

BaseBulk

CERTIFICATE OF ANALYSIS

| | |
|---------------------------|---------------------------------|
| Product Name | Nicotinamide (Food Grade & USP) |
| Batch No | 8202403221 |
| Manufacturing Date | Mar. 22, 2024 |
| Expiry Date | Mar. 21, 2027 |
| Standard | USP 2022 and EP 10.0 |
| Issue Date | Mar. 27, 2024 |

| Analysis Item | Unit | Specification | Test Method | Result |
|------------------------|-------------|--|--------------------------|---------------|
| Appearance | — | White crystalline powder | Visual Inspection | Complies |
| Solubility | — | Freely soluble in water and in anhydrous ethanol, slightly soluble in methylene chloride | Visual Inspection | Complies |
| Identification A | — | Infrared Absorption | Infrared Absorption | Complies |
| Identification B | — | A245/A262 ratio is 0.63–0.67 | Ultraviolet Absorption | 0.66 |
| Identification C | — | Thin-layer Chromatography | TLC | Complies |
| Assay | % | 99.0–101.0 | Potentiometric Titration | 100.2 |
| Melting Range | °C | 128–131 | Melting Point Apparatus | 128.7–129.2 |
| Appearance of Solution | — | Not more intensely coloured than BY7 | Visual Inspection | Complies |
| pH | — | 6.0–7.5 | pH Detectors | 6.97 |

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|----------------------------------|-------|-------------------------------------|-------------------|----------|
| Readily Carbonizable Substances | — | No more color than matching Fluid A | Visual Inspection | Complies |
| Loss On Drying | % | ≤0.5 | Oven Drying | 0.03 |
| Sulfated Ash | % | ≤0.1 | EP 2.4.14 | 0.01 |
| Residue on Ignition | % | ≤0.1 | USP<281> | 0.01 |
| Heavy Metals | ppm | ≤20 | CP2020<0821> | <20 |
| Lead | ppm | ≤0.5 | CP2020<0406> | <0.5 |
| Arsenic | ppm | ≤1 | CP2020<0822> | <1 |
| Mercury | ppm | ≤0.1 | CP2020<2321> | <0.1 |
| Cadmium | ppm | ≤0.5 | CP2020<2321> | <0.5 |
| Aerobic Plate Count | CFU/g | ≤100 | Plate | <100 |
| Moulds and Yeasts | CFU/g | ≤50 | Plate | <50 |
| Coliform | MPN/g | ≤10 | Plate | <10 |
| Related Substances (Unspecified) | % | ≤0.10 | HPLC | 0.034 |
| Related Substances (Total) | % | ≤0.2 | HPLC | 0.036 |
| E. coli (annual test) | MPN/g | Negative | GB 4789.38-2012 I | Negative |
| Salmonella (annual test) | /25g | Negative | GB 4789.4-2016 | Negative |
| Bulk Density (annual test) | g/ml | 0.5–0.6 | CP2020 | Complies |