

Propanoic acid, 3-chloro-, methyl ester

Other names: Methyl 3-chloropropionate; Propionic acid, 3-chloro-, methyl ester; USAF do-7.

InChI: InChI=1S/C4H7ClO2/c1-7-4(6)2-3-5/h2-3H2,1H3

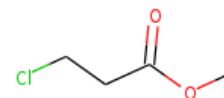
InChI Key: GZGJIACHBCQSPC-UHFFFAOYSA-N

Formula: C4H7ClO2

SMILES: COC(=O)CCCl

Molecular Weight: 122.55

CAS: 6001-87-2



Physical Properties

Property	Value	Unit	Source
$\Delta_c H^\circ_{\text{liquid}}$	-2098.00	kJ/mol	NIST Webbook
$\Delta_f G^\circ$	-263.05	kJ/mol	Joback Method
$\Delta_f H^\circ_{\text{gas}}$	-386.43	kJ/mol	Joback Method
$\Delta_{\text{fus}} H^\circ$	13.10	kJ/mol	Joback Method
$\Delta_{\text{vap}} H^\circ$	38.04	kJ/mol	Joback Method
$\log P_{\text{oct/wat}}$	0.79		Crippen Method
P_c	3940.66	kPa	Joback Method
T_{boil}	429.20	K	NIST Webbook
T_c	592.13	K	Joback Method
T_{fus}	236.92	K	Joback Method
V_c	0.33	m ³ /kg-mol	Joback Method

Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,\text{gas}}$	151.10	J/molxK	404.64	Joback Method
η	0.00	Paxs	404.64	Joback Method

Sources

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

NIST Webbook: [http://webbook.nist.gov/cgi/inchi/InChI=1S/C4H7ClO2/c1-7-4\(6\)2-3-5/h2-3H2,1H3](http://webbook.nist.gov/cgi/inchi/InChI=1S/C4H7ClO2/c1-7-4(6)2-3-5/h2-3H2,1H3)

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

Legend

$\Delta_c H^\circ_{\text{liquid}}$: Standard liquid enthalpy of combustion (kJ/mol).

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

η : Dynamic viscosity (Pa \times s).

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

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

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

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

$\log P_{\text{oct/wat}}$: 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).

Latest version available from:

<https://www.cheméo.com/cid/10-119-8/Propanoic%20acid%2C%203-chloro-%2C%20methyl%20ester>

Generated by Cheméo on Sat, 25 May 2019 18:09:12 +0000.

Cheméo (<https://www.cheméo.com>) is the biggest free database of chemical and physical data for the process industry.