Drug Status Report

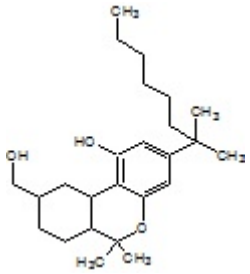
Drug: HU-243

Drug Name Status: HU-243 is the common name.

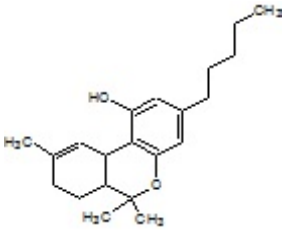
Other Names: 3-Dimethylheptyl-11-hydroxyhexahydrocannabinol

Chemical Name: (6aR-(6aalpha,8beta,9alpha,10abeta))-3-(1,1-dimethylheptyl)-6a,7,8,9,10,10a-hexahydro-1-hydroxy-6,6-dimethyl-6H-dibenzo(b,d)pyran-9-methanol

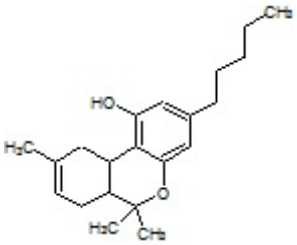
Chemical structure:



HU-243



delta9-THC



delta8-THC

Molecular Formula: $C_{25}H_{40}O_3$

Pharmacological class / Application: cannabinoid receptor agonist

International status:

US: The substance is not listed on the schedules to the US Controlled Substances Act.

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control nor the Green List - List of Psychotropic Substances under International Control.

Canadian Status: Item 1 of Schedule II to the CDSA is, “Cannabis, its preparations, derivatives and similar synthetic preparations including:”. Six chemical substances are listed under this heading: cannabidiol; cannabinol; nabilone; pyrahexyl; tetrahydrocannabinol; and DMPH. The chemical structures of HU-243, Δ9-THC and Δ8-THC are shown above. HU-243 is a synthetic substance that is structurally similar to other cannabinoids listed in Schedule II to the CDSA.

HU-243 is also a cannabinoid receptor agonist[1].

Status decisions have been made on several other cannabinoid receptor agonists and antagonists. See decisions for anandamide; methanandamide; WIN 555212; JWH 015; O-2050, CP55940, AM630, AM251 and SR 141716A. Cannabinoid receptor agonists have been declared to be included within item 1 of Schedule II to the CDSA by virtue of being "similar synthetic preparations." Cannabinoid receptor antagonists have been declared to fall outside item 1 of Schedule II to the CDSA. Based on the similarity of its structure to the cannabinoids listed on Schedule II to the CDSA and its activity as a cannabinoid receptor agonist, HU-243 should be considered to be included in Schedule II to the Act.

Recommendation: HU-243 is included in item 1 of Schedule II to the CDSA and is a controlled substance.

October 15, 2009

[1] Baywitch, M, Rhee, M-H, Avidor-Reiss, T, Breuer, A, Mechoulam, R, and Vogel, Z, J. Biol. Chem. 271, 9902-9905 (1996).