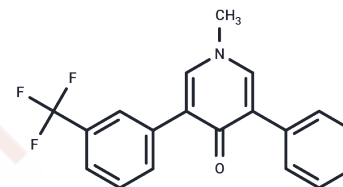


## Fluridone

## Chemical Properties

CAS No. :	59756-60-4
Formula:	C <sub>19</sub> H <sub>14</sub> F <sub>3</sub> NO
Molecular Weight:	329.32
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Fluridone (EL-171) is a potent inhibitor of abscisic acid (ABA) synthesis, inhibits the expression of AchnFAR and TF genes, and reduces the formation of primary alcohol. Fluridone is often used as an aquatic herbicide to control invasive plants and is also used to control species such as hydra and Eurasian hydra.
Targets(IC50)	Others
In vitro	Fluridone is cytotoxic to the cyanobacterium <i>Anacystis nidulans</i> (LC <sub>50</sub> = 0.125 μM).[1][4] Fluridone (50 and 100 μM) decreases β-carotene levels and induces accumulation of phytofluene and phytoene in <i>T. aestivum</i> seedlings grown in the dark.[2] It reduces levels of the plant hormone abscisic acid in hydrated and dehydrated <i>V. faba</i> leaves when used at a concentration of 10 μM.[3]
In vivo	Fluridone has acute toxicity against several species of invertebrates and fish (median LC <sub>50</sub> s = 4.3 and 10.4 mg/L, respectively).1,4 Formulations containing fluridone have been used as aquatic herbicides.[1][4]

## Solubility Information

Solubility	DMSO: 250 mg/mL (759.14 mM), Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.0366 mL	15.1828 mL	30.3656 mL
5 mM	0.6073 mL	3.0366 mL	6.0731 mL
10 mM	0.3037 mL	1.5183 mL	3.0366 mL
50 mM	0.0607 mL	0.3037 mL	0.6073 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Chamovitz D, et al. Molecular and biochemical characterization of herbicide-resistant mutants of cyanobacteria reveals that phytoene desaturation is a rate-limiting step in carotenoid biosynthesis. *J Biol Chem.* 1993;268(23): 17348-17353.

Bartels P G, et al. Inhibition of carotenoid synthesis by fluridone and norflurazon. *Weed Science*, 1978;26(2): 198-203.

Popova L P, et al. Development and accumulation of ABA in fluridone-treated and drought-stressed *Vicia faba* plants under different light conditions. *Physiologia Plantarum*, 1996;98(4): 791-797.

Hamelink J L, et al. Toxicity of fluridone to aquatic invertebrates and fish[J]. *Environmental Toxicology and Chemistry. An International Journal.* 1986;5(1): 87-94.

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