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

Substance: Cannabidiol hydroxyquinone

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 derivative of cannabidiol and therefore must be included under item 1(3) of Schedule II to the CDSA.

Prepared by: _______________________________ Date: Dec 8th 2010

Evelyn Soo

Verified by: _______________________________ Date: __________

Marianne Tang

Approved by: _______________________________ Date: __________

DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES

This status was requested by: "third party information removed as per agreement with applicant"
Drug Status Report

**Drug:** Cannabidiol hydroxyquinone

**Drug Name Status:** HU-331 is the common name.

**Chemical Name:** 3-hydroxy-2-[(1R,6R)-3-methyl-6-(1-methylethenyl)-2-cyclohexen-1-yl]-5-pentyl-2,5-cyclohexadiene-1,4-dione

**Other Names:** (1R-trans)-3-hydroxy-2-[3-methyl-6-(1-methylethenyl)-2-cyclohexen-1-yl]-5-pentyl-2,5-cyclohexadiene-1,4-dione

**Chemical structure:**

![Chemical structure image]

**Molecular Formula:** C$_{21}$H$_{28}$O$_{3}$

**Pharmacological class/Application:** Synthetic cannabinoid

**CAS-RN:** 137252-25-6

**International status:**

US: Cannabidiol hydroxyquinone is not listed specifically in the US *Controlled Substances Act*. 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: Cannabidiol hydroxyquinone is a quinone derivative of cannabidiol and is not listed specifically in the CDSA. The substance has been reported to be synthesized directly from cannabidiol and to display potent anti-cancer activity$^1$. However, there are no reports that the substance behaves as either a cannabinoid agonist or antagonist. Cannabidiol is currently listed as item 2(3) in Schedule II to the CDSA under the heading “Cannabis, its preparations, derivatives and similar synthetic preparations”. While cannabidiol hydroxyquinone is not a cannabinoid receptor agonist, it is nonetheless a derivative of cannabidiol.

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cannabidiol and therefore is captured under item 2(3) of Schedule II to the CDSA.

**Recommendation:** Cannabidiol hydroxyquinone is included under item 1(3) of Schedule II to the CDSA and is a controlled substance.

**Date:** 8 December 2010