

Certificate of Analysis

Print Date: Jan 15th 2016

www.tocris.com

Product Name: Acephate Catalog No.: 3069 Batch No.: 1

CAS Number: 30560-19-1 EC Number: 250-241-2

IUPAC Name: Acetylphosphoramidothioic acid O, S-dimethyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_4H_{10}NO_3PS$

Batch Molecular Weight: 183.17
Physical Appearance: White solid

Solubility: water to 100 mM Storage: Store at +4°C

Batch Molecular Structure:

MeS N N

2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 26.23 5.5 7.64 Found 26.14 5.55 7.49



Product Information

Print Date: Jan 15th 2016

www.tocris.com

Product Name: Acephate Catalog No.: 3069 Batch No.: 1

CAS Number: 30560-19-1 EC Number: 250-241-2

IUPAC Name: Acetylphosphoramidothioic acid O,S-dimethyl ester

Description:

Anticholinesterase insecticide that produces cholinotoxicity. Displays weak inhibition of rat acetylcholinesterase (AChE) but potently inhibits cockroach AChE.

Physical and Chemical Properties:

Batch Molecular Formula: C₄H₁₀NO₃PS Batch Molecular Weight: 183.17 Physical Appearance: White solid

Batch Molecular Structure:

Storage: Store 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:

Singh (1990) Molecular properties and inhibition of acetylcholinesterase obtained from rat brain and cockroach ganglion. Toxicol.Ind.Health **6** 551.

Kumar (2004) Changes in rat brain regions serotoninergic system following acephate poisoning. Pest.Biochem.Physiol. 78 140.