

2-hydroxy-(E)-4-decen-3-one

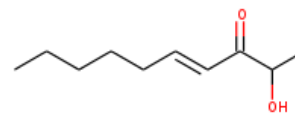
InChI: InChI=1S/C10H18O2/c1-3-4-5-6-7-8-10(12)9(2)11/h7-9,11H,3-6H2,1-2H3/b8-7+

InChI Key: QGMOZIDHLFOEDQ-BQYQJAHWSA-N

Formula: C10H18O2

SMILES: CCCCCC=CC(=O)C(C)O

Molecular Weight: 170.25



Physical Properties

Property	Value	Unit	Source
$\Delta_f G^\circ$	-154.64	kJ/mol	Joback Method
$\Delta_f H^\circ_{\text{gas}}$	-402.60	kJ/mol	Joback Method
$\Delta_{\text{fus}} H^\circ$	24.02	kJ/mol	Joback Method
$\Delta_{\text{vap}} H^\circ$	60.85	kJ/mol	Joback Method
$\log P_{\text{oct/wat}}$	2.073		Crippen Method
P_c	2595.13	kPa	Joback Method
T_{boil}	577.97	K	Joback Method
T_c	754.09	K	Joback Method
T_{fus}	293.13	K	Joback Method
V_c	0.595	m ³ /kg-mol	Joback Method

Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,\text{gas}}$	383.58	J/mol×K	577.97	Joback Method
η	0.0000818	Paxs	577.97	Joback Method

Sources

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

NIST Webbook: [http://webbook.nist.gov/cgi/inchi/InChI=1S/C10H18O2/c1-3-4-5-6-7-8-10\(12\)9\(2\)11/h7-9,11H,3-6H2,1-2H3/b8-7+](http://webbook.nist.gov/cgi/inchi/InChI=1S/C10H18O2/c1-3-4-5-6-7-8-10(12)9(2)11/h7-9,11H,3-6H2,1-2H3/b8-7+)

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

Legend

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

η : 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 (m³/kg-mol).

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