Health Canada Santé Canada

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

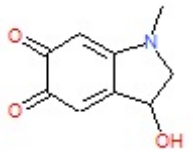
Drug: Adrenochrome

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:



Molecular Formula: $C_9H_9NO_3$

CAS-RN: 54-06-8

Pharmacological class / Application: Pigment
International status:

US: Adrenochrome is not currently listed 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: Adrenochrome is a red pigment which is formed by the oxidation of epinephrine[1]. The substance is not not currently listed in the CDSA and is not structurally similar to any of those included in the Schedules to the CDSA.

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

Date: 18 January 2011

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[1]Onishi, M. And Odaiima, T. (1997) Formation of adrenochrome from epinephrine by myeloperoxidase via a free radical, FASEB J. **11**:A892.