Drug Status Report

Drug: Lofentanil

Drug Name Status: Lofentanil is the proper name (INN).

Chemical Name: \textit{cis}-(\textit{\textminus})-3\texttext{-methyl-4-[(1-oxopropyl)phenylamino]-1-(2-phenylethyl)-4-piperidinecarboxylic acid methyl ester}

Other Names: 4-Piperidinecarboxylic acid, 3-methyl-4-((1-oxopropyl)-phenylamino)-1-(2-phenylethyl)-, methyl ester, \textit{cis}-(\textit{\textminus})-

Chemical structure:

\[
\text{lofentanil} \quad \text{fentanyl} \quad \text{carfentanil}
\]

Molecular Formula: \(C_{25}H_{32}N_2O_3\)

Pharmacological class / Application: analgesic

International status:

US: The substance is not currently listed on the US Controlled Substances Act 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: Lofentanil is a potent analgesic\(^1\) and contains the root structure common to the fentanyls. The substance is considered an analogue of fentanyl and carfentanil, which are listed as sub-items 3 and 5, respectively, under item 16 of Schedule I to the CDSA. Item 16 of Schedule I is “Fentanyl, their salts, derivatives and analogues and salts of derivatives and analogues.” Considering that lofentanil is a structural analogue of fentanyl and carfentanil, the

substance is included under Item 16 of Schedule I to the CDSA.

Recommendation: Lofentanil is included under Item 16 of Schedule I to the CDSA and is a controlled substance.

April 9th 2010