

## Drug Status Report

**Drug:** Benzylidene barbituric acids

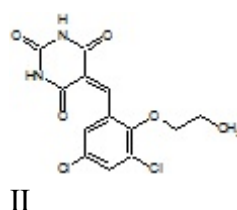
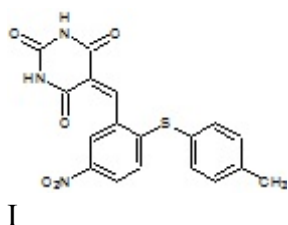
**Drug Name Status:** Benzylidene barbituric acids is the common name

A client requested the status for two substances, I and II.

**Chemical Name:** (I) 5-(5-Nitro-2-p-tolylsulfanyl-benzylidene)-pyrimidine-2,4,6-trione

(II) 5-(3,5-Dichloro-2-propoxy-benzylidene)-pyrimidine-2,4,6-trione

**Chemical structure:**



**Molecular Formula:** (I)  $C_{18}H_{13}N_3O_5S$

(II)  $C_{14}H_{12}Cl_2N_2O_4$

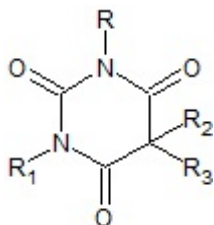
**Pharmacological class / Application:** (I) and (II) are barbiturates

**International status:**

US: The chemicals are not currently listed on the US Controlled Substances Act and are not mentioned on the DEA website. However, barbituric acid derivatives are included in Schedule III to the CSA which would include (I) and (II).

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control. The drug is not listed on the Green List - List of Psychotropic Substances under International Control.

Canadian Status: The two substance are currently not listed specifically on the CDSA. Item 1 of Schedule IV to the CDSA is, "Barbiturates, their salts and derivatives." The barbiturates listed in item 1 contain the following characteristic root structure:



Where  $R_1$ ,  $R_2$ ,  $R_3$ , and  $R_4$  are various chemical constituents that differentiate the barbiturates. When  $R_1$ ,  $R_2$ ,  $R_3$ , and  $R_4$  all equal H, the substance at the left is barbituric acid.

From the structures of (I) and (II) above, it is clear that they are members of the barbiturate family.

Recommendation: The two benzylidene barbituric acids 5-(5-Nitro-2-p-tolylsulfanyl-benzylidene)-pyrimidine-2,4,6-trione (I) and 5-(3,5-Dichloro-2-propoxy-benzylidene)-pyrimidine-2,4,6-trione (II) are included in item 1 of Schedule IV to the CDSA and are controlled substances.

March 28, 2008