Health Canada
Santé Canada

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

Substance: MAFP

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

Controlled	☐
Not Controlled	X

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

- The substance is a synthetic cannabinoid which displays antagonist activity and is not captured 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

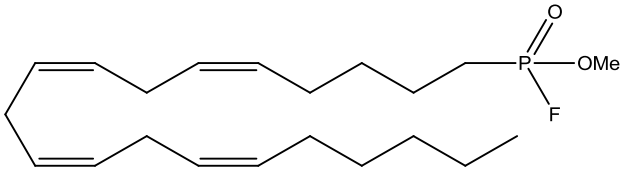
Drug: MAFP

Drug Name Status: MAFP is the common name.

Chemical Name: Methyl(5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraen-1-ylphosphonofluoridate

Other Names: Methyl arachidonyl fluorophosphonate; (5Z,8Z,11Z,14Z)-5,8,11,14-eicosatetraenyl-methyl ester phosphonofluoridic acid.

Chemical structure:



Molecular Formula: $C_{21}H_{36}FO_2P$ **CAS-RN:** 188404-10-6

Pharmacological class / Application: Synthetic cannabinoid

International status:

US: MAFP is not listed specifically in the Schedules to the US *Controlled Substances Act* and is not mentioned anywhere on the DEA website.

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.

Canadian Status: MAFP is not listed in the Schedules to the CDSA. The substance is a synthetic cannabinoid and has demonstrated to be a fatty acid amide hydrolase inhibitor. MAFP has been found to demonstrate irreversible CB_1 cannabinoid receptor antagonist activity[1]. Cannabinoid receptor agonists are currently included under the heading "Cannabis, its preparations, derivatives and similar synthetic preparations" of item 1 in Schedule II to the CDSA, whereas cannabinoid receptor antagonists are specifically excluded. Given that MAFP is a cannabinoid receptor antagonist, it cannot be included under item 1 of Schedule II to the CDSA.

Recommendation: MAFP is not included in the schedules to the CDSA and is not a controlled substance.

[1]Deutsch, D.G. et al. (1997) Methyl Arachidonyl Fluorophosphonate: A Potent Irreversible Inhibitor Of Anandamide Amidase. Biochem Pharmacol. **53:** 255-260.

Date: June 4th, 2012.