Health Canada
Santé Canada

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

Substance: Ferruginol

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 not structurally similar to any of those listed in the CDSA.

Prepared by: _____ Date: _____
Evelyn C Soo

Verified by: _____ Date: _____
Mark Kozlowski

Approved by: _____ Date: _____
DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES

This status was requested by: Lehli Pour, DAS

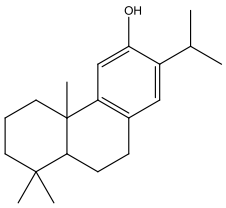
Drug Status Report

Drug: Ferruginol

Drug Name Status: Ferruginol is the common name.

Chemical Name: (4bS,8aS)-4b,8,8-Trimethyl-2-propan-2-yl-5,6,7,8a,9,10-hexahydrophenanthren-3-ol

Chemical structure:



Molecular Formula: $C_{20}H_{30}O$

Pharmacological class / Application: Abietane diterpene phenol

CAS-RN: 514-62-5

International status:

US: Ferruginol 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: Ferruginol is not listed in the Schedules to the CDSA. The substance is present in the needles of redwood *Sequoia sempervirens* and in the immature cones of *Chamaecyparis lawsoniana*, and has been reported to display various pharmacological properties including anti-tumour, anti-fungal, anti-bacterial properties and cardio-protective effects[i]. The substance is not structurally similar to any of those included in the Schedules to the CDSA.

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

Date: September 12th, 2012.

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[i] Wei, Y et al. (2009) Determination of ferruginol in rat plasma via high-performance liquid chromatography and its application in pharmacokinetics study, Biomed. Chromatogr. **23**:1116-1120.