



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

Substance: 4'-Fluorococaine

Based on the current information available to the Office of Controlled Substances, it appears that the above substance is:

Controlled [checked]
Not Controlled [unchecked]

under the schedules of the Controlled Drugs and Substances Act (CDSA) for the following reason(s):

- The substance is an analogue of cocaine and a derivative of ecgonine. It there must be included under item 2 of Schedule I to the CDSA.

Prepared by: Evelyn Soo Date: Dec 10th 2010

Verified by: Marianne Tang Date:

Approved by: DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES Date:

This status was requested by: third party information removed as per agreement with applicant

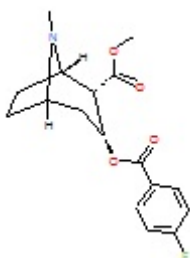
Drug Status Report

Drug: 4'-Fluorococaine

Drug Name Status: 4'-Fluorococaine is the common name.

Chemical Name: 8-Azabicyclo(3.2.1)octane-2-carboxylic acid, 3-((4-fluorobenzoyl)oxy)-8-methyl, methyl ester, (1R-(exo,exo))-

Chemical Structure:



Molecular Formula: I - $C_{17}H_{20}FNO_4$

CAS-RN: 134507-62-3

Pharmacological class / Application: Cocaine-related

International status:

US: 4'-Fluorococaine is not currently listed in the Schedules to the *US Controlled Substances Act* but the substance has been mentioned as an analytical standard on the DEA website¹ and the substance may be considered controlled due to the analogue provision of the CSA.

United Nations: The substance is 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.

¹http://www.justice.gov/dea/programs/forensicsci/microgram/journal_v6_num34/pg7.html

Canadian Status: 4'-Fluorococaine is not listed specifically in the CDSA. The substance is often used as an internal standard for the analysis of cocaine in biological fluids² and is considered to be an analogue of cocaine. Cocaine is listed under the heading "Coca (Erythroxyton), its preparations, derivatives, alkaloids and salts including" as item 2(2) in Schedule I to the CDSA. Although analogues of cocaine are not captured by the heading of item 2, it is noteworthy that the 2-step synthesis of the substance occurs *via* ecgonine methyl ester with cocaine as a starting material. Under the 1971 Convention on Psychotropic Substances, the notes relating to substances controlled under Schedule I includes "the esters and ethers, unless appearing in another Schedule, of the drugs in this Schedule, whenever the existence of such esters or ethers is possible." Therefore, while not specifically mentioned in the CDSA, the control of ecognine methyl ester as item 2(3) of Schedule I to the CDSA is implied. Given that 4'-fluorococaine is a derivative of ecognine methyl ester, the substance must also be included under item 2(3) of Schedule I to the CDSA.

Recommendation: 4'-fluorococaine is included under item 2 of Schedule I to the CDSA and is a controlled substance.

Date: 10 December 2010

²Jamdar, SC. et al. (2000) A rapid, sensitive assay for cocaine and its metabolites in biological fluids using solid-phase extraction and high-performance liquid chromatography, J. Anal. Toxicol. **24**:438-441.