



>>Entry Name: **Didecyl phosphate**, 9CI

Synonym(s): Didecyl hydrogen phosphate. Didecyl phosphoric acid

CAS Registry Number: 7795-87-1

$[\text{H}_3\text{C}(\text{CH}_2)_9\text{O}]_2\text{P}(\text{O})\text{OH}$

Molecular Formula: $\text{C}_{20}\text{H}_{43}\text{O}_4\text{P}$

Molecular Weight: 378.531

Accurate Mass: 378.289897

Percentage Composition: C 63.46%; H 11.45%; O 16.91%; P 8.18%

Use/Importance: Extractant for Hf

Physical Description: Solid

Melting Point: Mp 37-39°. Mp 50-51°

>>Derivative: Me_4N salt

Physical Description: Solid

Melting Point: Mp 212°

>>Derivative: Chloride

Synonym(s): Didecyl phosphorochloridate. Didecyl phosphoryl chloride. Didecyl chlorophosphate

Molecular Formula: $\text{C}_{20}\text{H}_{42}\text{ClO}_3\text{P}$

Molecular Weight: 396.976

Accurate Mass: 396.256009

Percentage Composition: C 60.51%; H 10.66%; Cl 8.93%; O 12.09%; P 7.80%

Physical Description: Oil

Refractive Index: n_D^{25} 1.4552

References:

Chabrier, P. *et al.*, *C. R. Hebd. Seances Acad. Sci.*, 1957, **244**, 2730, (*synth*)

Petrov, K.A. *et al.*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 1596), 1961, **31**, 1709, (*synth*)

Grosse-Ruyken, H. *et al.*, *J. Prakt. Chem.*, 1962, **18**, 287, (*synth, chloride*)

Bliznyuk, N.K. *et al.*, *Zh. Obshch. Khim.*, (*Engl. transl.* p. 1061), 1967, **37**, 1119, (*synth*)