# Data Sheet (Cat.No.T14527)



#### Benfluralin

# **Chemical Properties**

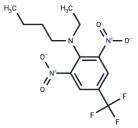
CAS No.: 1861-40-1

Formula: C13H16F3N3O4

Molecular Weight: 335.28

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



# **Biological Description**

Description	Benfluralin, a pre-emergence herbicide and agrochemical, is utilized for controlling grass and various weed species in both food and non-food crop applications.		
Targets(IC50)	Others		
In vivo	A review of the toxicology database provides evidence that the mode of action (MOA) of benfluralin responsible for hepatocellular adenoma and carcinoma in rodents depends on activation of the constitutive androstane (CAR)/pregnane X (PXR) receptors, that triggers enzyme induction and altered gene expression leading to hepatocyte proliferation[1].		

## **Solubility Information**

Solubility	DMSO: 145 mg/mL (432.47 mM),Sonication is recommended.	
	(< 1 mg/ml refers to the product slightly soluble or insoluble)	

## **Preparing Stock Solutions**

	1mg	5mg	10mg
1 mM	2.9826 mL	14.9129 mL	29.8258 mL
5 mM	0.5965 mL	2.9826 mL	5.9652 mL
10 mM	0.2983 mL	1.4913 mL	2.9826 mL
50 mM	0.0597 mL	0.2983 mL	0.5965 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.

#### Reference

Strupp C, Quesnot N, Richert L, Moore J, Bomann WH, Singh P. Weight of evidence and human relevance evaluation of the benfluralin mode of action in rodents (Part I): Liver carcinogenesis. Regul Toxicol Pharmacol. 2020 Nov;117: 104758.

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