

**Product Name:** MSOP

**Catalog No.:** 0803

**Batch No.:** 8

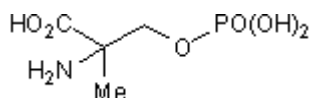
**CAS Number:** 66515-29-5

**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·1 $\frac{3}{4}$ H<sub>2</sub>O  
**Batch Molecular Weight:** 230.62  
**Physical Appearance:** 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	20.83	5.9	6.07
Found	20.47	6.14	5.91

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**Description:**

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 (1S,3S)-ACPD-sensitive presynaptic mGlu in the same system. Has no activity on postsynaptic mGlu receptors or on ionotropic glutamate receptors on neonatal rat motoneurons. Also available as part of the Group III mGlu Receptor Tocriset™.

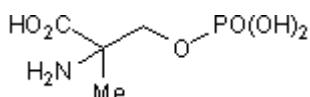
**Physical and Chemical Properties:**

Batch Molecular Formula:  $C_4H_{10}NO_6P \cdot 1\frac{3}{4}H_2O$

Batch Molecular Weight: 230.62

Physical Appearance: 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:**

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

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

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

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