

(Z)-6-Dodecene-7-lactone

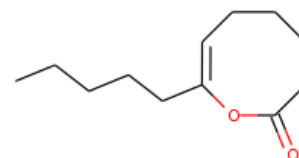
InChI: InChI=1S/C12H20O2/c1-2-3-5-8-11-9-6-4-7-10-12(13)14-11/h9H,2-8,10H2,1H3/b11-9-

InChI Key: KBMKBYARCSTRK-LUAWRHEFSA-N

Formula: C₁₂H₂₀O₂

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
$\log P_{\text{oct/wat}}$	3.568		Crippen Method
P_c	2414.74	kPa	Joback Method
T_{boil}	605.63	K	Joback Method
T_c	827.95	K	Joback Method
T_{fus}	337.65	K	Joback Method
V_c	0.639	m ³ /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

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).

$\log P_{oct/wat}$: 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 (m³/kg-mol).

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