

# Product Specification

## Matrix Modifier, 0.2% Pd (2000 ppm Pd)

**Lot Number:** SAMPLE

**Product Number:** MMPD2KN

**Manufacture Date:** N/A

**Expiration Date:** N/A

Palladium concentration is certified traceable to NIST Standard Reference Material 3138. Nickel is a common contaminant of Palladium and may be present with other trace metals, which total 50 ppb or less. These very low levels will not interfere with the performance of this Matrix Modifier.

| Name              | CAS#      | Grade           |
|-------------------|-----------|-----------------|
| Water             | 7732-18-5 | ACS/ASTM/USP/EP |
| Nitric Acid       | 7697-37-2 | Trace Metals    |
| Palladium         | 7440-05-3 | High Purity     |
| Hydrochloric Acid | 7647-01-0 | Trace Metals    |

| Test           | Specification | Result | NIST SRM# |
|----------------|---------------|--------|-----------|
| Appearance     | Brown liquid  | N/A    |           |
| Palladium (Pd) | 1990-2010 ppm | N/A    | 3138      |

| Specification  | Reference   |
|--|-------------|
| Matrix Modifier, 0.2% Pd (2000 ppm Pd) Pd in 5% HNO <sub>3</sub> | EPA (200.9) |

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| MMPD2KN-100 | 100 mL natural LDPE | 24 months                       |
| MMPD2KN-50  | 50 mL natural poly  | 24 months                       |
| MMPD2KN-500 | 500 mL natural poly | 24 months                       |

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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