

## Certificate of Analysis

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**Product Name:** MSOP

**Catalog No.:** 0803

**Batch No.:** 9

CAS Number: 66515-29-5

IUPAC Name: (RS)- $\alpha$ -Methylserine-O-phosphate

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>4</sub>H<sub>10</sub>NO<sub>6</sub>P·½H<sub>2</sub>O

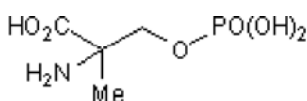
**Batch Molecular Weight:** 208.11

**Physical Appearance:** Off White solid

**Solubility:** water to 100 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	23.09	5.33	6.73
Found	22.92	5.39	6.49

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

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**Catalog No.:** 0803

**9**

CAS Number: 66515-29-5

IUPAC Name: (R*S*)- $\alpha$ -Methylserine-O-phosphate

**Description:**

MSOP is a selective group III metabotropic glutamate receptor antagonist. Displays an apparent  $K_D$  of 51  $\mu$ M for the L-AP4-sensitive presynaptic mGluR on primary afferent terminals in spinal cord compared to > 700  $\mu$ M for the (1*S*,3*S*)-ACPD-sensitive presynaptic mGlu in the same system. Has no activity on postsynaptic mGlu receptors or on ionotropic glutamate receptors on neonatal rat motoneurons.

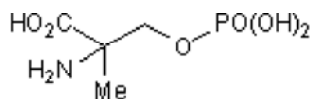
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>4</sub>H<sub>10</sub>NO<sub>6</sub>P·½H<sub>2</sub>O

Batch Molecular Weight: 208.11

Physical Appearance: Off White solid

**Batch Molecular Structure:**



**Storage:** Store at RT

**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:**

**Jane *et al*** (1996) Phosphono substituted amino acids as selective metabotropic glutamate receptor antagonists. Phosphorous, Sulphur and Silicon **109-110** 313.

**Thomas *et al*** (1996)  $\alpha$ -Methyl derivatives of serine-O-phosphate as novel, selective competitive metabotropic glutamate receptor antagonists. Neuropharmacology **35** 637. PMID: 8887973.

**Thomas *et al*** (1995) Serine-O-phosphate derivatives as novel, potent and selective metabotropic glutamate receptor (mGluR) antagonists. Soc.Neurosci.Abstr. **21** P616.

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