

CERTIFICATE OF ANALYSIS

The Power to Question

Catalog Number: sc-281428 Lot Number: SAMPLE

Product Name: 4-Nitrophenyl-α-D-maltopyranoside

CAS Number: 17400-77-0 Molecular Formula: $C_{18}H_{25}NO_{13}$ Molecular Weight: 463.39

| Test | Specification | Result |
|---------------------------|-------------------------------------------------------------|-----------------------------------------------------|
| Appearance | White to off-white crystalline powder | Slightly off-white crystalline powder |
| Identification (FTIR) | Consistent with reference spectrum | Complies |
| Purity (HPLC) | ≥ 98.0% | 98.7% |
| Solution (Color) | Colorless (1% in water) | Complies |
| Solution (Turbidity) | ≤ 4.0 NTU (1% in water) | 1.4 NTU (1% in water) |
| Specific Rotation (α20/D) | 244.5 - 250.5° (c = 0.5 in water, calculated on dry matter) | 249.0° (c = 0.5 in water, calculated on dry matter) |
| Impurity | ≤ 0.1% (p-nitrophenol, HPLC) | 0.00% (p-nitrophenol, HPLC) |
| Water Content (KF) | ≤ 8.0% | 5.6% |

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