Health Canada
Santé Canada

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

Substance: Androsta-4,9(11)-diene-3,17-dione

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

Controlled	☐
Not Controlled	X

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

- The substance is not an anabolic steroid nor derived from an anabolic steroid and therefore is not included under item 23 of Schedule IV to the CDSA.

Prepared by: _____ Date: _____
Vincent Marleau

Verified by: _____ Date: _____
Mark Kozlowski

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

This status was requested by: Martin Mclean, OCS

Drug Status Report

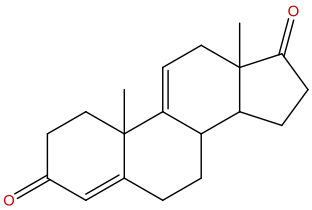
Drug: Androsta-4,9(11)-diene-3,17-dione

Drug Name Status: Androsta-4,9(11)-diene-3,17-dione is the common name.

Chemical Name: 10,13-dimethyl-7,8,10,12,13,14,15,16-octahydro-1H-cyclopenta[a]phenanthrene-3,17(2H,6H)-dione

Other Names: 9(11)-Dehydroandrostenedione; NSC 44826.

Chemical structure:



Molecular Formula: $C_{19}H_{24}O_2$

Pharmacological class / Application: Steroid

CAS-RN: 1035-69-4

International status:

US: Androsta-4,9(11)-diene-3,17-dione 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: Androsta-4,9(11)-diene-3,17-dione is not listed specifically in the CDSA. The substance is prepared from 9a-hydroxyandrost-4-ene-3,17-dione and has been reported in the scientific literature to be used as a starting material in the synthesis of corticosteroids.[1] There are currently no reports in the scientific literature that androsta-4,9(11)-diene-3,17-dione displays any anabolic activity or derived from an anabolic steroid and therefore, the substance cannot be captured under the heading "Anabolic steroids and their derivatives including" of item 23 of Schedule IV to the CDSA.

Recommendation: Androsta-4,9(11)-diene-3,17-dione is not included under the Schedules to the CDSA and is not a controlled substance.

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[1] Nitta, I. *et al*. (1985). The Sytheses of the Corticoid Side Chain. I. An Improved Method for the Preparation of 17a-Hydroxyprogesterone from Androst-4-ene-3,17-dione. The Chemical Society of Japan. **58(3)** : 978-980.

Date: October 5th, 2012.