

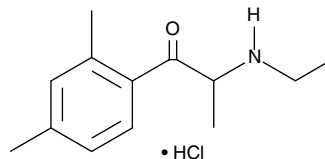
# Product Information



## 2,4-Dimethylethcathinone (hydrochloride)

Item No. 11242

<b>Formal Name:</b>	1-(2,4-dimethylphenyl)-2-(ethylamino)propan-1-one, monohydrochloride
<b>Synonym:</b>	2,4-DMEC
<b>MF:</b>	C <sub>13</sub> H <sub>19</sub> NO • HCl
<b>FW:</b>	241.8
<b>Purity:</b>	≥98%
<b>Stability:</b>	≥2 years at -20°C
<b>Supplied as:</b>	A crystalline solid
<b>UV/Vis.:</b>	λ <sub>max</sub> : 260, 208 nm



### Laboratory Procedures

For long term storage, we suggest that 2,4-dimethylethcathinone (2,4-DMEC) (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

2,4-DMEC (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the 2,4-DMEC (hydrochloride) in the solvent of choice. 2,4-DMEC (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 2,4-DMEC (hydrochloride) in ethanol and DMSO is approximately 20 mg/ml and approximately 10 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. Organic solvent-free aqueous solutions of 2,4-DMEC (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 2,4-DMEC (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Substituted cathinones are psychoactive compounds commonly used as recreational drugs.<sup>1,2</sup> Ethcathinone (Item No. 11241) is a substituted cathinone that produces amphetamine-like stimulus effects in rats trained to discriminate amphetamine from vehicle.<sup>3</sup> It has been identified as a component of capsules or tablets.<sup>2,4</sup> 2,4-DMEC is a disubstituted analog of ethcathinone. Its physiological and toxicological properties have not been investigated. This product is intended for forensic and research purposes.

### 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).
- Kikura-Hanajiri, R., Uchiyama, N., and Goda, Y. Survey of current trends in the abuse of psychotropic substances and plants in Japan. *Leg. Med. (Tokyo)* **13(3)**, 109-15 (2011).
- Dal Cason, T.A., Young, R., and Glennon, R.A. Cathinone: An investigation of several N-alkyl and methylenedioxy-substituted analogs. *Pharmacol. Biochem. Behav.* **58(4)**, 1109-1116 (1997).
- Camilleri, A., Johnston, M.R., Brennan, M., *et al.* Chemical analysis of four capsules containing the controlled substance analogues 4-methylmethcathinone, 2-fluoromethamphetamine,  $\alpha$ -phthalimidopropiophenone and N-ethylcathinone. *Forensic Sci. Int.* **197**, 59-66 (2010).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/11242](http://www.caymanchem.com/catalog/11242)

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

### MATERIAL 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 Material Safety Data Sheet, which has been sent *via* email to your institution.

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