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

Substance: Adrenochrome

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):

- The substance is a derivative of epinephrine and is not similar to any of those included in the CDSA.

Prepared by: ___________________________   Date: Jan 18th 2011

Evelyn Soo

Verified by: ___________________________   Date: __________

Marianne Tang

Approved by: ___________________________   Date: __________

DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES

This status was requested by: Nacer Silarbi
Drug Status Report

Drug: Adrenochrome

Drug Name Status: Adrenochrome is the common name.

Chemical Name: 2,3-Dihydro-3-hydroxy-1-methyl-1H-indole-5,6-dione

Other Names: 3-Hydroxy-1-methyl-5,6-indolinedione; Adraxone

Chemical structure:

\[
\begin{align*}
\text{Molecular Formula: } & \quad C_9H_9NO_3 \\
\text{CAS-RN: } & \quad 54-06-8 \\
\text{Pharmacological class / Application: } & \quad \text{Pigment} \\
\text{International status: } & \\
\text{US: } & \quad \text{Adrenochrome is not currently listed in the Schedules to the US Controlled Substances Act and is not mentioned anywhere on the DEA website.} \\
\text{United Nations: } & \quad \text{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.} \\
\text{Canadian Status: } & \quad \text{Adrenochrome is a red pigment which is formed by the oxidation of epinephrine\textsuperscript{1}. The substance is not currently listed in the CDSA and is not structurally similar to any of those included in the Schedules to the CDSA.} \\
\text{Recommendation: } & \quad \text{Adrenochrome is not included in the schedules to the CDSA and is not a controlled substance.} \\
\text{Date: } & \quad 18 \text{ January 2011} \\
\text{\textsuperscript{1}} & \quad \text{Onishi, M. And Odaiima, T. (1997) Formation of adrenochrome from epinephrine by myeloperoxidase via a free radical, FASEB J. 11:A892.}
\end{align*}
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