



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

Substances: 5beta-androstan-17alpha-methyl-17beta-ol-3-one and
5beta-androstan-17beta-ol-3-one

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

Controlled X
Not Controlled □

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

- The drug is currently not listed specifically on the CDSA.
- Methyltestosterone is listed as subitem 23 (25) of Schedule IV to the CDSA. Gabbard and Segaloff¹ reported the direct conversion of 17-methyltestosterone to 5beta-androstan-17alpha-methyl-17beta-ol-3-one (I) by alkaline catalytic hydrogenation. They also reported the direct conversion of testosterone subitem 23(40) of Schedule IV to 5beta-androstan-17beta-ol-3-one (II).
- Substance II is the 5 isomer of 17β-hydroxy-5α-androstan-3-one or stanolone which is listed on the list of controlled substances.
- As derivatives of two anabolic steroids, 5beta-androstan-17alpha-methyl-17beta-ol-3-one (I) and 5beta-androstan-17beta-ol-3-one (II) are included in item 23 of Schedule IV to the CDSA.

Supporting document(s) attached: X

Prepared by: _____ Date: 2005-08-11
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Approved by: _____ Date: _____
DIRECTOR, OFFICE OF
CONTROLLED SUBSTANCES

¹ Gabbard, RB and Segaloff, A, J. Organic Chemistry, 27, 655-656 (1961)

Drug Status Report

Drug: 5beta-Androstan-17alpha-methyl-17beta-ol-3-one (I)
5beta-Androstan-17beta-ol-3-one (II)

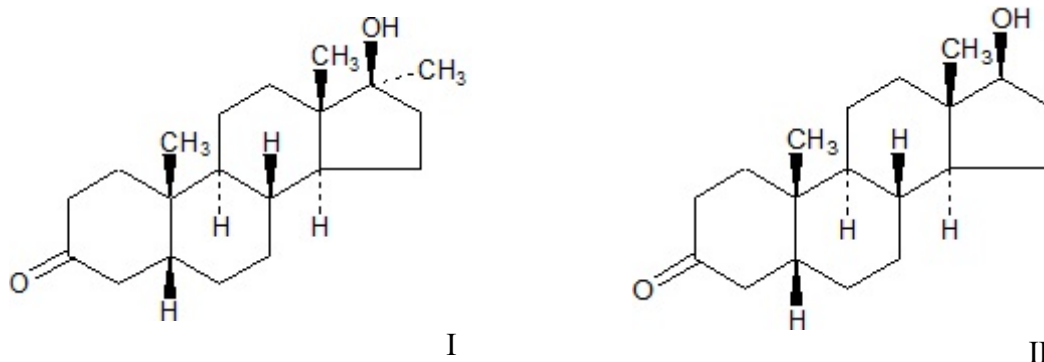
The status request for this report specified only 5beta-androstan-17alpha-methyl-17beta-ol-3-one (I). In the course of reviewing information on this substance incidental information on (II) was found indicating it should have the same status of (I).

Drug Name Status: 5beta-Androstan-17alpha-methyl-17beta-ol-3-one and 5beta-androstan-17beta-ol-3-one are chemical names.

Chemical Name: I: (5β,17β)-17-hydroxy-17-methylandrostan-3-one
II: (5β,17β)-17-hydroxyandrostan-3-one

Other Names: I: Dihydromethyltestosterone
II: Dihydrotestosterone; 5β-stanolone

Chemical structure:



Molecular Formula: I: $C_{20}H_{32}O_2$; II: $C_{19}H_{30}O_2$

Pharmacological class / Application: steroid

International status:

US: The drug is not currently listed on the US Controlled Substances Act and is not mentioned on the DEA website.

United Nations: The drug 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 drug is currently not listed specifically on the CDSA.

Methyltestosterone is listed as subitem 23 (25) of Schedule IV to the CDSA. Gabbard and Segaloff² reported the direct conversion of 17-methyltestosterone to 5beta-androstan-17alpha-methyl-17beta-ol-3-one (I) by alkaline catalytic hydrogenation. They also reported the direct conversion of testosterone subitem 23(40) of Schedule IV to 5beta-androstan-17beta-ol-3-one (II). Substance II is the 5 isomer of 17β-hydroxy-5α-androstan-3-one or stanolone which is listed on the list of controlled substances. As derivatives of two anabolic steroids, 5beta-androstan-17alpha-methyl- 17beta-ol-3-one (I) and 5beta-androstan-17beta-ol-3-one (II) are included in item 23 of Schedule IV to the CDSA.

Recommendation: 5beta-Androstan-17alpha-methyl-17beta-ol-3-one (I) and 5beta-Androstan-17beta-ol-3-one (II) are included in item 23 of Schedule IV to the CDSA and are controlled substances.

August 10, 2005

² Gabbard, RB and Segaloff, A, J. Organic Chemistry, 27, 655-656 (1961)