

## Certificate of Analysis

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**Product Name:** RJR 2403 oxalate

**Catalog No.:** 1053

**Batch No.:** 2

CAS Number: 220662-95-3

IUPAC Name: (*E*)-*N*-Methyl-4-(3-pyridinyl)-3-buten-1-amine oxalate

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>10</sub>H<sub>14</sub>N<sub>2</sub>·C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>

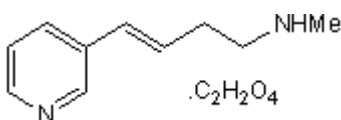
**Batch Molecular Weight:** 252.27

**Physical Appearance:** White solid

**Solubility:** water to 100 mM

**Storage:** Desiccate at +4°C

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.31 (Chloroform:Methanol:Ammonia soln. [9:1:3])

**HPLC:** Shows 100% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

|             | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 57.13  | 6.39     | 11.1     |
| Found       | 56.89  | 6.38     | 11.1     |

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

A neuronal nicotinic receptor agonist, showing high selectivity for the  $\alpha 4\beta 2$  subtype ( $K_i$  values are 26 and 36000 nM for  $\alpha 4\beta 2$  and  $\alpha 7$  receptors respectively). Active in vivo.

**Physical and Chemical Properties:**

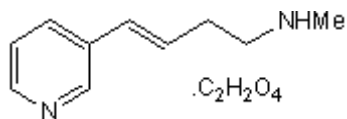
Batch Molecular Formula: C<sub>10</sub>H<sub>14</sub>N<sub>2</sub>.C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>

Batch Molecular Weight: 252.27

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Desiccate at +4°C

**Solubility & Usage Info:**

water to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Bencherif et al** (1996) RJR-2403: a nicotinic agonist with CNS selectivity I. *In vitro* characterization. J.Pharmacol.Exp.Ther. **279** 1413. PMID: 8968366.

**Lippiello et al** (1996) RJR-2403: a nicotinic agonist with CNS selectivity II. *In vivo* characterization. J.Pharmacol.Exp.Ther. **279** 1422. PMID: 8968367.

**Damaj et al** (1999) Antinociceptive and pharmacological effects of metanicotine, a selective nicotinic agonist. J.Pharmacol.Exp.Ther. **291** 390. PMID: 10490929.

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