

## Drug Status Report

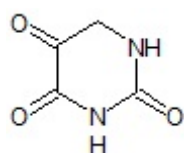
**Drug:** 5-Hydroxyuracil

**Drug Name Status:** 5-Hydroxyuracil is the common name.

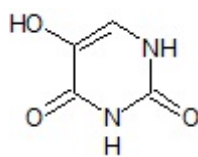
**Chemical Name:** Dihydropyrimidine-2,4,5(3H)-trione

**Other Names:** Isobarbituric acid

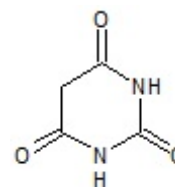
**Chemical structure:**



5-hydroxyuracil



5-hydroxyuracil



barbituric acid

5-Hydroxyuracil has two possible conformers (tautomers).

**Molecular Formula:** C<sub>4</sub>H<sub>4</sub>N<sub>2</sub>O<sub>3</sub>

**Pharmacological class / Application:** biochemical

**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.

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 1 of Schedule IV is, "Barbiturates, their salts and derivatives". All of the barbiturates listed in this item of Schedule IV have the orientation of the "keto" groups at the 2,4 and 6 positions of the ring as shown in the structure of barbituric acid above. The Other Name for 5-hydroxyuracil, isobarbituric acid, is misleading in implying that the substance is a barbiturate. "Iso" is often used in nomenclature to indicate a change in position or orientation of a substituent. In this case, the term iso indicates a change in position of one of the oxygen atoms.

Recommendation: 5-Hydroxyuracil is not included in item 1 of Schedule IV to the CDSA and is not a controlled substance.

December 13, 2007