

Shine Star (Hubei) Biological Engineering Co., Ltd.

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CERTIFICATE OF ANALYSIS

| | | | |
|--|--|-------------------|--------------|
| Product Name: | L-Cysteine Hydrochloride Monohydrate | | |
| CAS No.: | 7048-04-6 | | |
| Quantity: | 1000kgs | Manufacture Date: | Dec 19, 2018 |
| Batch No.: | 57184822 | Analysis Date: | Dec 24, 2018 |
| Quality Standard: | EP6 | Expiry Date: | Dec 18, 2019 |
| | | | |
| Test Items | Limit | | Result |
| Identification | conform to EP6 | | conform |
| Appearance | white, crystalline powder or colorless crystals | | conform |
| Appearance of solution | clear and not more intensely colored than reference solution BY6 | | conform |
| Specific optical rotation | +5.5° to +7.0° | | +6.3° |
| Ninhydrin-positive substances | conform to EP6 | | conform |
| Sulphates | ≤300ppm | | <300ppm |
| Ammonium | ≤200ppm | | <200ppm |
| Iron | ≤20ppm | | <20ppm |
| Heavy Metals | ≤10ppm | | <10ppm |
| Loss on drying | 8.0% to 12.0% | | 10.2% |
| Sulphated ash | ≤0.10% | | <0.10% |
| Assay | 98.5% to 101.0% | | 99.8% |
| Conclusion: The products conform to EP6 standard. | | | |
| Reported by: 陈燕 | | Verified by: 郭刚 | |
| Storage: Preserve in well-closed containers and protected from light | | | |