



## CERTIFICATE OF ANALYSIS

20 Martin Ross Avenue, North York, ON, M3J 2K8, CANADA  
Tel: (416) 665-9696, Fax: (416) 665-4439  
Email: orders.trc@lgcgroup.com Website: www.trc-canada.com

### 1. Identification

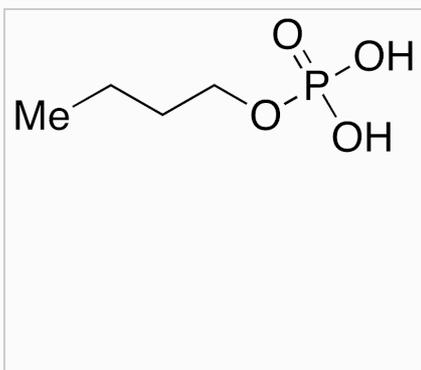
**Catalogue Number:** M525050

**CAS Number:** 1623-15-0

**Product:** Monobutyl Phosphate

**Synonym:** Phosphoric Acid Monobutyl Ester; Butyl Diacid Phosphate; Butyl Dibasic Acid Phosphate; Butyl Dihydrogen Phosphate; Dihydrogen Monobutyl Phosphate; JAMP 4P; MP 4; Monobutyl Dihydrogen Phosphate; Monobutyl Phosphate; NSC 41911;

**Structure:**



**Molecular Formula:**

C<sub>4</sub>H<sub>11</sub>O<sub>4</sub>P

**Molecular weight:**

154.1

**Source of Product:**

Synthetic

**Solubility:**

DMSO (Slightly), Ethyl Acetate (Slightly), Methanol (Slightly)

**Lot Number:** 9-ABK-197-3

**Purity:** 98%

**Shipping Condition:** This Product Is Stable To Be Shipped At Room Temperature

**Storage Condition:** 4°C

### 2. Warning

**Warning 1:**

**Warning 2:**

**Warning 3:**

### 3. Analytical Information

Tests:	Specifications:	Results:
Appearance	Colourless to Light Brown Oil	Pale Brown to Light Brown Oil
NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 28.95, %H: 7.48
MS	Conforms to Structure	Conforms
HPLC Purity	Report Result	99.15% (ELSD)
P NMR	Conforms to Structure	Conforms

**Additional Information:**

N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

### 4. Signatures

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
Henry Tieu	Toni Rantanen	Chanell Chu	4/19/2023	4/17/2027