Drug Status Report

**Drug:** Phenobarbital related substances

2,4-Dimino-6-one phenobarbital (I)
4-Imino-2,6-diketo phenobarbital (II)
Methyl ethyl phenyl cyanoacetate (III)

**Drug Name Status:** The above names are common names.

**Chemical Name:** (I) 5-Ethyl-5-phenyl-2,4-diamino-(5H)-pyrimidine-6-one
(II) 5-Ethyl-5-phenyl-4-diamino-(5H)-pyrimidine-2,6-dione
(III) Methyl 2-cyano-2-phenyl-butanoate

**Chemical structure:**

![Chemical structure images for (I), (II), and (III)]

**Molecular Formula:** (I) $\text{C}_{12}\text{H}_{14}\text{N}_{4}\text{O}$
(II) $\text{C}_{12}\text{H}_{13}\text{N}_{3}\text{O}_{2}$
(III) $\text{C}_{12}\text{H}_{13}\text{NO}_{2}$

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

**International status:**

US: The substances are not listed on the schedules to the CSA 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: None of substances I to III is not listed on the schedules to the CDSA. They are structurally similar to phenobarbital. Chemically, they are not barbiturates. Substances I to III are precursors in the synthesis of phenobarbital according to the scheme below.

Recommendation: 2,4-Dimino-6-one phenobarbital (I), 4-imino-2,6-diketo phenobarbital (II) and methyl ethyl phenyl cyanoacetate (III) are not included in the schedules to the CDSA and are not controlled substances.

February 5, 2009