

## Certificate of Analysis

|                 |                           |                           |              |
|-----------------|---------------------------|---------------------------|--------------|
| <b>Product</b>  | ortho-Phosphoric Acid 85% | <b>Batch No.</b>          | : 21 04 0290 |
| <b>Grade</b>    | AR.                       | <b>Manufacturing date</b> | : 30/04/2021 |
| <b>Code No.</b> | AR1152                    | <b>Best before</b>        | : 04/2023    |

| Items | Descriptions                             | Specifications | Test Results |
|-------|--|----------------|--------------|
| 1     | Assay (by acidimetry)                    | 85 - 86%       | 85.4% (w/w)  |
| 2     | Appearance of solution                   | Clear          | Clear        |
| 3     | Color (APHA)                             | 10 max.        | < 10         |
| 4     | Identity                                 | Passes test    | Passes test  |
| 5     | Insoluble matter                         | 10 ppm max.    | < 10 ppm     |
| 6     | Reducing substances                      | Passes test    | Passes test  |
| 7     | Volatile acids (as CH <sub>3</sub> COOH) | 10 ppm max.    | < 10 ppm     |
| 8     | Chloride (Cl)                            | 2 ppm max.     | < 2 ppm      |
| 9     | Nitrate (NO <sub>3</sub> )               | 3 ppm max.     | < 3 ppm      |
| 10    | Sulfate (SO <sub>4</sub> )               | 20 ppm max.    | < 20 ppm     |
| 11    | Heavy metals (as Pb)                     | 10 ppm max.    | < 10 ppm     |
| 12    | Antimony (Sb)                            | 10 ppm max.    | < 10 ppm     |
| 13    | Arsenic (As)                             | 0.5 ppm max.   | < 0.5 ppm    |
| 14    | Cadmium (Cd)                             | 0.5 ppm max.   | < 0.5 ppm    |
| 15    | Calcium (Ca)                             | 20 ppm max.    | < 20 ppm     |
| 16    | Cobalt (Co)                              | 0.5 ppm max.   | < 0.5 ppm    |
| 17    | Copper (Cu)                              | 0.5 ppm max.   | < 0.5 ppm    |
| 18    | Iron (Fe)                                | 10 ppm max.    | < 10 ppm     |
| 19    | Lead (Pb)                                | 0.5 ppm max.   | < 0.5 ppm    |
| 20    | Magnesium (Mg)                           | 5 ppm max.     | < 5 ppm      |
| 21    | Manganese (Mn)                           | 0.5 ppm max.   | < 0.5 ppm    |
| 22    | Nickel (Ni)                              | 1 ppm max.     | < 1 ppm      |
| 23    | Potassium (K)                            | 5 ppm max.     | < 5 ppm      |
| 24    | Sodium (Na)                              | 50 ppm max.    | < 50 ppm     |
| 25    | Zinc (Zn)                                | 2 ppm max.     | < 2 ppm      |

Meet A.C.S. Specifications.

This is to certify the above batch has been tested and complies with this specification.

Ladaphan

Chemist

Achan

Technical Manager