

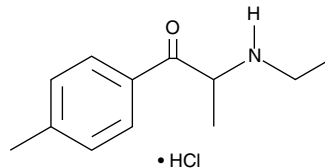
Product Information



4-Methylethcathinone (hydrochloride) (exempt preparation)

Item No. 16049

CAS Registry No.: 1266688-86-1
Formal Name: 2-(ethylamino)-1-(4-methylphenyl)-1-propanone, monohydrochloride
Synonyms: 4-methyl-N-ethyl Cathinone, 4-MEC
MF: C₁₂H₁₇NO • HCl
FW: 227.7
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A solution in methanol
UV/Vis.: λ_{max}: 260 nm



Laboratory Procedures

For long term storage, we suggest that 4-methylethcathinone (4-MEC) (hydrochloride) (exempt preparation) be stored as supplied at -20°C. It should be stable for at least two years.

4-MEC (hydrochloride) (exempt preparation) is supplied as a solution in methanol. To change the solvent, simply evaporate the methanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 4-MEC (hydrochloride) (exempt preparation) in ethanol and DMSO is approximately 30 mg/ml and approximately 12.5 mg/ml in DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 4-MEC (hydrochloride) (exempt preparation) is needed, it can be prepared by evaporating the methanol and directly dissolving the neat oil in aqueous buffers. The solubility of 4-MEC (hydrochloride) (exempt preparation) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

4-MEC is a cathinone derivative identified in several designer, recreational drugs that are sold as “legal high” replacements for controlled stimulants such as methamphetamine and 3,4-methylenedioxymethamphetamine.¹⁻³ The hydrochloride formulation of this compound is intended for use as a standard for the forensic analysis of samples that may contain 4-MEC.

References

- Schifano, F., Albanese, A., Fergus, S., *et al.* Mephedrone (4-methylmethcathinone; ‘meow meow’): Chemical, pharmacological and clinical issues. *Psychopharmacol. (Berl)*. **214(3)**, 593-602 (2011).
- Santali, E.Y., Cadogan, A.-K., Nic Daeid, N., *et al.* Synthesis, full chemical characterisation and development of validated methods for the quantification of (±)-4'-methylmethcathinone (mephedrone): A new “legal high”. *J. Pharm. Biomed. Anal.* **56**, 246-255 (2011).
- Gibbons, S. and Zloh, M. An analysis of the ‘legal high’ mephedrone. *Bioorg. Med. Chem. Lett.* **20(14)**, 4135-39 (2010).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16049

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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