCCCOC(=O)CCCC(=O)Oc1cccc2ccccc12
<b>Mol. weight [g/mol]:</b>	328.40

## Physical Properties

Property code	Value	Unit	Source
gf	-140.89	kJ/mol	Joback Method
hf	-529.60	kJ/mol	Joback Method
hfus	43.80	kJ/mol	Joback Method
hvap	83.00	kJ/mol	Joback Method
log10ws	-5.80		Crippen Method
logp	4.649		Crippen Method
mcvol	264.320	ml/mol	McGowan Method
pc	1619.37	kPa	Joback Method
rinqol	2699.00		NIST Webbook
tb	860.22	K	Joback Method
tc	1074.09	K	Joback Method
tf	531.12	K	Joback Method
vc	1.018	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	802.86	J/molxK	860.22	Joback Method
cpg	817.37	J/molxK	895.87	Joback Method
cpg	830.81	J/molxK	931.51	Joback Method
cpg	843.24	J/molxK	967.16	Joback Method
cpg	854.70	J/molxK	1002.80	Joback Method
cpg	865.25	J/molxK	1038.45	Joback Method
cpg	874.92	J/molxK	1074.09	Joback Method
dvisc	0.0007126	Paxs	531.12	Joback Method
dvisc	0.0004495	Paxs	585.97	Joback Method

dvisc	0.0003068	Paxs	640.82	Joback Method
dvisc	0.0002224	Paxs	695.67	Joback Method
dvisc	0.0001690	Paxs	750.52	Joback Method
dvisc	0.0001333	Paxs	805.37	Joback Method
dvisc	0.0001084	Paxs	860.22	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U358766&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U358766&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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