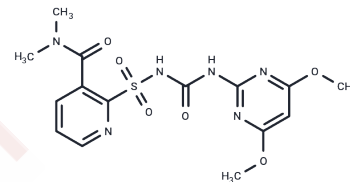


Nicosulfuron

Chemical Properties

CAS No. :	111991-09-4
Formula:	C ₁₅ H ₁₈ N ₆ O ₆ S
Molecular Weight:	410.40
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	Nicosulfuron (Milagro) is a pesticide that works by inhibiting the acetolactate synthase enzyme. Nicosulfuron has not been found to induce mutagenic or carcinogenic effects. Nicosulfuron is a herbicide to protect corn crops from weeds.
Targets(IC50)	Others,Antifungal,Photosystem (PS)

Solubility Information

Solubility	DMSO: 62.5 mg/mL (152.29 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 6.25 mg/mL (15.23 mM),Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.87 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4366 mL	12.1832 mL	24.3665 mL
5 mM	0.4873 mL	2.4366 mL	4.8733 mL
10 mM	0.2437 mL	1.2183 mL	2.4366 mL
50 mM	0.0487 mL	0.2437 mL	0.4873 mL

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

- Zhao W, Wang C, Xu L, Zhao C, Liang H, Qiu L. Biodegradation of nicosulfuron by a novel *Alcaligenes faecalis* strain ZWS11. *J Environ Sci (China)*. 2015 Sep 1;35:151-162.
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- Lu XH, Kang ZH, Tao B, Wang YN, Dong JG, Zhang JL. Degradation of nicosulfuron by *Bacillus subtilis* YB1 and *Aspergillus niger* YF1. *Prikl Biokhim Mikrobiol*. 2012 Sep-Oct;48(5):510-5.
- Kang ZH, Ren CC, Zhang JL, Dong JG, Li X, Wei XJ. Purification and cloning of nicosulfuron-degrading enzymes from *Bacillus subtilis* YB1. *Prikl Biokhim Mikrobiol*. 2014 Jan-Feb;50(1):39-43.

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