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

Substance: 2-Hydroxyestradiol

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 has not been shown in the scientific literature to display anabolic activity, and is not included under item 23 of Schedule IV to the CDSA.

Prepared by: ________________________________ Date: August 17th 2011
Vincent Marleau

Verified by: ________________________________ Date: __________
Mark Kozlowski

Approved by: ________________________________ Date: __________
DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES

This status was requested by: Eva Roig
Drug Status Report

**Drug:** 2-Hydroxyestradiol

**Drug Name Status:** 2-Hydroxyestradiol is the common name.

**Chemical Name:** Estra-1,3,5(10)-triene-2,3,17-beta-triol

**Other Names:** Estra-1,3,5(10)-triene-2,3,17-beta-triol; 2-Hydroxyestradiol; 2-OH-E2; 2-OH-Estradiol.

**Chemical structure:**

![Chemical structure of 2-Hydroxyestradiol](image)

**Molecular Formula:** $C_{18}H_{24}O_{3}$

**Pharmacological class / Application:** Steroid

**CAS-RN:** 362-05-0

**International status:**

US: 2-Hydroxyestradiol 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: 2-Hydroxyestradiol is not specifically listed in the CDSA. The substance has been reported in the literature to be a derivative of 17beta-estradiol and is a known
carcinogenic metabolite of the 17beta-estradiol. However, 2-hydroxyestradiol has not been reported to display any anabolic activity and is not a derivative of an anabolic steroid. Therefore, the substance cannot be included under the heading “Anabolic steroids and their derivatives:” of item 23 of Schedule IV to the CDSA.

**Recommendation:** 2-Hydroxyestradiol is not included under the items the Schedules to the CDSA and is not a controlled substance.

**Date:** 17 August 2011

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