

# Diethylmalonic acid, pentyl 3-phenoxybenzyl ester

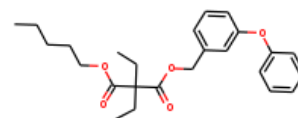
**InChI:** InChI=1S/C25H32O5/c1-4-7-11-17-28-23(26)25(5-2,6-3)24(27)29-19-20-13-12-16-22(18-20)30-21-14-9-8-10-15-21/h8-10,12-16,18H,4-7,11,17,19H2,1-3H3

**InChI Key:** WGQMJCWVCDVGSC-UHFFFAOYSA-N

**Formula:** C<sub>25</sub>H<sub>32</sub>O<sub>5</sub>

**SMILES:** CCCCCOC(=O)C(CC)(CC)C(=O)OCc1ccc(Oc2ccccc2)c1

**Molecular Weight:** 412.52



## Physical Properties

Property	Value	Unit	Source
$\Delta_f G^\circ$	-195.19	kJ/mol	Joback Method
$\Delta_f H^\circ_{\text{gas}}$	-728.31	kJ/mol	Joback Method
$\Delta_{\text{fus}} H^\circ$	47.55	kJ/mol	Joback Method
$\Delta_{\text{vap}} H^\circ$	95.88	kJ/mol	Joback Method
$\log P_{\text{oct/wat}}$	6.06		Crippen Method
$P_c$	1208.15	kPa	Joback Method
$T_{\text{boil}}$	1001.51	K	Joback Method
$T_c$	1231.22	K	Joback Method
$T_{\text{fus}}$	605.84	K	Joback Method
$V_c$	1.27	m <sup>3</sup> /kg-mol	Joback Method

## Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,\text{gas}}$	1104.59	J/mol×K	1001.51	Joback Method
$\eta$	0.00	Paxs	1001.51	Joback Method

## Sources

**Joback Method:** [https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_method)

**NIST Webbook:** [http://webbook.nist.gov/cgi/inchi/InChI=1S/C25H32O5/c1-4-7-11-17-28-23\(26\)25\(5-2,6-3\)24\(27\)29-19-20-13-12-16-22\(18-20\)30-21-14-9-8-10-15-21/h8-10,12-16,18H,4-7,11,17,19H2,1-3H3](http://webbook.nist.gov/cgi/inchi/InChI=1S/C25H32O5/c1-4-7-11-17-28-23(26)25(5-2,6-3)24(27)29-19-20-13-12-16-22(18-20)30-21-14-9-8-10-15-21/h8-10,12-16,18H,4-7,11,17,19H2,1-3H3)

**Crippen Method:** <http://pubs.acs.org/doi/abs/10.1021/ci990307l>

## Legend

$C_{p,gas}$ : Ideal gas heat capacity (J/molxK).

$\eta$ : Dynamic viscosity (Pa $\times$ s).

$\Delta_f G^\circ$ : Standard Gibbs free energy of formation (kJ/mol).

$\Delta_f H^\circ_{gas}$ : Enthalpy of formation at standard conditions (kJ/mol).

$\Delta_{fus} H^\circ$ : Enthalpy of fusion at standard conditions (kJ/mol).

$\Delta_{vap} H^\circ$ : Enthalpy of vaporization at standard conditions (kJ/mol).

$logP_{oct/wat}$ : Octanol/Water partition coefficient .

$P_c$ : Critical Pressure (kPa).

$T_{boil}$ : Normal Boiling Point Temperature (K).

$T_c$ : Critical Temperature (K).

$T_{fus}$ : Normal melting (fusion) point (K).

$V_c$ : Critical Volume (m<sup>3</sup>/kg-mol).

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