

## CERTIFICATE OF ANALYSIS

### Calcium Nitrate Tetrahydrate — Industrial Grade

|                           |                                                                                 |                            |                  |
|---------------------------|---------------------------------------------------------------------------------|----------------------------|------------------|
| <b>Product Name:</b>      | Calcium Nitrate Tetrahydrate                                                    | <b>Grade:</b>              | Industrial Grade |
| <b>CAS No.:</b>           | 13477-34-4                                                                      | <b>EINECS EC No.:</b>      | 233-332-1        |
| <b>Molecular Formula:</b> | $\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$                            | <b>Molecular Weight:</b>   | 236.15 g/mol     |
| <b>Batch No.:</b>         | HRSU/CNP/04/42/2025                                                             | <b>Manufacturing Date:</b> | 11/04/2025       |
| <b>Shelf Life:</b>        | 60 months from the date of manufacture, when stored sealed in a cool, dry place | <b>Expiry Date:</b>        | 10/04/2030       |

### Test Results

| Parameter                                                        | Specification                  | Result                       | Method           |
|------------------------------------------------------------------|--------------------------------|------------------------------|------------------|
| Appearance                                                       | Colourless to white crystals   | <b>Conforms</b>              | Visual           |
| Assay (as $\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$ ) | 99 – 103%                      | <b>99.8%</b>                 | Titrimetric      |
| Melting Point                                                    | 42 – 44 °C                     | <b>43.5 °C</b>               | Capillary Tube   |
| pH (5% solution in water, 25 °C)                                 | 5.0 – 7.0                      | <b>5.9</b>                   | pH meter         |
| Insoluble matter in water                                        | Max 0.005%                     | <b>0.003%</b>                | Gravimetric      |
| Nitrite ( $\text{NO}_2$ )                                        | Max 0.001%                     | <b>0.0008%</b>               | Colorimetric     |
| Chloride (Cl)                                                    | Max 0.005%                     | <b>0.002%</b>                | Turbidimetric    |
| Sulphate ( $\text{SO}_4$ )                                       | Max 0.005%                     | <b>0.004%</b>                | Turbidimetric    |
| Barium (Ba)                                                      | Max 0.01%                      | <b>0.005%</b>                | ICP-OES          |
| Iron (Fe)                                                        | Max 0.0005%                    | <b>0.0003%</b>               | ICP-OES          |
| Lead (Pb)                                                        | Max 0.001%                     | <b>0.0007%</b>               | ICP-OES          |
| Magnesium (Mg)                                                   | Max 0.05%                      | <b>0.03%</b>                 | ICP-OES          |
| Potassium (K)                                                    | Max 0.005%                     | <b>0.002%</b>                | Flame Photometry |
| Sodium (Na)                                                      | Max 0.02%                      | <b>0.015%</b>                | Flame Photometry |
| Strontium (Sr)                                                   | Max 0.05%                      | <b>0.02%</b>                 | ICP-OES          |
| Density (typical, informational)                                 | Approx. 1.86 g/cm <sup>3</sup> | <b>1.85 g/cm<sup>3</sup></b> | Hydrometer       |
| Solubility in water (typical, informational)                     | 121 g in 100 g of water        | <b>Conforms</b>              | Visual           |

### Conclusion

All tested parameters conform to specification. **RESULT: PASS — APPROVED FOR RELEASE.**

HRSU Indore Pvt. Ltd.  
Beyond Granules. The Purity of Powder.

Analyst

QC Manager

Authorised Signatory (stamp)

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