

**Product Name:** D-Amphetamine sulfate

**Catalog No.:** 2813

**Batch No.:** 3

CAS Number: 51-63-8

EC Number: 200-111-6

IUPAC Name: (+)- $\alpha$ -Methylphenethylamine hemisulfate salt

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>9</sub>H<sub>13</sub>N.1/2H<sub>2</sub>SO<sub>4</sub>

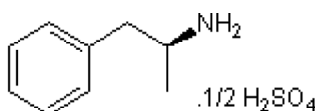
**Batch Molecular Weight:** 184.25

**Physical Appearance:** White solid

**Solubility:** water to 100 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.2 (Chloroform:Methanol [9:1])

**HPLC:** Shows 100% purity

**Chiral HPLC:** Shows 99.8% purity

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

**Mass Spectrum:** Consistent with structure

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

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**3**

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IUPAC Name: (+)- $\alpha$ -Methylphenethylamine hemisulfate salt

**Description:**

D-Amphetamine sulfate is a CNS stimulant. Targets monoamine transporters to elevate synaptic levels of noradrenalin, dopamine and serotonin. Also  $\alpha 7$  nAChR antagonist.

**Physical and Chemical Properties:**

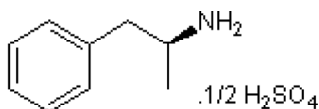
Batch Molecular Formula: C<sub>9</sub>H<sub>13</sub>N.1/2H<sub>2</sub>SO<sub>4</sub>

Batch Molecular Weight: 184.25

Physical Appearance: White solid

**Minimum Purity:**  $\geq 99\%$

**Batch Molecular Structure:**



**Storage:** Desiccate 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.

**Other Information:**

**INFORMATION FOR CUSTOMERS IN THE UK ONLY**

This product is a Schedule 2 Home Office controlled substance and customers in the UK are required to hold the relevant licence or be exempt from restrictions in order to purchase and possess this material.

**References:**

**Garton *et al*** (2018) Amphetamine enantiomers inhibit homomeric  $\alpha 7$  nicotinic receptor through a competitive mechanism and within the intoxication levels in humans. *Neuropharmacology*. PMID: 30359640.

**Rothman and Baumann** (2006) Balance between DA and serotonin release modulates behavioral effects of Amphetamine-type drugs. *Ann.N.Y.Acad.Sci.* **1074** 245. PMID: 17105921.

**Barr *et al*** (1999) Effects of withdrawal from an escalating dose schedule of *d*-Amphetamine on sexual behavior in the male rat. *Pharmacol.Biochem.Behav.* **64** 597. PMID: 10548277.

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