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

Substance: Testek

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 17th 2010
Evelyn Soo

Verified by: ___________________________ Date: __________
Marianne Tang

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

This status was requested by: Shawna St-Phar on behalf of the CBSA
Drug Status Report

**Drug**: Testek

**Drug Name Status**: Testek is a brand name.

**Canadian Status**: Testek is a dietary supplement that is marketed as a testosterone booster for body building purposes. The following substances are claimed to be the active ingredients of the product:

*MyoBlast - Testisteribe & Anabolic Growth Optimizer:*
- SerinAid Phosphatidylserine
- AlphaSize Alpha-Glyceryl Phosphoryl Choline
- N-acetyl-5-methoxytryptamine
- Nicotinoyl-GABAm-Pycamilon

*EstoFlavin- Anti-Aromatase/DHT Complex*
- Hesperidin Flavanone Glycoside
- Phytosterol Complex (b-sitosterol, campesterol, stigmasterol, brassicasterol, stigmastanol and tocopherols
- Lemon Balm Extract
- Lycopene

SerinAid® Phosphatidylserine is a phospholipid that is claimed to be derived from soy lecithin\(^1\) and be effective in improving cognition.

![Chemical Structure of Phosphatidylserine](http://www.innovadex.com/Food/Detail/4327/120589/SERINAID)

**Chemical Name**: 1,2-Distearoyl phosphatidyl serine

**Synonyms**: 1,2-Distearoyl-en-3-glycerolphosphoserine

Diasteroylphosphatidylserine; 4-(pyridine-3-carbonylamino)butanoic acid

**CAS-RN**: 51446-62-9

**Molecular Formula**: C\(_{13}\)H\(_{24}\)NO\(_{10}\)P

Alpha-Glyceryl Phosphoryl Choline is a phospholipid and has been shown in the scientific literature to be effective in treating memory loss and slowing down the structural changes in

\(^1\)http://www.innovadex.com/Food/Detail/4327/120589/SERINAID
Chemical Name: Choline glycerophosphate
Synonyms: Choline alfoscerate is the proper INN name; (R)-2,3-dihydroxypropyl hydrogen phosphate, choline hydroxide
CAS-RN: 28319-77-0
Molecular Formula: C₈H₂₀NO₆P

The status of *N-acetyl-5-methoxytryptamine* has been previously reviewed and was considered not controlled under the CDSA.

**Nicotinoyl-GABA**-**Am-Pycamilon** is commonly known as picamilon, is a dietary supplement that is used for the treatment of anxiety⁴.

Chemical Name: 4-((3-pyridinylcarbonyl)amino)-butanoic acid, monosodium salt
Synonyms: Nicotinoyl-GABA sodium salt; N–Nicotinoyl-gamma-aminobutyric acid sodium salt; 4-(pyridine-3-carbonylamino)butanoic acid
CAS-RN: 62936-56-5
Molecular Formula: C₁₀H₁₁N₂O₅,Na

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**Hesperidin Flavanone Glycoside** is a flavanoid that is found in citrus fruit and believed to provide antioxidant⁵, anti-inflammatory⁶ and sedative effects⁷.

**Chemical Name:** 4H-1-benzopyran-4-one, 7-((6-Deoxy-alpha-L-mannopyranosyl)-beta-D-glucopyranosyl)oxy)-2,5-dihydro-5-hydroxy-2-(3-hydroxy-4-methoxyphenyl)-, (2S)-

**Synonyms:** 3',5'-dihydroxy-4'-methoxy-7-rutinosyloxyflavan-4-on; hesperitin-7-rhamnoglucoside

**CAS-RN:** 62936-56-5

**Molecular Formula:** C_{28}H_{34}O_{15}

Phytosterol Complex (β-sitosterol, campesterol, stigmasterol, brassicasterol, stigmastanol and tocopherols) are phytosterols that display anti-inflammatory and anti-cancer effects⁸. The substances have not been shown in the scientific literature to display any anabolic activity.

**Common Name:** β-sitosterol

**Chemical Name:** Stigmast-5-en-3-beta-ol

**Synonyms:** (24R)-ethylcholest-5-en-3-beta-ol; 22,23-dihydrostigmasterol; 24a-ethylcholesterol

**CAS-RN:** 83-64-5

**Molecular Formula:** C_{29}H_{50}O

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⁷Loscalzo, LM. et al. (2008) Opioid receptors are involved in the sedative and antinociceptive effects of hesperidin as well as in its potentiation with benzodiazepines, Eur J. Pharmacol. 580:306-313.

**Campesterol**
- **Common Name:** Campesterol
- **Chemical Name:** (24R)-Ergost-5-en-3-beta-ol
- **Synonyms:** 24-methylcholesterol; 24a-methylcholesterol; delta5-24-isoergosten-3beta-ol; Stimast-5-en-3beta-ol
- **CAS-RN:** 474-62-4
- **Molecular Formula:** $C_{28}H_{48}O$

**Stigmasterol**
- **Common Name:** Stigmasterol
- **Chemical Name:** (24R)-5,22-Stigmastadien-3-beta-ol
- **Synonyms:** Stigmasta-5,22-dien-3-beta-ol
- **CAS-RN:** 83-48-7
- **Molecular Formula:** $C_{28}H_{46}O$

**Brassicasterol**
- **Common Name:** Brassicasterol
- **Chemical Name:** Ergosta-5,22(E)-dien-3-beta-ol
- **CAS-RN:** 474-67-9
- **Molecular Formula:** $C_{29}H_{52}O$

**Stigmastanol**
- **Common Name:** Stigmastanol
- **Chemical Name:** 24a-Ethylcholestanol
- **Synonyms:** 5,6-Dihydro-b-sitosterol; (3b,5a)-stigamastan-3-ol; 5a-Stigmastan-3b-ol
- **CAS-RN:** 83-45-4
- **Molecular Formula:** $C_{29}H_{48}O$
Chemical Name: Tocopherols  
Synonyms: Methyltocols; tocopherol  
CAS-RN: 1406-66-2  
Molecular Formula: $\text{C}_{28}\text{H}_{48}\text{O}_2$

Lycopene is a phytochemical found in tomatoes and other red fruits and vegetables such as red carrots, watermelons and papaya. The substance is an intermediate in the biosynthesis of carotenoids such as beta-carotene and implicated in the prevention of prostate cancer. that has been shown to demonstrate antioxidant activity. 

Chemical Name: Lycopene  
Synonyms: CI 75125; psi,psi-carotene  
CAS-RN: 502-65-8  
Molecular Formula: $\text{C}_{40}\text{H}_{56}$

Recommendation: Testek does not contain any substances similar to those included in the Schedules to the CDSA and is not a controlled substance.

Date: 17 August 2010

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