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-butan-2-one

**Chemical structure**:

![Chemical structures](image)

**Molecular Formula**: (I) C_{12}H_{14}N_{4}O
(II) C_{12}H_{13}N_{3}O_{2}
(III) C_{12}H_{13}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...
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