## Drug Status Report

Drug: MaxSize Male Enhancement

Drug Name Status: MaxSize Male Enhancement is the trade name.

## **Ingredients:**

The product information claims several ingredients:

Vitamin B3 (niacin) 25 mg Zinc (from amino acid chelate) Yohimbe (dried aqueous extract, bark) Maca (root) L-Arginine (dried aqueous extract) Avena sativa (dried aqueous extract) Catuba (dried aqueous extract) Panax ginseng (root) Muira Puama (dried aqueous extract) Taurine Nettles (leaf) Orchic Powder Oyster Shell Tribulus terrestris (fruit) Astragalus (root) Cnidium Monnier (dried aqueous extract) Pumpkin (seed) Sarsaparilla (root) Xanthoparmelia Scabrosa Boron (from boron chelate)

Canadian Status:

Vitamin B3 (niacin) is a common vitamin.

Zinc is a common ingredient is vitamin supplements.

Yohimbe bark extract should contain yohimbine which is listed on Part I of Schedule F to the Food and Drug Regulations (prescription drugs). It was reviewed in a product named Animal Test.

Maca or Lepidium meyenii is an herbaceous plant native to the high Andes of Bolivia and Peru. It is grown for its fleshy hypocotyl (actually a fused hypocotyl and taproot), which is used as a root vegetable and a medicinal herb<sup>1</sup>. It is purported to have several applications that include reducing anxiety and depression and sexual dysfunction in postmenopausal women<sup>2</sup>; protecting

<sup>&</sup>lt;sup>1</sup> http://en.wikipedia.org/wiki/Lepidium meyenii

<sup>&</sup>lt;sup>2</sup> Brooks NA, Wilcox G, Walker KZ, Ashton JF, Cox MB, Stojanovska L., Menopause. 2008 Sep 6.

against UV skin damage<sup>3</sup>; and increasing libido<sup>4</sup> and fertility<sup>5</sup>. The plant is known to contain a series of long-chain amides and an N-hydroxypyridine derivative<sup>6</sup> as well as imidazole alkaloids<sup>7</sup>. L-Arginine is a common amino acid.

Avena sativa is the common cereal plant known as oat.

Catuba may be confused with catuaba<sup>8</sup> which is a bark from a South American tree claimed to be an aphrodisiac.

Panax ginseng is a common nutritional supplement.

Muira Puama or potency wood is a flowering plant native to the South American rainforest; it is an ingredient in herbal medicines used for treating erectile dysfunction or lack of libido<sup>9</sup>.

Taurine Nettles probably means the product contains taurine which is 2-aminoethanesulfonic acid and stinging nettle which is known to contain 3,4-divanilytetrahydrafuran. Both these substances have been reviewed before and neither is controlled by the CDSA.

Orchic powder is desiccated animal testes and is not considered to be controlled.

Oyster shell is essentially calcium carbonate, an accepted calcium supplement.

Tribulus terrestris has been reviewed previously; it is an ingredient in several dietary supplements. One of the ingredients in the plant, Tribulus, is protodioscin. This substance "is a naturally occurring saponin present in many oriental vegetables and traditional medicinal plants, which has been associated with potent bioactivity<sup>10</sup>". It has been promoted as a male sexual enhancer. It is not structurally similar to substances currently listed on the schedules to the CDSA.

Astragalus membranaceus is purported to improve immune function. It is used in traditional

<sup>4</sup> http://en.wikipedia.org/wiki/Lepidium meyenii

<sup>5</sup> <u>http://www.rain-tree.com/maca.htm</u>

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<sup>6</sup> Zhao J, Muhammad I, Dunbar DC, Mustafa J, Khan IA, J Agric Food Chem. 2005 Feb 9;53(3):690-3.

<sup>7</sup> Cui B, Zheng BL, He K, Zheng QY., J Nat Prod. 2003 Aug;66(8):1101-3.

<sup>8</sup> <u>http://www.guide2maleenhancement.com/Catuaba\_Bark\_Extract.php</u> and Daolio C, Beltrame FL, Ferreira AG, Cass QB, Cortez DA, Ferreira MM., 1: Phytochem Anal. 2008 May;19(3):218-28.

http://www.pdrhealth.com/drugs/altmed/altmed-mono.aspx?contentFileName=ame0324.xml&contentName=Potency+Wood&contentId=481

<sup>10</sup> Wang T, Liu Z, Li J, Zhong M, Li J, Chen X, Bi K, J Chromatogr B Analyt Technol Biomed Life Sci. 2007 Apr 1;848(2):363-8.

<sup>&</sup>lt;sup>3</sup> Gonzales-Castañeda C, Gonzales GF., 1: Photodermatol Photoimmunol Photomed. 2008 Feb;24(1):24-31.

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Chinese medicines<sup>11</sup>.

Cnidium Monnier comes from the plant Cnidium monnieri, a plant which grows in China, and whose seeds are used in a variety of applications in classical Chinese medicine. In fact, Cnidium seeds are found in bulk in many Chinese pharmacies and health food stores. Traditional uses have included its use for various skin conditions, and also as a natural libido booster for men<sup>12</sup>. Pumpkin seed is a common food.

Sarsaparilla (Smilax regelii) has been reviewed previously. It is a plant grown in many countries. It has a long history of herbal use.

Xanthoparmelia scabrosa is a lichen found throughout the world including China, Hong Kong, Australia, and South America. It has been promoted as an aphrodisiac. It has been included in some US supplements since at least 2003<sup>13</sup>.

Boron (from boron chelate)

Recommendation: The ingredients in MaxSize Male Enhancement are not included in the schedules CDSA; MaxSize Male Enhancement is not a controlled substance.

October 30, 2008

<sup>&</sup>lt;sup>11</sup> <u>http://nccam.nih.gov/health/astragalus/</u>

<sup>&</sup>lt;sup>12</sup> <u>http://www.viable-herbal.com/herbdesc5/1cnidium.htm</u>

<sup>13</sup> http://www.fda.gov/bbs/topics/enforce/2004/ENF00831.html