Drug Status Report

Drug: 4-(4-hydroxyphenyl)-2-butanone

Drug Name Status: Raspberry ketone is the common name.

Chemical Name: 4-(4-hydroxyphenyl)-2-butanone

Other Names: 4-(p-hydroxyphenyl)-2-butanone; 4-(4-Hydroxyphenyl)butan-2-one; 1-(4-Hydroxyphenyl)-3-butanone; 4-(4-hydroxyphenyl)-methyl ethyl ketone

Chemical structure:

\[ \text{Molecular Formula: } C_{10}H_{12}O_2 \]

Pharmacological class / Application: Phenol

CAS RN: 5471-51-2

International status:

US: 4-(4-hydroxyphenyl)-methyl ethyl ketone is not listed specifically in the Schedules to the CSA and is not mentioned anywhere on the DEA website.

United Nations: 4-(4-hydroxyphenyl)-methyl ethyl ketone 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: 4-(4-hydroxyphenyl)-2-butanone is a naturally occurring phenolic compound in raspberries and commonly used as a food additive to impart a fruity flavour. The substance is listed under the name 4-(4-hydroxyphenyl)-2-butanone in a nutritional supplement known as “Ripped Freak” which is marketed as a fat burner and is not currently listed in the CDSA. While the substance may be considered similar in structure to methyl ethyl ketone which is

\[ \text{Beekwilder, J. et al. (2007) Microbial production of natural raspberry ketone, } \text{Biotechnol. J.} \text{ } 2, 1270-1279. \]

\[ \text{http://www.rippedfreak.com/index.cfm?pagepath=RIPPED_FREAK/RF_Supplement_Facts&id=19883} \]
currently listed as item 4 in Part 2 of Schedule VI to the CDSA and considered a Class B Precursor, the substance is not related to methyl ethyl ketone and cannot included under methyl ethyl ketone or considered a Class B precursor.

Recommendation: 4-(4-hydroxyphenyl)-2-butanone is not included in any of the Schedules to the CDSA and is not a controlled substance.

April 12th 2010.