

Certificate of Analysis

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| Product Name: | Fish Chondroitin Sulfate 90% | Test Method: | USP 34 Reference Standard by CPC Titration |
| Batch Number: | 20130602 | Quantity: | 1000KG |
| Manufacture Date: | 02 Jun, 2013 | Report Date: | 02 Jun, 2013 |
| Origin: | Fish Cartilage | Expiry Date: | 01 Jun, 2015 |
| | | Package: | 25kg/drum |

| ITEM | STANDARD | RESULTS |
|-------------------------------|--|--------------|
| Appearance | White to Off-white Free Flowing Powder A: Infrared Absorption | Pass Pass |
| Identification | B: A solution containing 0,5g in 10 ml of water meets the requirements of Sodium | |
| Clarity and Color of Solution | 0,35 Max at 420nm | Pass |
| Chondroitin Sulfate Assay | 90%Min (O.D.B by CPC Titration) | 90.80% |
| Loss on Drying | 10%Max | 9.32% |
| Protein | 6.0%Max | 3.70% |
| Specific Rotation | -12°---- -19° | -17.60° |
| PH | 5.5---7,5 | 6.700 |
| Bulk Density | 0,55g/ml Min | 0,61g/ml |
| Particle Size | 100% through 80 mesh | Pass |
| Residue On Ignition | 20%-----30% | 25.10% |
| Heavy Metals | 10PPM Max | Pass |
| Chloride | 0,50% Max | Pass |
| Sodium | 5.0%----8.0% | 5.80% |
| Sulfate | 0,24% Max | Pass |
| Lead | 0,5PPM Max | Pass |
| Arsenic | 2PPM Max | Pass |
| Residual solvents | Meets the Requirements | Pass |
| Electrophoretic purity | Meets the Requirements | Pass |
| Total Plate Count | 1,000cfu/g Max | Pass |
| Yeast&Mold | 100cfu/g Max | Pass |
| E.Coli | Negative | Negative |
| Salmonella | Negative | Negative |

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| Conclusion: | Conforms to USP34 Requirements |
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