Substance: Andarine

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 a selectie androgen receptor modulator that exhibits anabolic and androgenic activity but cannot be included under item 23 of Schedule IV to the CDSA as it is not a steroid nor a derivative of an anabolic steroid.

Prepared by: _______________________________  Date: Feb 2nd 2011
Evelyn Soo

Verified by: _______________________________  Date: ____________
Marianne Tang

Approved by: _______________________________  Date: ____________
DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES

This status was requested by: Inspectorate
Drug Status Report

Drug: Andarine

Drug Name Status: Andarine is the common name.

Chemical Name: (2S)-3-(4-acetamido-phenoxy)-2-hydroxy-2-methyl-N-(4-nitro-3-trifluoromethyl-phenyl)-propionamide.

Other Names: S-4

Chemical structure:

![Chemical structure of Andarine]

Molecular Formula: \( \text{C}_{19}\text{H}_{18}\text{O}_{6}\text{N}_{3}\text{F}_{3} \)

Pharmacological class / Application: Selective Androgen Receptor Modulator

CAS-RN: none

International status:

US: Andarine 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 specifically on the Yellow List - List of Narcotic Drugs under International Control nor the Green List - List of Psychotropic Substances under International Control.

Canadian Status: Andarine is not currently listed in the CDSA. The substance has been reported to be used for the treatment of muscle wasting, osteoporosis and benign prostatic hyperplasia and displays androgenic and anabolic activity\(^1\).\(^2\) However, since andarine is not a steroid, it


\(^3\)Gao W. et al. Comparison of the pharmacological effects of a novel selective androgen receptor modulator, the 5alpha-reductase inhibitor finasteride, and the antiandrogen hydroxyflutamide in intact rats: new approach for benign prostate hyperplasia. Endocrinol.45:5420-5428.
cannot be included under item 23 of Schedule IV to the CDSA.

**Recommendation:** Andarine is not included under item 23 of Schedule IV to the CDSA and is not a controlled substance.

**Date:** 2 February 2011