Health Canada
Santé Canada

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

Substance: Androst-2-en-17-one

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):

- The substance is a metabolite of the anabolic steroid 4-androstenedione and must be included under item 23 of Schedule IV to the CDSA.

Prepared by: _____ Date: _____
Evelyn C Soo

Verified by: _____ Date: _____
Mark Kozlowski

Approved by: _____ Date: _____
DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES

This status was requested by: Idralyn Alarcon, CBSA

Drug Status Report

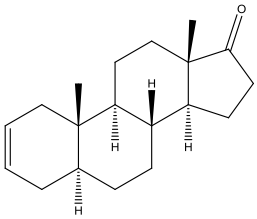
Drug: Androst-2-en-17-one

Drug Name Status: Androst-2-en-17-one is the common name.

Chemical Name: 5alpha-Androst-2-en-17-one

Other Names: delta-2-Androst-17-one

Chemical structure:



Molecular Formula: $C_{19}H_{28}O$

Pharmacological class / Application: Steroid

CAS-RN: 963-75-7

International status:

US: Androst-2-en-17-one is not listed specifically in the Schedules to the US *Controlled Substances Act* and is not mentioned anywhere on the DEA website.

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control, the Green List - List of Psychotropic Substances under International Control, nor the Red List - List of Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances under International Control.

Canadian Status: Androst-2-en-17-one is not listed specifically in the CDSA. The substance has been shown to be a metabolite of the anabolic steroid 4-androstenedione and a degradation product of androsterone and epiandrosterone[1], all of which are included under item 23 of Schedule IV to the CDSA under the heading "Anabolic steroids and their derivatives". As a derivative of an anabolic steroid, androst-2-en-17-one must be included under item 23 of Schedule IV to the CDSA.

Recommendation: Androst-2-en-17-one is included in item 23 of Schedule IV to the CDSA and is a controlled substance.

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[1] Anizan, S. et al. (2012) Gas chromatography coupled to mass spectrometry-based metabolomic to screen for anabolic practices in cattle: identification of 5a-androst-2-en-17-one as new biomarker of 4-androstenedione misuse, J. Mass Spectrometr. **47**:131-140.

Date: April 10th, 2012.