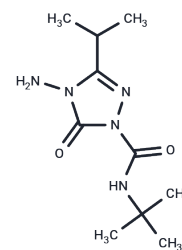


## Amicarbazone

## Chemical Properties

CAS No. :	129909-90-6
Formula:	C10H19N5O2
Molecular Weight:	241.29
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	Amicarbazone (BAY-MKH3586; BAY314666) is a potent PSII inhibitor, disrupting photosynthetic electron transport by binding to the Qb domain of photosystem II. This broad-spectrum herbicide is effective through foliar and root application, showcasing rapid absorption and translocation. However, its effectiveness can be compromised by common PSII inhibitor resistance. With an IC <sub>50</sub> value indicating high potency, amicarbazone leads to chlorosis, stunted growth, tissue necrosis, and death in sensitive plants. Despite these severe effects, it exhibits good selectivity and outperforms atrazine as a herbicide, allowing for its application at lower doses compared to traditional photosynthetic inhibitors.
Targets(IC <sub>50</sub> )	Others

## Solubility Information

Solubility	H <sub>2</sub> O: 1 mg/mL (4.14 mM), Sonication and heating to 50°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1444 mL	20.722 mL	41.4439 mL
5 mM	0.8289 mL	4.1444 mL	8.2888 mL
10 mM	0.4144 mL	2.0722 mL	4.1444 mL
50 mM	0.0829 mL	0.4144 mL	0.8289 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

Franck E. Dayan, et al. Amicarbazone, a New Photosystem II Inhibitor . ed Science 57(6):579-583. 2009

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