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

Substance: I-AKB48
II- 5F-AKB48

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):

- It has not been established as to whether these substances are efficacious cannabinoid receptor agonists and therefore they cannot be included under item 1 of Schedule II to the CDSA.

Prepared by: ________________________________ Date: _____________

Vincent Marleau

Verified by: ________________________________ Date: _____________

Mark Kozlowski

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- AKB48  
II- 5F-AKB48

Drug Name Status:  
I- AKB48  
II- 5F-AKB48 are the common names.

Chemical Name:  
I- 1-pentyl-N-tricyclo[3.3.1.13,7]dec-1-yl-1H-indazole-3-carboxamide  
II- N-(adamanta-1-yl)-1-(5-fluoropentyl)-1H-indazole-3-carboxamide

Other Names:  
I- Apinaca; AKB-48.  
II- AKB48F; 5F-AKB48; ACBM-2201; ACBMN-2201; ACBM(N)-2201; 1-(5-fluoropentyl)-N-tricyclo[3.3.1.13,7]dec-1-yl-1H-indazole-3-carboxamide; 1H-indazole-3-carboxamide,1-(5-fluoropentyl)-N-tricyclo[3,3,1,13,7]dec-1-yl

Chemical structure:

\[
\text{I} \\
\text{II}
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Molecular Formula:  
I- C_{23}H_{31}N_{3}O; II- C_{23}H_{30}FN_{3}O

Pharmacological class / Application:  
Synthetic cannabinoids

CAS-RN:  
I-1345973-53-6; II-N/A

International status:

US: AKB48 and 5F-AKB48 are not listed specifically in the Schedules to the US Controlled Substances Act and are not mentioned anywhere on the DEA website.

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:  
AKB48 and 5F-AKB48 are not listed in the CDSA. The substances are synthetic cannabinoids, and have been identified as illegal products in Japan.\(^1\) “Cannabis, its

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\(^1\) Uchiyama, N. et al. (2012) Identification of two new-type synthetic cannabinoids, N-(1-adamantyl)-1-pentyl-1H-indole-3-carboxamide (APICA) and N-(1-adamantyl)-1-pentyl-1H-indazole-3-carboxamide (APINACA), and detection of five synthetic cannabinoids, AM-1220, AM-2233, AM-1241, CB-13 (CRA-13), and AM-1248, as designer drugs in illegal products, Forensic Toxicology, pp1-12.
preparations, derivative and similar synthetic preparations” are listed as item 1 in Schedule II to the CDSA. However, since AKB48 and 5F-AKB48 have not been reported to display binding affinity to the CB₁ and CB₂ receptors and there are presently no reports in the scientific literature on the efficacy of AKB48 and 5F-AKB48 as cannabinoid receptor agonists, these substances cannot be included under Item 1 of Schedule II to the CDSA.

**Recommendation:** AKB48 and 5F-AKB48 are not included under Item 1 of Schedule II to the CDSA and are not controlled substances.

**Date:** August 27th, 2012.