

CERTIFICATE OF ANALYSIS

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|--|---|
| Product Name: Caffeine Anhydrous (BP2020, EP10.0, USP43, RI-CEP2003-027-Rev03) | |
| Other name: 1,3,7-trimethyl-3,7-dihydro-1H-purine-2,6-dione | |
| Molecular weight: 194.2 | Molecular formula: C ₈ H ₁₀ N ₄ O ₂ |
| Chemical Abstract No.: 58-08-2 | |
| Batch No.: 20081514 | Quantity: 500kg |
| Manufacture Date: 2020-08-17 | Retest Date: 2024-08-16 |

| Item: | Release specifications | Results |
|------------------------------|---|----------------------------------|
| Appearance | White or almost white crystalline powder | Complies |
| Identification | Melting point 234°C ~ 239°C IR Absorption conforms to reference. Loss on drying NMT. 0.5% | Complies Complies Complies |
| Assay | 98.5 – 101.0% | 99.9% |
| Acidity | NMT. 0.2ml of 0.01M NaOH | Complies |
| Clarity of solution | Clear and colourless | Complies |
| Heavy Metals (Pb) | NMT. 20ppm | <0.001% |
| Residual solvents | NMT. 60ppm | Complies |
| Sulphates (SO ₄) | NMT. 500ppm | 0.02% |
| Related substances | Each impurity A, B, C, D, E, F; NMT. 0.10% Unspecified impurities; NMT. 0.10% Total impurities; NMT. 0.1% | Complies Complies Complies |
| Organic impurities | Individual impurities; NMT. 0.1% Total impurities; NMT. 0.1% | 0.02% 0.02% |
| Residue on ignition | NMT. 0.1% | 0.02% |
| Shelf life | 48 months | In original packing conditions. |
| Storage | In cool, dry place away from light at below 25°C. | |
| Packing | In 25kg drum | |
| Origin | China | |

Conclusion: This batch is conforming with Enterprise Internal Standard.