

Emerging Designer Drug Monograph

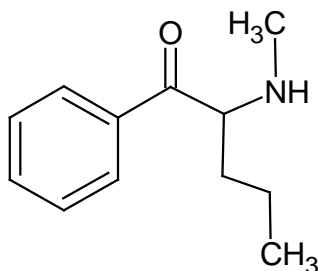
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Drug Name: Pentedrone

Synonyms: 2-(methylamino)-1-phenylpentan-1-one, 2-(methylamino)-1-phenyl-1-pentanone, monohydrochloride, α -methylamino-Valerophenone

Structure:



Formula: C₁₂H₁₇NO

Molecular Weight: 191.3

Pharmacological Drug Class: Ketone derivative of amphetamine that acts as a CNS stimulant.

Metabolism: Metabolism for Pentedrone has not been recorded in the literature.

Blood Concentrations: No blood concentrations have been recorded in literature on pentedrone.

Effects and Toxicity: Pentedrone is a stimulant drug structurally related to methcathinone. User accounts describe effects similar to cocaine at moderate doses including alertness, mild euphoria, numbness, and paranoia. Toxicity in cases of co-administration with other stimulants is caused by cardiovascular effects (1).

Analysis: This is a low molecular weight, basic compound that can be found as a hydrochloride salt. Pentedrone base form has been analyzed by NMR and GC-MS. GC-MS analysis should follow derivatization of active hydrogens. Trimethylsilyl derivatives give a molecular ion of m/z 249 and an alpha cleavage ion of m/z 234. Silylated derivatives yield ions m/z 144 and 105 (2). SWGDRUG outlines GC-MS parameters and sample chromatograms.

References:

1. Zuba, D., Adamowicz, P., Byrska, B. (2013) Detection of buphedrone in biological and non-biological material--two case reports. *Forensic Science International*, 227(1-3), 15 - 20.

<http://www.ncbi.nlm.nih.gov/pubmed/22981959>

2. Maheux, C. R., Copeland, C. R. (2012) Chemical analysis of two new designer drugs: buphedrone and pentedrone. *Drug Testing Analysis*, 4(1), 17 - 23.

<http://www.ncbi.nlm.nih.gov/pubmed/22113925>

Cayman Chemical

<https://www.caymanchem.com/app/template/Product.vm/catalog/11011>

Forendex

<http://forendex.southernforensic.org/index.php/detail/index/1164>

SWGDRUG Monograph

<http://www.swgdrug.org/Monographs/pentedrone.pdf>

Drugs- Forum User Accounts

<http://www.drugs-forum.com/forum/showwiki.php?title=Pentedrone>