Drug Status Report

**Drug**: trans-4-Phenyl-3-[(3,4-methylenedioxy)phenoxy)methyl]piperidine (I)

**Drug Name Status**: trans-4-Phenyl-3-[(3,4-methylenedioxy)phenoxy)methyl]piperidine is the common name.

**Chemical Name**: trans-4-Phenyl-3-[(3,4-methylenedioxy)phenoxy)methyl]piperidine

**Chemical structure**:

![Chemical structure](image)

**Molecular Formula**: $C_{19}H_{21}NO_3$

**Pharmacological class / Application**: pharmaceutical related substance

**International status**:

US: The substance is not listed on the schedules to the US Controlled Substances Act.

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

Canadian Status: Trans-4-phenyl-3-[(3,4-methylenedioxy)phenoxy)methyl]piperidine is an analogue of paroxetine which is listed on Schedule F to the Food and Drug Regulations.

“Phenylpiperidines, their intermediates, salts, derivatives and analogues and salts of intermediates, derivatives and analogues” is listed as item 3 of Schedule I. Strictly interpreted, the text of item 3 of Schedule I includes a wide range of chemical substances.

However, it would seem reasonable to interpret the text of item 3 of Schedule I in the context of the CDSA. Item 3 of Schedule I intends to include a class of narcotic analgesic drugs. This class of drugs, as defined by the specific substances given as examples in subitems 1 through 24 is characterized by the following three chemical structure elements.
Root 1 includes drugs (anileridine, diphenoxylate, pethidine, etc.) of this class where a carboxylic acid function exists at the four position of the piperidine. Root 2 includes methylphenylisonipecotonitrile, a precursor to pethidine. Root 3 includes drugs (alphaprodine, betameprodine, etc.) where an ester is attached at the four position of the piperidine ring. Other members in the class are differentiated by the type of group attached at R₁ and other substituents attached to the piperidine and phenyl rings. Limiting the interpretation of item 3 to include only substances with these three root structures will continue to control narcotic analgesics without capturing common chemicals and other drugs. This approach has been used previously in assessing the status of other phenylpiperidines.

Recommendation: Trans-4-phenyl-3-[(3,4-methylenedioxy)phenoxy]piperidine is not included in the schedules to the CDSA and is not a controlled substance.

October 2, 2009