

Hangzhou Hyper Chemicals Limited

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CERTIFICATE OF ANALYSIS

| Product Name: | S-Adenosyl-L-methionine Disulfate Tosylate | | |
|---|--|---------------------|---------------------------|
| Batch No. | C230305 | Quantity | 50KG |
| Manufacturing Date | March 17, 2023 | Packaging | 25KG/DRUM |
| Expiry Date | March 16, 2025 | Inspection Standard | USP41 |
| Analytical Results | | | |
| Items | Specifications | | Results |
| Appearance | White to off-white Powder | | White to off-white Powder |
| | Infrared: Conforms to the Reference Spectrum | | Complied |
| Identification | HPLC: The retention time of the major peak corresponds to the reference sample | | Complied |
| Water Content(K.F) | 3.0% MAX | | 1.0% |
| Sulphated Ash | 0.5% MAX. | | 0.4% |
| PH (5% AQUEOUS SOLUTION) | 1.0 -2.0 | | 1.2 |
| S, S-Isomer (HPLC) | 75.0% MIN | | 76.8% |
| SAM-e ION (HPLC) | 49.5 - 54.7% | | 51.8% |
| P-Toluenesulfonic Acid | 21.0%–24.0% | | 21.9% |
| Content of Sulfate (SO4) (HPLC) | 23.5%–26.5% | | 24.8% |
| S-Adenosyl-L-methionine Disulfate Tosylate | 95.0%–103% | | 98.5% |
| Related substances (HPLC) | S-ADENOSYL-L-HOMOCYSTEINE 1.0% MAX. | | 0.04% |
| | ADENINE 1.0% MAX. | | 0.49% |
| | METHYLTHIOADENOSINE 1.5% MAX | | 0.18% |
| | ADENOSINE 1.0% MAX | | 0.04% |
| | TOTAL IMPURITIES 3.5% MAX. | | 1.00% |
| Heavy Metals | Not more than 10 ppm | | Complied |
| Lead | Not more than 3 ppm | | Complied |
| Cadmium | Not more than 1 ppm | | Complied |
| Mercury | Not more than 0.1 ppm | | Complied |
| Arsenic | Not more than 2 ppm | | Complied |
| Microbiology | Total Aerobic Count ≤1000cfu/g | | Complies |
| | Yeast and mold count ≤100cfu/g | | Complies |
| | E. coli Absent/10g | | Complies |
| | S. aureus Absent/10g | | Complies |
| | Salmonella Absent/10g | | Complies |
| Conclusion | Complies with USP41 | | |

Inspector: Carlifor Wu

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Verifier: