

CERTIFICATE OF ANALYSIS

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|---------------------|------------------------|-------------------------|----------|
| Product Name | Alpha Lipoic Acid | | |
| Cas No | 1077-28-7 | | |
| Standard | USP Dietary Supplement | | |
| Batch Number | 20220822 | Manufacture Date | 20220822 |
| Report Date | 20220822 | Expiry Date | 20240821 |

| Item of Analysis | Specification | Results |
|--------------------------|------------------------------------|----------------|
| Assay | 99%-101% | 99.6% |
| Appearance | Light yellowish crystalline powder | Conforms |
| Odor | Characteristic | Characteristic |
| Taste | Characteristic | Characteristic |
| Melting Point | 60.0~62.00°C | 60.0~61.2°C |
| Particle Size | 100% through 60 mesh | Conforms |
| Loss on Drying | ≤0.20% | 0.1% |
| Residue on Ignition | ≤0.10% | 0.03% |
| Specific Rotation | -1.00°-+1.00° | Conforms |
| Limit of polymer content | ≤2.0% | <2.0% |
| Single Unknown Impurity | ≤0.10% | 0.07% |
| Total Impurities | ≤0.50% | 0.26% |
| Heavy Metals | ≤10ppm | <10ppm |
| Cyclohexane | ≤1000ppm | 587ppm |
| Toluene | ≤30ppm | Conforms |
| Ethyl acetate | ≤250ppm | 70ppm |
| Cyclohexane | ≤1000ppm | 587ppm |
| Toluene | ≤30ppm | Conforms |
| Ethyl acetate | ≤250ppm | 70ppm |
| Cyclohexane | ≤1000ppm | 587ppm |

Storage: Store in tight, light-resistant containers, avoid exposure to direct sunlight, moisture and excessive heat.

Shelf Life: 24 months if store under the conditions above and stay in original packaging.

