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

Substance: Designer “Fly” Compounds

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 compounds listed in Table 1 cannot be considered analogues of amphetamine and cannot be included under any of the Schedules to the CDSA.

Prepared by: ___________________________ Date: September 14, 2011

Evelyn Soo

Verified by: ___________________________ Date: __________

Mark Kozlowski

Approved by: ___________________________ Date: __________

DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES

This status was requested by:
Drug Status Report

**Drug:** Designer “Fly” Compounds. See Table 1 for chemical information.

**Pharmacological class / Application:** Stimulants

**International status:**

US: None of the substances listed in Table 1 are included in the Schedules to the US *Controlled Substances Act*.

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: The “FLY” compounds listed in Table 1 belong to a family of designer drugs described in the book PiHKAL by Alexander Shulgin and experimented for their potential stimulant/hallucinogenic properties. While the “FLY” compounds display some structural characteristics of the amphetamines, which are current listed as item 1 of Schedule III to the CDSA under the heading “Amphetamines, their salts, derivatives, isomers, analogues and salts of derivatives, isomers and analogues”, none of the amphetamines contain a benzodifuranyl structure. Therefore these substances cannot be considered to display substantial structural similarities to any of the substances listed under item 1 of Schedule III to the CDSA and considered amphetamine analogues. The substances also do not display any structural similarity to any of the other substances listed in the CDSA.

It is noteworthy that an earlier review of a related compound, bromo-benzodifuranyl-isopropylamine (Bromo-DragonFLY) also concluded that the substance could not be included in the schedules to the CDSA.

**Recommendation:** The designer FLY compounds are not included in the Schedules to the CDSA and are not controlled substances.

**Date:** 14th September, 2011
Table 1: Chemical Information for designer “FLY” compounds.

<table>
<thead>
<tr>
<th>Name of Substance</th>
<th>Chemical Name</th>
<th>Chemical Structure</th>
<th>Chemical Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOB-FLY</td>
<td>1-(8-Bromo-2,3,6,7-tetrahydrofuro[2,3-f][1]benzofuran-4-yl)propan-2-amine</td>
<td><img src="image1" alt="Chemical Structure" /></td>
<td>C13H16BrNO2</td>
</tr>
<tr>
<td>DOM-FLY</td>
<td>1-(8-Methyl-2,3,6,7-tetrahydrofuro[2,3-f][1]benzofuran-4-yl)propan-2-amine</td>
<td><img src="image2" alt="Chemical Structure" /></td>
<td>C14H19BrNO2</td>
</tr>
<tr>
<td>TFM-FLY</td>
<td>1-[8-(Trifluoromethyl)-2,3,6,7-tetrahydrofuro[2,3-f][1]benzofuran-4-yl)propan-2-amine</td>
<td><img src="image3" alt="Chemical Structure" /></td>
<td>C14H16F3NO2</td>
</tr>
<tr>
<td>DOB-DragonFLY</td>
<td>1-(8-Bromofuro[2,3-f][1]benzofuran-4-yl)propan-2-amine</td>
<td><img src="image4" alt="Chemical Structure" /></td>
<td>C13H12BrNO2</td>
</tr>
<tr>
<td>N-Methyl-DOB-FLY</td>
<td>1-(8-Bromo-2,3,6,7-tetrahydrofuro[2,3-f][1]benzofuran-4-yl)-N-methylpropan-2-amine</td>
<td><img src="image5" alt="Chemical Structure" /></td>
<td>C14H18BrNO2</td>
</tr>
<tr>
<td>N-Methyl-DOB-DragonFLY</td>
<td>1-(8-Bromofuro[2,3-f][1]benzofuran-4-yl)-N-methylpropan-2-amine</td>
<td><img src="image6" alt="Chemical Structure" /></td>
<td>C14H14BrNO2</td>
</tr>
</tbody>
</table>