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

Substance:  
I - 2,3-Methylenedioxymethamphetamine  
II - 3,4-Dihydroxymethamphetamine  
III - 3-Fluoromethamphetamine

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 amphetamines and captured under item I of Schedule III to the 
  CDSA. In the case of 3-fluoromethamphetamine, the substance could also be 
captured under 18 of Schedule I to the CDSA.

Prepared by: ___________________________ Date: Dec 10th 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:**
- I - 2,3-Methylenedioxymethamphetamine
- II - 3,4-Dihydroxymethamphetamine
- III - 3-Fluoromethamphetamine

**Drug Name Status:**
- I - 2,3-Methylenedioxymethamphetamine
- II - 3,4-Dihydroxymethamphetamine
- III - 3-Fluoromethamphetamine are the common names.

**Chemical Name:**
- I - N-alpha-Dimethyl-1,3-benzodioxole-4-ethanamine
- II - 4-[2-(Methylamino)propyl]-1,2-benzenediol
- III - 3-Fluoro-N.a-dimethylbenzeneethanamine

**Chemical Structure:**

![Chemical Structures](Image)

**Molecular Formula:**
- I - $C_{11}H_{16}ClNO_2$
- II - $C_{10}H_{16}ClNO_2$
- III - $C_{10}H_{14}FN$

**CAS-RN:**
- I - 168968-01-2
- II - 438625-60-6
- III - 1182818-14-9

**Pharmacological class / Application:**  Amphetamine-related

**International status:**

**US:** 2,3-Methylenedioxymethamphetamine, 3,4-Dihydroxymethamphetamine and 3-fluoromethamphetamine are not currently listed in the Schedules to the US Controlled Substances Act. However, they may be considered controlled due to the “controlled substances analogue” provision of the CSA.

**United Nations:** The substances are not listed on the Yellow List - List of Narcotic Drugs under International Control, the Green List - List of Psychotropic Substances under International Control, nor the Red List - List of Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control.
Canadian Status: 2,3-Methylenedioxymethamphetamine, 3,4-dihydroxymethamphetamine and 3-fluoromethamphetamine are not currently listed in the CDSA. The substances are all considered to be amphetamines; specifically 2,3-methylenedioxymethamphetamine is an positional isomer of N–methyl–3,4–methylenedioxyamphetamine (MDMA)\(^1\) while 3-fluoromethamphetamine is a structural analogue of methamphetamine where for the purpose of forming status decisions, an analogue is considered to be a substance of significant structural similarity to one included in the Schedules to the CDSA. With regard to 3,4-dihydroxymethamphetamine, the substance has been reported in the scientific literature to be major metabolite of MDMA\(^2\).

“Amphetamines, their salts, derivatives, isomers and analogues of salts of derivatives, isomers and analogues” are controlled under item 1 of Schedule III to the CDSA. Considering that 2,3-methylenedioxymethamphetamine is an isomer of MDMA and 3,4-dihydroxymethamphetamine is a metabolite of MDMA, both substances are considered captured under item 1(9) of Schedule III as an isomer or derivative of MDMA, respectively. In the case of 3-fluoromethamphetamine, the substance is amphetamine and therefore would be included under item 1 of Schedule III to the CDSA. However, as an analogue of methamphetamine, 3-fluoromethamphetamine could also be considered to fall under the heading “Methamphetamine (N,\(\alpha\)-dimethylbenzeneethanamine), its salts, derivatives, isomers and analogues and salts of derivatives, isomers and analogues” of item 18 of Schedule I to the CDSA.

**Recommendation:** 2,3-Methylenedioxymethamphetamine, 3,4-dihydroxymethamphetamine and 3-fluoromethamphetamine are included under item 1of Schedule III to the CDSA and are controlled substances. 3-fluoromethamphetamine may also be considered controlled under item 18 of Schedule I to the CDSA.

**Date:** 10 December 2010

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