

# Propionic acid, 2,2-dichloro-3,3,3-trifluoro-, n-butyl ester

## InChI:

InChI=1S/C7H9Cl2F3O2/c1-2-3-4-14-5(13)6(8,9)7(10,11)12/h2-4H2,1H3

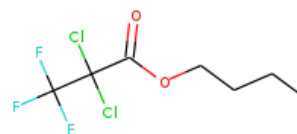
InChI Key: UEOPJKJKJBWUIQ-UHFFFAOYSA-N

Formula: C7H9Cl2F3O2

SMILES: CCCOC(=O)C(Cl)(Cl)C(F)(F)F

Molecular Weight: 253.05

CAS: 309-23-9



## Physical Properties

Property	Value	Unit	Source
$\Delta_f G^\circ$	-828.47	kJ/mol	Joback Method
$\Delta_f H^\circ_{\text{gas}}$	-1069.92	kJ/mol	Joback Method
$\Delta_{\text{fus}} H^\circ$	19.48	kJ/mol	Joback Method
$\Delta_{\text{vap}} H^\circ$	44.06	kJ/mol	Joback Method
$\log P_{\text{oct/wat}}$	3.07		Crippen Method
$P_c$	2462.92	kPa	Joback Method
$T_{\text{boil}}$	502.06	K	Joback Method
$T_c$	684.78	K	Joback Method
$T_{\text{fus}}$	307.26	K	Joback Method
$V_c$	0.58	m <sup>3</sup> /kg-mol	Joback Method

## Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,\text{gas}}$	322.47	J/mol×K	502.06	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/C7H9Cl2F3O2/c1-2-3-4-14-5\(13\)6\(8,9\)7\(10,11\)12/h2-4H2,1H3](http://webbook.nist.gov/cgi/inchi/InChI=1S/C7H9Cl2F3O2/c1-2-3-4-14-5(13)6(8,9)7(10,11)12/h2-4H2,1H3)

**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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