



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

Substance: Dienolone

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

Controlled [checked]
Not Controlled [unchecked]

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

- The substance is a metabolite of estra-4,9-diene-3,17-dione and is controlled under Item 23 of Schedule IV to the CDSA.

Prepared by: Zack Li Date: August 11, 2011

Verified by: Mark Kozlowski Date:

Approved by: DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES Date:

This status was requested by: Cathy Copeland, CBSA

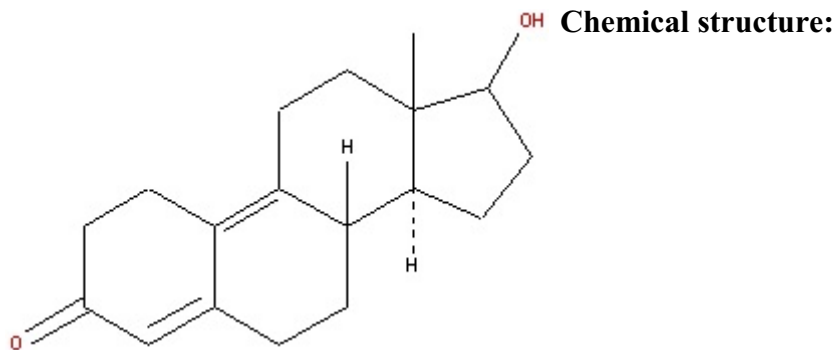
Drug Status Report

Drug: Dienolone

Drug Name Status: Dienolone is the common name.

Chemical Name: 17-hydroxy-estra-4,9-dien-3-one

Other Names: 9(10)-dehydronandrolone



Molecular Formula: $C_{18}H_{24}O_2$

CAS RN: 6218-29-7

Pharmacological class / Application: Anabolic steroids and derivatives

International status:

US: Dienolone is not listed on 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: Dienolone is the major metabolite of estra-4,9-diene-3,17-dione, a designer steroid used in sports doping¹. A secondary review of estra-4,9-diene-3,17-dione was recently conducted based on new reports of the anabolic activity of the steroid and the substance was considered included under Item 23 of Schedule IV to the CDSA under the heading “Anabolic steroids and their derivatives”. As a metabolite of estra-4,9-diene-3,17-dione, dienolone is captured under item 23 of Schedule IV to the CDSA as a metabolite of estra-4,9-diene-3,17-dione and is considered a controlled substance.

Recommendation: Dienolone is included under Item 23 of Schedule IV to the CDSA and is a controlled substance.

Date: August 11, 2011

¹Scarth. J.P., et al (2010). Comparative in vitro metabolism of the ‘designer’ steroid estra-4,9-diene-3,17-dione between the equine, canine and human: Identification of target metabolites for use in sports doping control. *Steroids* **75**:643-652