

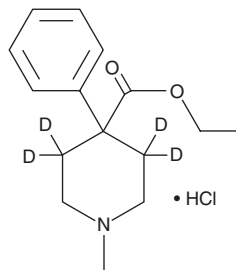
# PRODUCT INFORMATION



## Meperidine-d<sub>4</sub> (hydrochloride)

Item No. 18561

**CAS Registry No.:** 2748469-74-9  
**Formal Name:** 1-methyl-4-phenyl-4-piperidine-d<sub>4</sub>-carboxylic acid, ethyl ester, monohydrochloride  
**Synonym:** Pethidine-d<sub>4</sub>  
**MF:** C<sub>15</sub>H<sub>17</sub>D<sub>4</sub>NO<sub>2</sub> • HCl  
**FW:** 287.8  
**Purity:** ≥98%  
**Supplied as:** A neat solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Description

Meperidine-d<sub>4</sub> (hydrochloride) (Item No. 18561) is an analytical reference material intended for use as an internal standard for the quantification of meperidine (Item No. 19406) 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).

Meperidine is categorized as an opioid.<sup>1</sup> It is an opioid analgesic that is commonly abused.<sup>2</sup> Meperidine-d<sub>4</sub> is regulated as a Schedule II compound in the United States. This product is intended for research and forensic applications.

This product is qualified as a Reference Material that has been manufactured and tested to ISO/IEC 17025 and ISO 17034 international standards.

### References

1. Ossipov, M.H., Harris, S., Lloyd, P., *et al.* Antinociceptive interaction between opioids and medetomidine: Systemic additivity and spinal synergy. *Anesthesiology* **73(6)**, 1227-1235 (1990).
2. Atluri, S.A., Sudarshan, G., and Manchikanti, L. Assessment of the trends in medical use and misuse of opioid analgesics from 2004 to 2011. *Pain Physician* **17(2)**, E119-E128 (2014).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM