

Certificate of Analysis

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Product Name: Mephedrone hydrochloride

Catalog No.: 4443

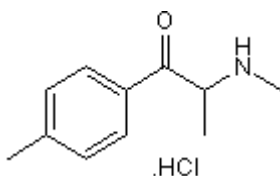
Batch No.: 1

CAS Number: 1189726-22-4

IUPAC Name: (±)-2-Methylamino-1-(4-methylphenyl)propan-1-one hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₅NO.HCl
Batch Molecular Weight: 213.7
Physical Appearance: White solid
Solubility: water to 100 mM
DMSO to 100 mM
ethanol to 50 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.44 (Chloroform:Methanol [9:1])
HPLC: Shows 99.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: (±)-2-Methylamino-1-(4-methylphenyl)propan-1-one hydrochloride

Description:

Inhibits striatal dopamine uptake and hippocampal 5-HT uptake in synaptosomes (IC₅₀ values are 467 and 558 nM respectively). Administration causes a decrease in dopamine and 5-HT transporter function. Synthetic CNS stimulant; brain penetrant.

Physical and Chemical Properties:

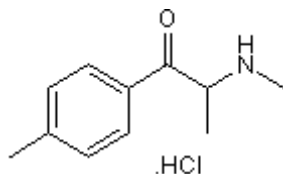
Batch Molecular Formula: C₁₁H₁₅NO.HCl

Batch Molecular Weight: 213.7

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

water to 100 mM
DMSO to 100 mM
ethanol to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Other Information:

INFORMATION FOR CUSTOMERS IN THE UK ONLY

This product is a Schedule 1 Home Office controlled substance and customers in the UK are required to hold the relevant licence or be exempt from restrictions in order to purchase and possess this material.

INFORMATION FOR CUSTOMERS IN THE USA ONLY

This product is a Schedule I DEA controlled substance and customers in the USA are required to hold a controlled substance registration in order to purchase and possess this material (in accordance with Title 21 code of federal regulations part 1300 to end).

INFORMATION FOR CUSTOMERS IN CANADA ONLY

This product is a Schedule I CDSA controlled substance and customers in Canada require an import permit to purchase this material.

References:

Hadlock et al (2011) 4-methylmethcathinone (mephedrone): neuropharmacological effects of a designer stimulant of abuse. *J.Pharmacol.Exp.Ther.* **339** 530. PMID: 21810934.

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