



JIAXING HENGJIE BIOPHARMACEUTICAL CO.,LTD

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CERTIFICATE OF ANALYSIS

PRODUCT NAME: Chondroitin Sulfate Sodium USP 41

| | | | |
|---------------------|------------|------------------|------------|
| Origin | Porcine | Report Date | 2/4/2022 |
| Batch No.: | CS20220205 | Quantity: | 1000KG |
| Net Weight: | 25KG/DRUM | Gross weight: | 27.5G/DRUM |
| Manufacturing Date: | 2/7/2022 | Expiration Date: | 2/6/2025 |

| ITEMS | SPECIFICATIONS | TESTING METHOD | RESULTS |
|--|---------------------------|--------------------|------------|
| Appearance | White to Yellowish Powder | Visual | PASS |
| Taste/Aroma | Characteristic | GUSTATION | PASS |
| Identification | Infra-Red Confirmed | USP197K | PASS |
| | Sodium reaction | USP191 | POSITIVE |
| Assay(Odb) | 90%-105.0% | CPC | 92.50% |
| | >90.0% | HPLC | 90.90% |
| Loss On Drying | < 12% | USP731 | 9.93% |
| Protein | <6% | USP | 4.50% |
| Ph (1% H ₂ O Solution) | 5.5-7.5 | USP 791 | 6.10 |
| Chloride | NMT 0.50% | USP 221 | <0.50% |
| Sulfate | NMT 0.24% | USP 221 | <0.24% |
| Specific Rotation | - 20° ~ -30° | USP781S | -22.6° |
| Residue On Ignition (Dry Base) | 20%-30% | USP281 | 25.40% |
| Organic Volatile Residual | NMT 0.5% | USP467 | PASS |
| Clarity (5% H ₂ O Solution) | <0.35 @ 420nm | USP 38 | 0.15 |
| Electrophoretic Purity | NMT 2.0% | USP 726 | PASS |
| Heavy Metals | ≤ 20 PPM | ICP-MS/AOAC 993.14 | < 20 PPM |
| Arsenic | ≤ 2 PPM | ICP-MS/AOAC 993.14 | < 2 PPM |
| Lead | ≤ 1 PPM | ICP-MS/AOAC 993.14 | < 1 PPM |
| Cadmium | ≤ 1 PPM | ICP-MS/AOAC 993.14 | < 1 PPM |
| Mercury | ≤ 1 PPM | ICP-MS/AOAC 993.14 | < 1 PPM |
| Total Plate Count | ≤ 1000 cfu/g | USP2021 | < 10 CFU/G |
| Yeast & Mold | ≤ 100 cfu/g | USP2021 | < 10 CFU/G |
| Salmonella | Negative | USP2022 | Negative |
| E. Coli | Negative | USP2022 | Negative |
| Staphylococcus Aureus | Negative | USP2022 | Negative |
| Particle Size | 100% Through 80 Mesh | In House | PASS |
| Bulk Density | > 0.55 g/cm ³ | In House | 0.60 g/ml |
| Chemist: 刘文明 | | Lab Supervisor: 林彬 | |

Package: Net weight 25kgG/drum. Gross weight 27.5kg/drum
 Storage: Keep in an airtight container under 25C degree, protected from light.
 No-Irradiation, Non-GMO material.
 Conclusion: Product conforms to specification.

