



浙江上方生物科技有限公司  
ZHEJIANG TOP HYDROCOLLOIDS CO., LTD.

2299 Xingong Road, Economic Development Zone,  
Pinghu 314200, Zhejiang Province, P. R. China  
Tel: +86 573 8598 5533 Fax: +86 573 8598 5522

## Certificate of Analysis

|                  |                                       |                  |                |
|------------------|---------------------------------------|------------------|----------------|
| Product Name     | Food Additive E407A Kappa Carrageenan | Batch Number     | 2022120908S    |
| Code             | Semi-Refined BG-KGel K-01             | Production Date  | Dec.09,2022    |
| Packages         | 240Bags                               | Expiry Date      | Dec.08,2024    |
| Quantity         | 6000KGS                               | Testing Date     | Dec.09,2022    |
| Sales Contract # | B101SOW22110029                       | Purchase Order # | Specification6 |

| Item                                                      | Standard                                                        | Result    |
|-----------------------------------------------------------|-----------------------------------------------------------------|-----------|
| Appearance                                                | Yellowish to yellow flowing powder                              | Qualified |
| Particle Size(%)                                          | 90% min. thru 120 mesh                                          | Qualified |
| Viscosity(1.5%, 75°C, mPa.s)                              | ≥5                                                              | 139       |
| Loss on Drying (%)                                        | ≤10                                                             | 7         |
| Total Ash Content (%)                                     | ≤30                                                             | 24.9      |
| Gel Strength (1.5%w/w, 0.2%KCl, g/cm <sup>2</sup> , 20°C) | ≥600                                                            | 618       |
| PH Level                                                  | 7-10                                                            | 9.8       |
| Acid-Insoluble Ash (%)                                    | ≤1                                                              | Qualified |
| Arsenic content (As, mg/kg)                               | ≤3                                                              | 0.501     |
| Lead content (Pb, mg/kg)                                  | ≤5                                                              | 0.270     |
| Mercury content (Hg, mg/kg)                               | ≤1                                                              | 0.077     |
| Cadmium content (Cd, mg/kg)                               | ≤2                                                              | 0.824     |
| Total Plate Count (CFU/g)                                 | ≤5000                                                           | 2300      |
| Molds and Yeasts (CFU/g)                                  | ≤300                                                            | 100       |
| E. coli                                                   | Negative in 5g                                                  | Qualified |
| Salmonella                                                | Negative in 10g                                                 | Qualified |
| Conclusion                                                | Through Analysis, the quality of this batch number is approved. |           |

Analysis Person

Sheng Tingting

Analysis Confirm

Teng Lidong

Q. C. Supervisor

Lu Fenghui



浙江上方生物科技有限公司  
ZHEJIANG TOP HYDROCOLLOIDS CO., LTD.

2299 Xinggong Road, Economic Development Zone,  
Pinghu 314200, Zhejiang Province, P. R. China  
Tel: +86 573 8598 5533 Fax: +86 573 8598 5522

## Certificate of Analysis

|                  |                                       |                  |                |
|------------------|---------------------------------------|------------------|----------------|
| Product Name     | Food Additive E407A Kappa Carrageenan | Batch Number     | 2022121006S    |
| Code             | Semi-Refined BG-KGel K-01             | Production Date  | Dec.10,2022    |
| Packages         | 240Bags                               | Expiry Date      | Dec.09,2024    |
| Quantity         | 6000KGS                               | Testing Date     | Dec.10,2022    |
| Sales Contract # | B101SOW22110029                       | Purchase Order # | Specification6 |

