STATUS DECISION OF CONTROLLED
AND NON-CONTROLLED SUBSTANCE(S)

Substance:  Thiobutabarbital

Based on the current information available to the Office of Controlled Substances, it appears that the above substance is:

Controlled  X
Not Controlled  □

under the schedules of the Controlled Drugs and Substances Act (CDSA) for the following reason(s):

• Under item 2, Schedule IV to the CDSA several thiobarbiturates are explicitly listed.
• The members of the two groups are most frequently differentiated by differences in the substituents in the molecule at R and R1 although the ring nitrogens may also carry substituents.
• Thiobutabarbital is a thiobarbiturate

Supporting document(s) attached:

Prepared by: ____________________________  Date: __________
SHEREEN KHAN

Verified by: ____________________________  Date: _________
__ See email  MICHAEL LEBELLE

Approved by: ____________________________  Date: _________
DIRECTOR, OFFICE OF
CONTROLLED SUBSTANCES
Drug Status Report

**Drug:** Thiobutabarbital

**Drug Name Status:** Thiobutabarbital is a common name

**Chemical Name:**
5-Ethylidihydro-5-(1-methylpropyl)-2-thioxo-4,6(1H,5H)-pyrimidinedione

**Other Names:** 5-(sec-Butyl)-5-ethyldihydro-2-thioxopyrimidine-4,6(1H,5H)-dione; 5-sec-butyl-5-ethyl-2-thio-barbituric acid

**Chemical structure:**

![Chemical structure of Thiobutabarbital](image)

**Molecular Formula:** \( C_{10}H_{16}N_2O_2S \)

**Pharmacological class / Application:** anaesthetic

**International status:**

US: The drug is not included specifically in the Schedules to the CSA. It is not mentioned on the DEA website. However, Schedule III to the CSA contains the following item:

“(b) Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a depressant effect on the central nervous system:
(1) Any substance which contains any quantity of a derivative of barbituric acid, or any salt of a derivative of barbituric acid.”

Thiobutabarbital is likely considered a controlled substance under the CSA due to this item.

United Nations: Several barbiturates are listed on Schedules II, III and IV to the 1971 Convention. Thiobarbiturates are not listed.

Canadian Status: Item 2 of Schedule IV to the CDSA is “Thiobarbiturates, their
salts and derivatives.” Several thiobarbiturates are explicitly listed. The core structures of barbiturates and thiobarbiturates are shown on the next page. The members of the two groups are most frequently differentiated by differences in the substituents in the molecule at R and R₁, although the ring nitrogens may also carry substituents.

Thiobutabarbital is a thiobarbiturate.

Recommendation:
Thiobutabarbital is included in item 2 of Schedule IV to the CDSA and is a controlled substance.

February 6, 2006