

## 检测报告 CERTIFICATE OF ANALYSIS

|                         |                                                                                                          |                     |               |
|-------------------------|----------------------------------------------------------------------------------------------------------|---------------------|---------------|
| 产品名称 Product Name:      | 维生素 A 棕榈酸酯 Vitamin A Palmitate powder                                                                    |                     |               |
| CAS No.:                | 79-81-2                                                                                                  | 参考标准 Ref. Standard: | USP/EP        |
| 批号 Batch Number:        | 20251228                                                                                                 | 生产日期 Manuf. Date:   | Dec. 28, 2025 |
| 数量 Quantity:            | 400kg                                                                                                    | 有效期至 Expiry Date:   | Dec. 27, 2027 |
| 储存条件 Storage Condition: | 保存在密闭的容器中，室温可控，远离阳光。<br>Preserve in tight containers at controlled room temperature, away from sunlight. |                     |               |

| 项目 Item                            | 标准 Specification                                                                                               | 结果 Result   | 方法 Methods      |
|------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------|-----------------|
| 含量 Assay                           | ≥500,000 IU/g                                                                                                  | 536,000IU/g | HPLC            |
| 外观 Appearance                      | 淡黄色至亮黄色自由流动的粉末<br>Pale yellow to bright-yellow free-flowing powder                                             | 符合 Conforms | 感官 Organoleptic |
| 鉴别 Identification                  | 主峰的保留时间与参考溶液中的保持时间一致。<br>The retention time of the principal peak conforms to which in the reference solution. | 符合 Conforms | HPLC            |
| 水分散性 Water Dispersibility          | 在 15°C 的冷水中容易分散，形成均匀稳定的乳液<br>Easily dispersed in cold water 15°C to form a homogeneous and stable emulsion     | 符合 Conforms | /               |
| 干燥失重 Loss on Drying                | ≤5.0%                                                                                                          | 2.2%        | /               |
| 粒度 Particle size                   | 100% through 20 mesh<br>85% through 40 mesh<br>≤15% through 100 mesh                                           | 符合 Conforms | USP<786>        |
| <b>重金属 Heavy Metals</b>            | ≤ 10ppm                                                                                                        | 符合 Conforms | USP<231>        |
| 铅 Lead (Pb)                        | ≤ 2.0ppm                                                                                                       | 符合 Conforms | USP<251>        |
| 砷 Arsenic(As)                      | ≤ 1.0ppm                                                                                                       | 符合 Conforms | USP<211>        |
| 镉 Cadmium(Cd)                      | ≤ 1.0ppm                                                                                                       | 符合 Conforms | USP<233>        |
| 汞 Mercury(Hg)                      | ≤ 0.1ppm                                                                                                       | 符合 Conforms | USP<233>        |
| <b>微生物检测 Microbiological Tests</b> |                                                                                                                |             |                 |
| 菌落总数 Total plate count             | ≤ 1000cfu/g                                                                                                    | 符合 Conforms | USP<2021>       |
| 霉菌&酵母 Mold & Yeast                 | ≤ 100cfu/g                                                                                                     | 符合 Conforms | USP<2021>       |
| 肠道菌 Enterobacterial                | ≤ 10cfu/g                                                                                                      | 符合 Conforms | USP<2021>       |

|                                  |                                               |             |           |
|----------------------------------|-----------------------------------------------|-------------|-----------|
| 沙门氏菌 Salmonella                  | 阴性 Negative/25g                               | 阴性 Negative | USP<2022> |
| 大肠杆菌 E.coil                      | 阴性 Negative / 10g                             | 阴性 Negative | USP<2022> |
| 金黄色葡萄球菌<br>Staphylococcus aureus | 阴性 Negative/ 10g                              | 阴性 Negative | USP<2022> |
| 铜绿假单胞菌<br>Pseudomonas aeruginosa | 阴性 Negative / 10g                             | 阴性 Negative | USP<2022> |
| 结论 Conclusion:                   | 符合 USP/EP 标准 Conforms to the USP/EP standard. |             |           |

Tested by: Tiantian Wang

Checked by: Hong Chen

