Substance: Gamma Oryzanol

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 substances are not similar to any of the substances listed in the CDSA.

Prepared by: ____________________________ Date: Aug 23th 2010
Evelyn Soo

Verified by: ____________________________ Date: __________
Marianne Tang

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

This status was requested by: Saumea Thayalan of the Inspectorate - presence in a nutritional supplement.
Drug Status Report

**Drug:** Gamma Oryzanol

**Drug Name Status:** Gamma Oryzanol is the common name.

**Chemical Name:** 9,19-Cyclo-9-beta-lanost-24-en-3beta-ol 4-hydroxy-3-methoxycinamate

**Chemical Structure:**

![Chemical Structure Image]

**Molecular Formula:** C_{40}H_{58}O_{4}

**Pharmacological class / Application:** Phytosterol

**CAS-RN:** 11042-64-1

**International status:**

US: The substance is not listed specifically in the CSA 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 nor the Green List - List of Psychotropic Substances under International Control.

Canadian Status: Gamma oryzanol is a phytosterol ferulate mixture that is obtained from rice bran oil and has been shown in the scientific literature to have antioxidant properties\(^1\). The substance is claimed to be an ingredient in a dietary supplement known as “Body Builder\(^{TM}\)”, which is marketed for horses, dogs as well as humans, and available over the internet at [http://www.equiade.com/](http://www.equiade.com/), but there is no evidence in the literature that gamma oryzanol displays any anabolic activity.

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\(^1\)Ismail, M. *et al.* (2010) Gamma-oryzanol rich fraction regulates the expression of antioxidant and oxidative stress related genes in stressed rat’s liver, Nutr. Metabolism, 7: Art No 23.
Gamma oryzanol is not listed specifically in the CDSA and is not structurally similar to any of the substances listed in the Schedules to the CDSA.

**Recommendation:** Gamma oryzanol is not similar to any of the substances included in the Schedules to the CDSA and is not a controlled substance.

**Date:** 23 August 2010