

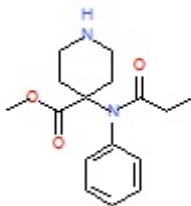
Drug Status Report

Drug: Norcarfentanil

Drug Name Status: Norcarfentanil is the common name.

Chemical Name: Methyl 4-((propionyl)phenylamino)piperidine-4-carboxylate

Chemical structure:



Molecular Formula: C₁₆H₂₂N₂O₃ **CAS-RN:** 72996-78-2

Pharmacological class / Application: Metabolite of carfentanil

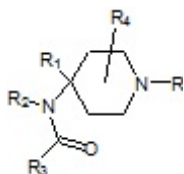
International status:

US: Norcarfentanil is not currently listed in the Schedules to the CSA and is not mentioned on the DEA website.

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control nor the Green List - List of Psychotropic Substances under International Control.

Canadian Status: Norcarfentanil is not currently listed in the Schedules to the CDSA. The substance has been reported in the literature to be a metabolite of carfentanil¹, which is currently listed as sub-item 16(3) under Schedule I to the CDSA under the heading "Fentanyl, their salts, derivatives, and analogues and salts of derivatives and analogues, including:" While the substance is a metabolite of carfentanil, it does not contain the common root structure of the fentanyls as shown below:

¹Endres, C.J. et al. (2003) Quantification of brain μ -opioid receptors with [¹¹C]carfentanil: reference -tissue methods, Nuclear Med. Biol. **30**:177-186.



R=ethyl group substituted variously at the 1 and 2 position
 R₁=hydrogen, methoxymethyl or carboxylate alkyl ester
 R₂=phenyl or substituted phenyl
 R₃=alkyl
 R₄=hydrogen or alkyl

Therefore, the substance cannot be included under the heading “Fentanyl, their salts, derivatives, and analogues and salts of derivatives and analogues, including” of item 16 of Schedule I to the CDSA. The review of metabolites of other fentanyls, for example, O-Desmethylnoralfentanil which is a metabolite of alfentanil also excluded the substance from item 16 of Schedule I on the basis that it did not have the core structure of the fentanyls.

Recommendation: Norcarfentanil is not included under item 16(3) of Schedule I to the CDSA and is not a controlled substance.

October 18th 2010