

3,7,7-Trimethylbicyclo[4.1.0]hept-3-ene-2,5-dione

InChI:

InChI=1S/C10H12O2/c1-5-4-6(11)7-8(9(5)12)10(7,2)3/h4,7-8H,1-3H3

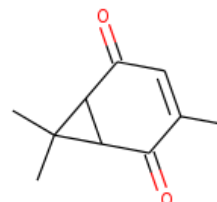
InChI Key: BBRJZZUFDMNIY-UHFFFAOYSA-N

Formula: C₁₀H₁₂O₂

SMILES: CC1=CC(=O)C2C(C1=O)C2(C)C

Molecular Weight: 164.20

CAS: 6617-34-1



Physical Properties

Property	Value	Unit	Source
$\Delta_f G^\circ$	-95.33	kJ/mol	Joback Method
$\Delta_f H^\circ_{\text{gas}}$	-344.48	kJ/mol	Joback Method
$\Delta_{\text{fus}} H^\circ$	10.45	kJ/mol	Joback Method
$\Delta_{\text{vap}} H^\circ$	45.84	kJ/mol	Joback Method
$\log P_{\text{oct/wat}}$	1.36		Crippen Method
P_c	3121.00	kPa	Joback Method
T_{boil}	581.30	K	Joback Method
T_c	822.92	K	Joback Method
T_{fus}	404.20	K	Joback Method
V_c	0.50	m ³ /kg-mol	Joback Method

Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,\text{gas}}$	335.42	J/mol×K	581.3	Joback Method

Sources

Joback Method: https://en.wikipedia.org/wiki/Joback_method

NIST Webbook:

[http://webbook.nist.gov/cgi/inchi/InChI=1S/C10H12O2/c1-5-4-6\(11\)7-8\(9\(5\)12\)10\(7,2\)3/h4,7-8H,1-3H3](http://webbook.nist.gov/cgi/inchi/InChI=1S/C10H12O2/c1-5-4-6(11)7-8(9(5)12)10(7,2)3/h4,7-8H,1-3H3)

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 (m³/kg-mol).

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