Drug Status Report

Drug: 4-Phenylpiperidine

Drug Name Status: 4-Phenylpiperidine is the chemical name

Chemical Name: 4-Phenylpiperidine

Chemical structure:

. Molecular Formula: $C_{11}H_{15}N$

Pharmacological class / Application: fine chemical

International status:

US: 4-Phenylpiperidine is not currently listed explicitly on the schedules to the US Controlled Substances Act and is 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 analysesic 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.

Recommendation: 4-Phenylpiperidine is not included in item 3 of Schedule I and is not a controlled substance.

August 8, 2007