

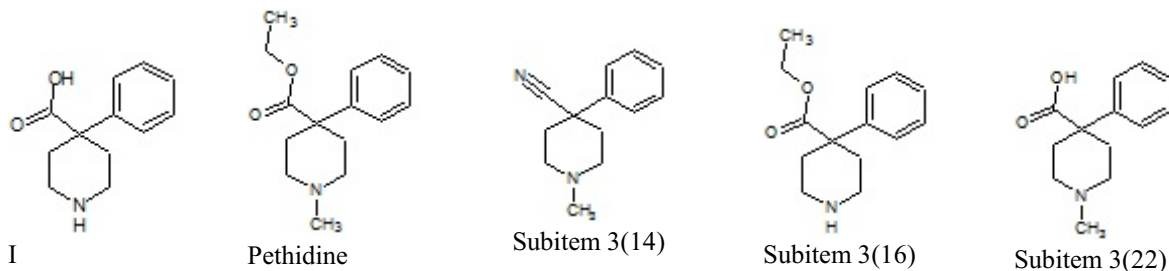
## Drug Status Report

**Drug:** 4-Phenyl-4-piperidinecarboxylic acid (I)

**Drug Name Status:** 4-Phenyl-4-piperidinecarboxylic acid is the common name

**Chemical Name:** 4-Phenylpiperidine-4-carboxylic acid

**Chemical structure:**



**Molecular Formula:**  $C_8H_{15}NO_2$

**Pharmacological class / Application:** fine chemical (pethidine related)

**International status:**

US: The substance is not currently listed on the schedules to the US Controlled Substances Act and is not mentioned on the DEA website. However, as meperidine (pethidine) is listed on Schedule II to the CSA, 4-phenyl-4-piperidinecarboxylic acid may be controlled by the CSA under the analogue provision, "...controlled substance analogue means a substance - the chemical structure of which is substantially similar to the chemical structure of a controlled substance in schedule I or II".

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: Item 13 of Part I of Schedule VI to the CDSA is, "Piperidine and its salts". Piperidine-4-carboxylic acid ethyl ester is not a salt of piperidine and is not included in Part I of Schedule VI.

Item 3 of Schedule I to the CDSA is, "Phenylpiperidines, their intermediates, salts, derivatives and analogues and salts of intermediates, derivatives and analogues". Pethidine is subitem 17.

The following related substances are also listed in item 3:  
subitem 14 - methylphenylisonipecotonitrile (4-Cyano-1-methyl-4-phenylpiperidine)

subitem 16 - norpethidine (Ethyl 4-phenylpiperidine-4-carboxylate)

subitem 22 - pethidine intermediate C (1-Methyl-4-phenylpiperidine-4-carboxylate).

The structures of pethidine and the other related substances listed in item 3 are shown above.

Analogue is defined in the CDSA as, “a substance that, in relation to a controlled substance, has a substantially similar chemical structure”. In comparing the structure of 4-phenyl-4-piperidinecarboxylic acid to the other items listed in item 3 shown above, 4-phenyl-4-piperidinecarboxylic is clearly substantially similar to all, but most closely resembles subitem 3(22) - pethidine intermediate C.

Recommendation: 4-Phenyl-4-piperidinecarboxylic is included in item 3 of Schedule I to the CDSA and is a controlled substance. The 4-methylbenzenesulfonate salt of 4-phenyl-4-piperidinecarboxylic is also included in item 3 of Schedule I.

March 20, 2009