

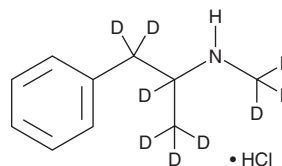
# PRODUCT INFORMATION



## (±)-Methamphetamine-d<sub>9</sub> (hydrochloride)

Item No. 22836

**CAS Registry No.:** 1219805-48-7  
**Formal Name:** N,α-di(methyl-d<sub>3</sub>)-benzeneethan-α,β,β-d<sub>3</sub>-amine, monohydrochloride  
**Synonym:** DL-Methamphetamine-d<sub>9</sub>  
**MF:** C<sub>10</sub>H<sub>6</sub>D<sub>9</sub>N • HCl  
**FW:** 194.8  
**Chemical Purity:** ≥98% ((±)-Methamphetamine)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>9</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥5 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Description

(±)-Methamphetamine-d<sub>9</sub> (hydrochloride) (Item No. 22836) is intended for use as an internal standard for the quantification of (±)-methamphetamine (Item Nos. ISO60168 | 36566) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Methamphetamine is categorized as an amphetamine and consists of dextrorotary and levorotary enantiomers.<sup>1,2</sup> (+)-Methamphetamine (Item No. 13997) is the more physiologically active isomer compared with (-)-methamphetamine (Item No. 13998). Methamphetamine is both neurotoxic and frequently abused.<sup>3</sup> (±)-Methamphetamine-d<sub>9</sub> is regulated as a Schedule II compound in the United States. This product is intended for research and forensic applications.

### References

1. Jirovsky, D., Lemr, K., Sevcik, J., *et al.* Methamphetamine - properties and analytical methods of enantiomer determination. *Forensic Sci. Int.* **96(1)**, 61-70 (1998).
2. Rothman, R.B., Baumann, M.H., Dersch, C.M., *et al.* Amphetamine-type central nervous system stimulants release norepinephrine more potently than they release dopamine and serotonin. *Science* **39(1)**, 32-41 (2001).
3. Yu, S., Zhu, L., Shen, Q., *et al.* Recent advances in methamphetamine neurotoxicity mechanisms and its molecular pathophysiology. *Behav. Neurol.* 103969 (2015).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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