

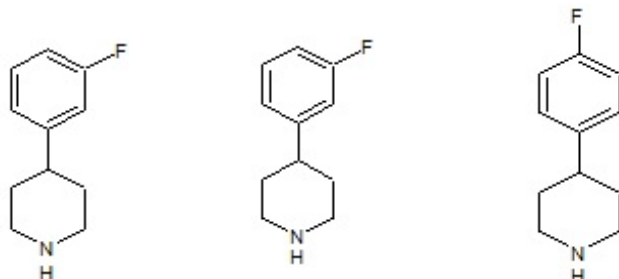
## Drug Status Report

**Drug:** 4-(Fluorophenyl)piperidine

**Drug Name Status:** 4-(Fluorophenyl)piperidine is the common name

**Chemical Name:** 4-(2-Fluorophenyl)piperidine; 4-(3-fluorophenyl)piperidine; 4-(4-fluorophenyl)piperidine

**Chemical structure:**



There are three possible positional isomers of 4-fluorophenylpiperidines.

**Molecular Formula:** C<sub>11</sub>H<sub>14</sub>FN

**Pharmacological class / Application:** fine chemical

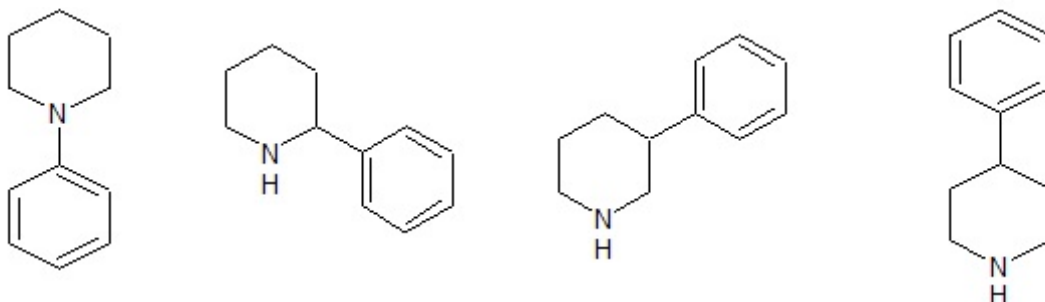
**International status:**

US: 4-(Fluorophenyl)piperidines are not currently listed explicitly on the schedules to the US Controlled Substances Act and are not mentioned on the DEA website.

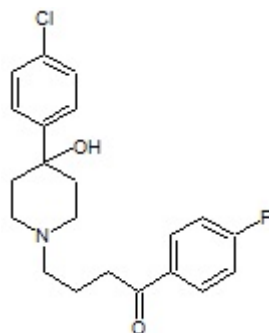
United Nations: The substances are not listed on the Yellow List - List of Narcotic Drugs under International Control nor the Green List - List of Psychotropic Substances under International Control.

Canadian Status: "Phenylpiperidines, their intermediates, salts, derivatives and analogues and salts of intermediates, derivatives and analogues" is listed as item 3 of Schedule I.

"Phenylpiperidine" may refer to the following four positional isomers.

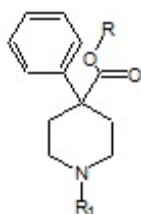


Strictly interpreted, the text of item 3 of Schedule I includes a wide range of chemical substances. For example, haloperidol (structure below), a drug not currently subject to the CDSA, would be included if an unrestricted interpretation of item 3 is used. Many other chemicals used commonly in chemical procedures would also become subject to the CDSA.

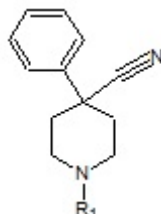


Haloperidol

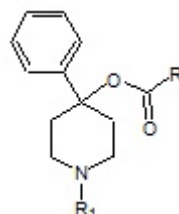
It would seem reasonable to interpret the text of item 3 of Schedule I in the context of the CDSA. Item 3 of Schedule I intends to include a class of narcotic analgesic drugs. This class of drugs, as defined by the specific substances given as examples in subitems 1 through 24 is characterized by the following three chemical structure elements.



Root 1



Root 2



Root 3

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 methylphenyl-isonipecotonitrile, 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  $R_1$  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.

Recommendation: The isomers of 4-(fluorophenyl)piperidine are not included in item 3 of Schedule I and are not controlled substances.

March 15, 2007