

## (Z)-6-Dodecene-7-lactone

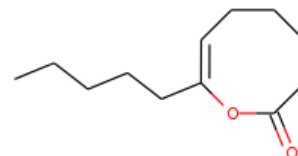
**InChI:** InChI=1S/C12H20O2/c1-2-3-5-8-11-9-6-4-7-10-12(13)14-11/h9H,2-8,10H2,1H3/b11-9-

**InChI Key:** KBMKBYARCSTRK-LUAWRHEFSA-N

**Formula:** C<sub>12</sub>H<sub>20</sub>O<sub>2</sub>

**SMILES:** CCCCCC1=CCCCC(=O)O1

**Molecular Weight:** 196.29



### Physical Properties

Property	Value	Unit	Source
$\Delta_f G^\circ$	-130.26	kJ/mol	Joback Method
$\Delta_f H^\circ_{\text{gas}}$	-452.06	kJ/mol	Joback Method
$\Delta_{\text{fus}} H^\circ$	21.72	kJ/mol	Joback Method
$\Delta_{\text{vap}} H^\circ$	53.10	kJ/mol	Joback Method
$\log P_{\text{oct/wat}}$	3.57		Crippen Method
$P_c$	2414.74	kPa	Joback Method
$T_{\text{boil}}$	605.63	K	Joback Method
$T_c$	827.95	K	Joback Method
$T_{\text{fus}}$	337.65	K	Joback Method
$V_c$	0.64	m <sup>3</sup> /kg-mol	Joback Method

### Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,\text{gas}}$	453.29	J/mol×K	605.63	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/C12H20O2/c1-2-3-5-8-11-9-6-4-7-10-12\(13\)14-11/h9H,2-8,10H2,1H3/b11-9-](http://webbook.nist.gov/cgi/inchi/InChI=1S/C12H20O2/c1-2-3-5-8-11-9-6-4-7-10-12(13)14-11/h9H,2-8,10H2,1H3/b11-9-)

**Crippen Method:** <http://pubs.acs.org/doi/abs/10.1021/ci9903071>

## Legend

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

$\Delta_f G^\circ$ : 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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