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

Substance: Estra-4,9-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  □

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

- The substance is an anabolic steroid and is controlled under Item 23 of Schedule IV to the CDSA.

Prepared by: ________________________________ Date: August 10, 2011

Zack Li

Verified by: ________________________________ Date: __________

Mark Kozlowski

Approved by: ________________________________ Date: __________

DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES

This status was requested by: Cathy Copeland, CBSA
Drug Status Report

**Drug**: Estra-4,9-diene-3,17-dione

**Drug Name Status**: Estra-4,9-diene-3,17-dione is the common name.

**Chemical Name**: 19-Norandrosta-4,9-diene-3,17-dione

**Other Names**: Tren

**Chemical structure:**

![Chemical structure diagram]

**Molecular Formula**: $C_{18}H_{22}O_2$

**CAS RN**: 5173-46-6

**Pharmacological class / Application**: Anabolic steroids and derivatives

**International status**:

US: Estra-4,9-diene-3,17-dione was recently added to Schedule III to the US Controlled Substances Act\(^1\).

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: Estra-4,9-diene-3,17-dione was previously reviewed in 2007 and was determined to be not controlled under the CDSA. However, recent evidence suggests that estra-4,9-diene-3,17-dione is a steroid with anabolic activity similar to that of testosterone and the substance was subsequently added to Schedule III to the US Controlled Substances Act. As a steroid that demonstrates anabolic activity, estra-4,9-diene-3,17-dione is included under the heading “Anabolic steroids and their derivatives” of Item 23 of Schedule IV to the CDSA.

**Recommendation:** Estra-4,9-diene-3,17-dione is included under Item 23 of Schedule IV to the CDSA and is a controlled substance.

**Date:** August 10, 2011

---