



西安天本生物工程有限公司
Xi'an Tianben Bio-Engineering Co., Ltd.

CERTIFICATE OF ANALYSIS

| | | | |
|----------------|-----------------|---------------------|---------------|
| Product Name | Piperine powder | | |
| Batch No. | TBP180925 | Manufacturing Date | Sept 25, 2018 |
| Batch Quantity | 50kg | Date Of Certificate | Sept 28, 2018 |

| Item | Specification | Result |
|-----------------------------------|-------------------------|----------|
| Maker Compounds (Piperine) | $\geq 98.0\%$ | 98.35% |
| Test Method | HPLC | Conforms |
| Extract Solvent | Ethanol & Water | Conforms |
| Organoleptic | | |
| Appearance | Fine Powder | Conforms |
| Color | Light Yellow | Conforms |
| Odor | Characteristic | Conforms |
| Taste | Characteristic | Conforms |
| Physical Characteristics | | |
| Particle Size | Through 80 mesh | Conforms |
| Loss On Drying | $\leq 1.0\%$ | 0.04% |
| Ash Content | $\leq 1.0\%$ | 0.03% |
| Bulk Density | 45-60g/100ml | Conforms |
| Solvent Residue | Eur.Pharm | Conforms |
| Pesticide Residue | Negative | Negative |
| Heavy Metals | | |
| Total Heavy Metals | $\leq 10\text{ppm}$ | Conforms |
| Arsenic | $\leq 2\text{ppm}$ | Conforms |
| Pb | $\leq 2\text{ppm}$ | Conforms |
| Microbiological Tests | | |
| Total Plate Count | $\leq 1000\text{cfu/g}$ | Conforms |
| Total Yeast & Mold | $\leq 100\text{cfu/g}$ | Conforms |
| E.Coli | Negative | Negative |
| Salmonella | Negative | Negative |
| Staphylococcus | Negative | Negative |

| | |
|-------------------|---|
| Conclusion | Conform with Specification. |
| Storage | Store in a cool and dry place, keep away from direct strong and heat. |
| Shelf Life | Two years if sealed and store away from direct sun light. |

Analyst: Jin Ping Zhang

Corrector: Dan Liu

Quality Assurance Officer: Jin Ping Zhang

