

# Glutaric acid, 4-biphenyl octyl ester

<b>Inchi:</b>	InChI=1S/C25H32O4/c1-2-3-4-5-6-10-20-28-24(26)14-11-15-25(27)29-23-18-16-22(17-1
<b>InchiKey:</b>	RXHRLQNBHDWBEU-UHFFFAOYSA-N
<b>Formula:</b>	C25H32O4
<b>SMILES:</b>	CCCCCCCCOC(=O)CCCC(=O)Oc1ccc(-c2ccccc2)cc1
<b>Mol. weight [g/mol]:</b>	396.52

## Physical Properties

Property code	Value	Unit	Source
gf	-93.03	kJ/mol	Joback Method
hf	-587.34	kJ/mol	Joback Method
hfus	53.77	kJ/mol	Joback Method
hvap	94.77	kJ/mol	Joback Method
log10ws	-7.86		Crippen Method
logp	6.333		Crippen Method
mcvol	330.470	ml/mol	McGowan Method
pc	1206.47	kPa	Joback Method
rinpola	3234.00		NIST Webbook
tb	982.32	K	Joback Method
tc	1206.80	K	Joback Method
tf	581.19	K	Joback Method
vc	1.268	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1077.01	J/molxK	982.32	Joback Method
cpg	1091.53	J/molxK	1019.73	Joback Method
cpg	1104.62	J/molxK	1057.15	Joback Method
cpg	1116.35	J/molxK	1094.56	Joback Method
cpg	1126.79	J/molxK	1131.97	Joback Method
cpg	1135.97	J/molxK	1169.39	Joback Method
cpg	1143.97	J/molxK	1206.80	Joback Method
dvisc	0.0003024	Paxs	581.19	Joback Method
dvisc	0.0001649	Paxs	648.05	Joback Method

dvisc	0.0001007	Paxs	714.90	Joback Method
dvisc	0.0000669	Paxs	781.75	Joback Method
dvisc	0.0000474	Paxs	848.61	Joback Method
dvisc	0.0000354	Paxs	915.46	Joback Method
dvisc	0.0000274	Paxs	982.32	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=U360742&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U360742&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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