

Phosphonic acid, diethyl ester

Other names: Diethoxyphosphine oxide; Diethyl acid phosphite; Diethyl hydrogen phosphite; Diethyl phosphonate; Ethyl phosphonate ((EtO)₂HPO); Hydrogen diethyl phosphite; NSC 2665; O,O-Diethyl phosphonate; OPH(OC₂H₅)₂; Phosphonic acid, diethyl ester; Phosphorous acid, diethyl ester.

InChI: InChI=1S/C4H11O3P/c1-3-6-8(5)7-4-2/h8H,3-4H2,1-2H3

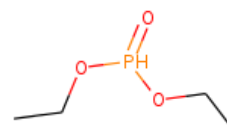
InChI Key: MJUJXFBTEFXVKU-UHFFFAOYSA-N

Formula: C₄H₁₁O₃P

SMILES: CCO[PH](=O)OCC

Molecular Weight: 138.10

CAS: 762-04-9



Physical Properties

Property	Value	Unit	Source
$\Delta_{\text{vap}} H^\circ$	49.30	kJ/mol	NIST Webbook
IE	10.31	eV	NIST Webbook
IE	10.31	eV	NIST Webbook
$\log P_{\text{oct/wat}}$	1.45		Crippen Method

Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$\Delta_{\text{vap}} H$	38.10	kJ/mol	404.5	NIST Webbook

Sources

NIST Webbook:

[http://webbook.nist.gov/cgi/inchi/InChI=1S/C4H11O3P/c1-3-6-8\(5\)7-4-2/h8H,3-4H2,1-2H3](http://webbook.nist.gov/cgi/inchi/InChI=1S/C4H11O3P/c1-3-6-8(5)7-4-2/h8H,3-4H2,1-2H3)

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

Legend

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

$\Delta_{\text{vap}}H$: Enthalpy of vaporization at a given temperature (kJ/mol).

IE: Ionization energy (eV).

logP_{oct/wat}: Octanol/Water partition coefficient .

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