

# Phthalic acid, decyl 3-methoxybenzyl ester

**Inchi:** InChI=1S/C26H34O5/c1-3-4-5-6-7-8-9-12-18-30-25(27)23-16-10-11-17-24(23)26(28)31-2  
**InchiKey:** XYLYGHIEBBLJGJ-UHFFFAOYSA-N  
**Formula:** C26H34O5  
**SMILES:** CCCCCCCCCOC(=O)c1ccccc1C(=O)OCc1ccc(OC)c1  
**Mol. weight [g/mol]:** 426.55

## Physical Properties

Property code	Value	Unit	Source
gf	-199.24	kJ/mol	Joback Method
hf	-751.67	kJ/mol	Joback Method
hfus	57.16	kJ/mol	Joback Method
hvap	100.07	kJ/mol	Joback Method
log10ws	-7.95		Crippen Method
logp	6.350		Crippen Method
mcvol	350.430	ml/mol	McGowan Method
pc	1105.94	kPa	Joback Method
rinpol	3205.00		NIST Webbook
rinpol	3205.00		NIST Webbook
tb	1032.60	K	Joback Method
tc	1264.59	K	Joback Method
tf	627.21	K	Joback Method
vc	1.341	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1163.68	J/molxK	1032.60	Joback Method
cpg	1213.47	J/molxK	1225.93	Joback Method
cpg	1206.78	J/molxK	1187.26	Joback Method
cpg	1198.49	J/molxK	1148.60	Joback Method
cpg	1188.57	J/molxK	1109.93	Joback Method
cpg	1176.98	J/molxK	1071.27	Joback Method
cpg	1218.62	J/molxK	1264.59	Joback Method
dvisc	0.0000179	Paxs	1032.60	Joback Method

dvisc	0.0000228	Paxs	965.03	Joback Method
dvisc	0.0000301	Paxs	897.47	Joback Method
dvisc	0.0000417	Paxs	829.90	Joback Method
dvisc	0.0000612	Paxs	762.34	Joback Method
dvisc	0.0000966	Paxs	694.77	Joback Method
dvisc	0.0001683	Paxs	627.21	Joback Method

## Sources

<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=U377983&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U377983&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>
<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>

## 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>cvol</sub>:</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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