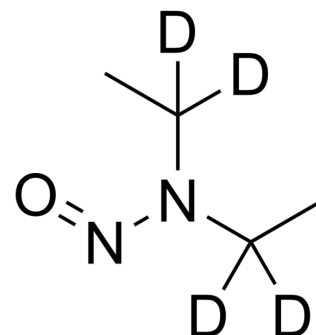


## N-Nitrosodiethylamine-d<sub>4</sub>

Cat. No.:	HY-N7434S
CAS No.:	1346603-41-5
Molecular Formula:	C <sub>4</sub> H <sub>6</sub> D <sub>4</sub> N <sub>2</sub> O
Molecular Weight:	106.16
Target:	DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	N-Nitrosodiethylamine-d <sub>4</sub> is the deuterium labeled N-Nitrosodiethylamine[1]. N-Nitrosodiethylamine (Diethylnitrosamine) is a potent hepatocarcinogenic dialkylnitrosoamine. N-Nitrosodiethylamine is mainly present in tobacco smoke, water, cheddar cheese, cured, fried meals and many alcoholic beverages. N-Nitrosodiethylamine is responsible for the changes in the nuclear enzymes associated with DNA repair/replication. N-Nitrosodiethylamine results in various tumors in all animal species. The main target organs are the nasal cavity, trachea, lung, esophagus and liver.
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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