

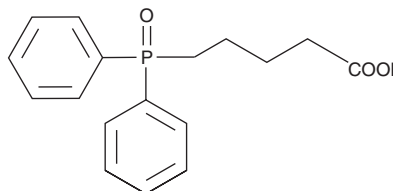
# PRODUCT INFORMATION



## 5-(Diphenylphosphoryl)pentanoic Acid

Item No. 10011337

**CAS Registry No.:** 71140-70-0  
**Formal Name:** 5-(diphenylphosphoryl)-pentanoic acid  
**Synonyms:** 4-Carboxybutyldiphenylphosphine Oxide, DPP  
**MF:** C<sub>17</sub>H<sub>19</sub>O<sub>3</sub>P  
**FW:** 302.3  
**Purity:** ≥95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

5-(Diphenylphosphoryl)pentanoic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the 5-(diphenylphosphoryl)pentanoic acid in the solvent of choice, which should be purged with an inert gas. 5-(Diphenylphosphoryl)pentanoic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 5-(diphenylphosphoryl)pentanoic acid in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

5-(Diphenylphosphoryl)pentanoic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 5-(diphenylphosphoryl)pentanoic acid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 5-(Diphenylphosphoryl)pentanoic acid has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

The Wittig reaction is a frequently used method for olefin synthesis involving a phosphorane ylide and an aldehyde or ketone. DPP is a common by-product of this reaction. DPP can be used as a standard in analyzing products of synthetic routes that utilize the Wittig reaction.

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM