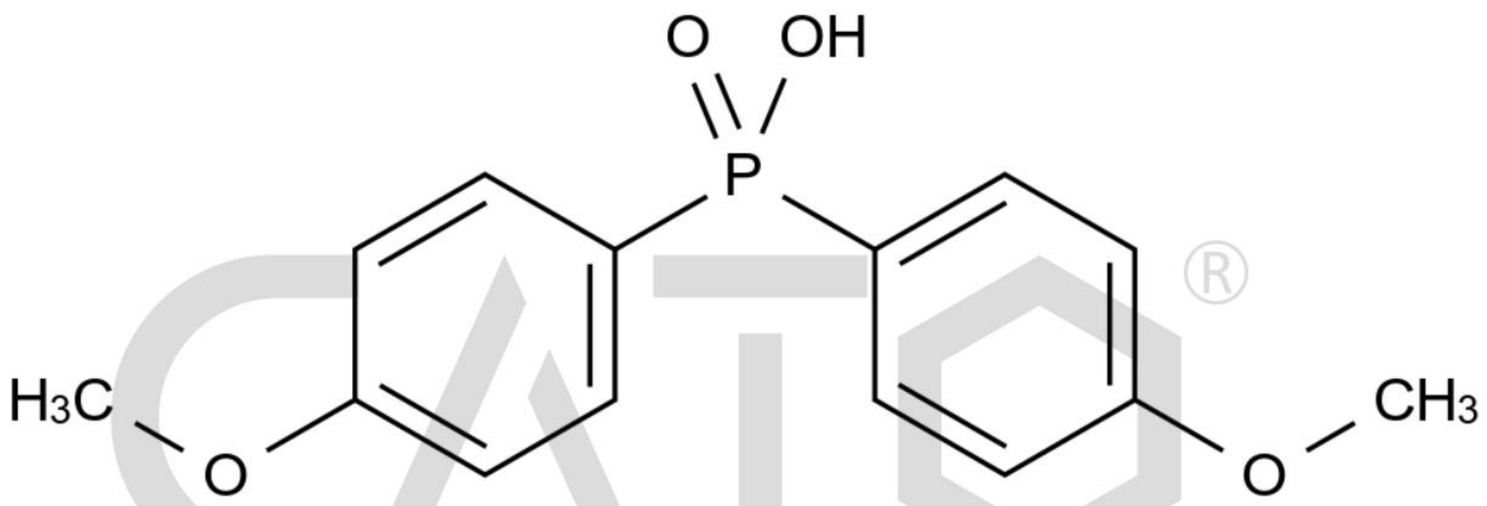
Certificate of Analysis

Reference Material & Standard

Product Name:	Bis(4-methoxyphenyl)phosphinic acid	**Catalogue Number:**	C1794528
Synonyms:	N/A	**Lot Number:**	0613-RG-0107
CAS Number:	20434-05-3	**Expiry Date:**	Jun 16, 2029
Molecular Formula:	C14H15O4P	**Storage:**	Room Temp Protected from light and Sealed
Molecular Weight:	278.24	**Warning:**	

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	97.681%
Loss On Drying	TGA	0.1152%
Assay		97.6%
Uncertainty		±0.5%

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Comment:

1. The calculation of the 100% method follows the formula (calculated on the non-dried basis):
*Assay (%) = (100%-Loss On Drying) * Purity HPLC (%) /100%*
Loss On Drying is considered as absolute effect, HPLC purity is considered as relative effect.
2. The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

Prepared by: Alice Date: Jun 17, 2025

Reviewed by: Lisa Date: Jun 17, 2025

Approved by General Manager: David Date: Jun 17, 2025

CATO Research Chemicals Inc.