

## Certificate of Analysis

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**Product Name:** Pirfenidone

**Catalog No.:** 1093

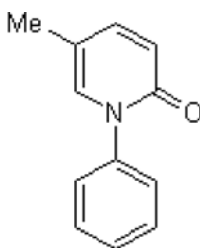
**Batch No.:** 7

CAS Number: 53179-13-8

IUPAC Name: 5-methyl-1-phenyl-2(1*H*)-pyridinone

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>12</sub>H<sub>11</sub>NO  
**Batch Molecular Weight:** 185.23  
**Physical Appearance:** Off White solid  
**Solubility:** water to 20 mM  
 1eq. HCl to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.6% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	77.81	5.99	7.56
Found	77.94	5.99	7.64

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

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**Catalog No.:** 1093

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CAS Number: 53179-13-8

IUPAC Name: 5-methyl-1-phenyl-2(1*H*)-pyridinone

**Description:**

Antifibrotic agent, effective in models of pulmonary and lung fibrosis. Inhibits collagen production and fibroblast proliferation. Regulates cytokine levels following oral administration in vivo. Potent scavenger of free radicals and inhibitor of lipid peroxidation.

**Physical and Chemical Properties:**

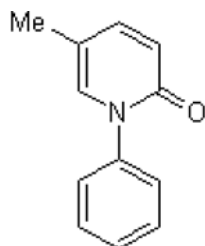
Batch Molecular Formula: C<sub>12</sub>H<sub>11</sub>NO

Batch Molecular Weight: 185.23

Physical Appearance: Off White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Mei et al** (2005) Protection of pirfenidone against an early phase of oleic acid-induced acute lung injury in rats. *J.Pharmacol.Exp.Ther.* **313** 379. PMID: 15608079.

**Oku et al** (2002) Pirfenidone suppresses tumor necrosis factor- $\alpha$ , enhances interleukin-10 and protects mice from endotoxic shock. *Eur.J.Pharmacol.* **446** 167. PMID: 12098599.

**Iyer et al** (1999) Effects of pirfenidone on procollagen gene expression at the transcriptional level in bleomycin hamster model of lung fibrosis. *J.Pharmacol.Exp.Ther.* **289** 211. PMID: 10087006.

**Kehrer and Margolin** (1997) Pirfenidone diminishes cyclophosphamide-induced lung fibrosis in mice. *Toxicol.Lett.* **90** 125. PMID: 9067480.

**Storage:** Store at RT

**Solubility & Usage Info:**

water to 20 mM  
1eq. HCl 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.

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