

## Certificate of Analysis

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**Product Name:** *N*-Acetyl-*N*-acetoxy-4-chlorobenzenesulfonamide

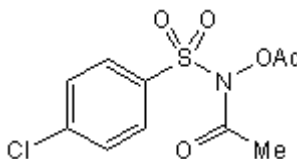
**Catalog No.:** 0722

**Batch No.:** 1

**CAS Number:** 142867-52-5

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>10</sub> H <sub>10</sub> ClNO <sub>5</sub> S
<b>Batch Molecular Weight:</b>	291.71
<b>Physical Appearance:</b>	White crystalline solid
<b>Solubility:</b>	DMSO to 100 mM
<b>Storage:</b>	Desiccate at +4°C
<b>Batch Molecular Structure:</b>	



### 2. ANALYTICAL DATA

<b>TLC:</b>	R <sub>f</sub> = 0.63 (Dichloromethane:Methanol [10:1])
<b>Melting Point:</b>	Between 116 - 118°C
<b><sup>1</sup>H NMR:</b>	Consistent with structure

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

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**Description:**

A pro-drug of the potent vasorelaxant nitroxyl, H-N=O, which it slowly releases in neutral solution. HNO eventually dimerizes and dehydrates to N<sub>2</sub>O, without producing NO. Also a powerful inhibitor of aldehyde dehydrogenase.

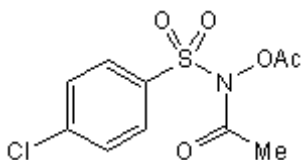
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>10</sub>H<sub>10</sub>ClNO<sub>5</sub>S

Batch Molecular Weight: 291.71

Physical Appearance: White crystalline solid

**Batch Molecular Structure:**



**Storage:** Desiccate at +4°C

**Solubility & Usage Info:**

DMSO 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:**

**Fukuto et al** (1992) N,O-Diacylated-N-hydroxyarylsulfonamides: nitroxyl precursors with potent smooth muscle relaxant properties. *Biochem.Biophys.Res.Commun.* **187** 1367. PMID: 1417812.

**Lee et al** (1992) Prodrugs of nitroxyl as inhibitors of aldehyde dehydrogenase. *J.Med.Chem.* **35** 3648. PMID: 1433175.

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