



## 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

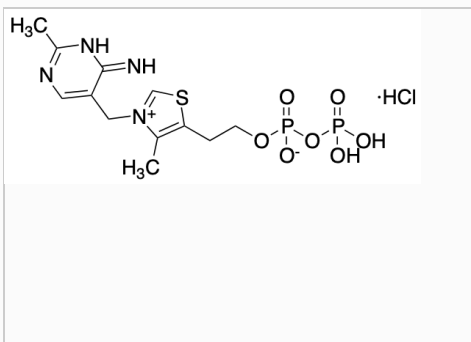
**Catalogue Number:** T344268

**CAS Number:** 154-87-0

**Product:** Thiamine Pyrophosphate

**Synonym:**

**Structure:**



**Molecular Formula:**

$C_{12}H_{19}N_4O_7P_2S \cdot Cl$

**Molecular weight:**

460.77

**Source of Product:**

N/A

**Solubility:**

Water (Slightly)

**Lot Number:** 2-HBS-170-1

**Purity:** 97%

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

**Storage Condition:** -20°C

### 2. Warning

**Warning 1:**

**Warning 2:**

**Warning 3:**

### 3. Analytical Information

| Tests:             | Specifications:          | Results:                       |
|--------------------|--------------------------|--------------------------------|
| Appearance         | White to Off-White Solid | White to Off-White Solid       |
| NMR                | Conforms to Structure    | Conforms                       |
| P NMR              | Conforms to Structure    | Conforms                       |
| Elemental Analysis | Conforms                 | %C: 31.17, %H: 4.26, %N: 11.84 |
| HPLC Purity        | Report Result            | 100.00% (245 nm)               |
| MS                 | 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  $\pm 2\%$ . 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 |
|-------------|---------------|--------------------|------------|-------------|
| Nicole Yip  | Toni Rantanen | Rami Dhanoa        | 12/22/2023 | 12/20/2027  |