| Item                                                     | Standard                                                        | Result    |
|----------------------------------------------------------|-----------------------------------------------------------------|-----------|
| Appearance                                               | Yellowish to yellow flowing powder                              | Qualified |
| Particle Size(%)                                         | 90% min. thru 120 mesh                                          | Qualified |
| Viscosity(1.5%,75°C, mPa.s)                              | ≥5                                                              | 74        |
| Loss on Drying (%)                                       | ≤10                                                             | 7.5       |
| Total Ash Content (%)                                    | ≤30                                                             | 24.9      |
| Gel Strength (1.5%w/w,0.2%KCl, g/cm <sup>2</sup> , 20°C) | ≥600                                                            | 608       |
| PH Level                                                 | 7-10                                                            | 9.8       |
| Acid-Insoluble Ash (%)                                   | ≤1                                                              | Qualified |
| Arsenic content (As, mg/kg)                              | ≤3                                                              | 0.502     |
| Lead content (Pb, mg/kg)                                 | ≤5                                                              | 0.316     |
| Mercury content (Hg, mg/kg)                              | ≤1                                                              | 0.068     |
| Cadmium content (Cd, mg/kg)                              | ≤2                                                              | 0.805     |
| Total Plate Count (CFU/g)                                | ≤5000                                                           | 1600      |
| Molds and Yeasts (CFU/g)                                 | ≤300                                                            | 100       |
| E. coli                                                  | Negative in 5g                                                  | Qualified |
| Salmonella                                               | Negative in 10g                                                 | Qualified |
| Conclusion                                               | Through Analysis, the quality of this batch number is approved. |           |

Analysis Person

Sheng Tingting

Analysis Confirm

Feng Lidong

Q. C. Supervisor

Lu Fenghui



浙江上方生物科技有限公司  
ZHEJIANG TOP HYDROCOLLOIDS CO., LTD.

2299 Xingong Road, Economic Development Zone,  
Pinghu 314200, Zhejiang Province, P. R. China  
Tel: +86 573 8598 5533 Fax: +86 573 8598 5522

## Certificate of Analysis

|                  |                                       |                  |                |
|------------------|---------------------------------------|------------------|----------------|
| Product Name     | Food Additive E407A Kappa Carrageenan | Batch Number     | 2022121104S    |
| Code             | Semi-Refined BG-KGel K-01             | Production Date  | Dec.11,2022    |
| Packages         | 240Bags                               | Expiry Date      | Dec.10,2024    |
| Quantity         | 6000KGS                               | Testing Date     | Dec.11,2022    |
| Sales Contract # | B101SOW22110029                       | Purchase Order # | Specification6 |

| Item                                                      | Standard                                                        | Result    |
|-----------------------------------------------------------|-----------------------------------------------------------------|-----------|
| Appearance                                                | Yellowish to yellow flowing powder                              | Qualified |
| Particle Size(%)                                          | 90% min. thru 120 mesh                                          | Qualified |
| Viscosity(1.5%, 75°C, mPa.s)                              | ≥5                                                              | 86        |
| Loss on Drying (%)                                        | ≤10                                                             | 7.4       |
| Total Ash Content (%)                                     | ≤30                                                             | 24.1      |
| Gel Strength (1.5%w/w, 0.2%KCl, g/cm <sup>2</sup> , 20°C) | ≥600                                                            | 633       |
| PH Level                                                  | 7-10                                                            | 9.7       |
| Acid-Insoluble Ash (%)                                    | ≤1                                                              | Qualified |
| Arsenic content (As, mg/kg)                               | ≤3                                                              | 0.600     |
| Lead content (Pb, mg/kg)                                  | ≤5                                                              | 0.222     |
| Mercury content (Hg, mg/kg)                               | ≤1                                                              | 0.035     |
| Cadmium content (Cd, mg/kg)                               | ≤2                                                              | 0.827     |
| Total Plate Count (CFU/g)                                 | ≤5000                                                           | 700       |
| Molds and Yeasts (CFU/g)                                  | ≤300                                                            | 200       |
| E. coli                                                   | Negative in 5g                                                  | Qualified |
| Salmonella                                                | Negative in 10g                                                 | Qualified |
| Conclusion                                                | Through Analysis, the quality of this batch number is approved. |           |

Analysis Person

Sheng Tingting

Analysis Confirm

Feng Lidong

Q. C. Supervisor

Lu Fenghui