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

Substance: Palmitoylisopropylamide

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 an endocannabinoid showing no cannabinoid receptor agonist activity and cannot be included under the Schedules to the CDSA.

Prepared by: ___________________________________ Date: _______________
Zack Li

Verified by: ________________________________ Date: _______________
Mark Kozlowski

Approved by: ________________________________ Date: _______________
DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES

This status was requested by: “third party information removed as per agreement with applicant”
Drug Status Report

**Drug:** Palmitoylisopropylamide

**Drug Name Status:** Palmitoylisopropylamide is the common name.

**Chemical Name:** N-(1-Methylethyl)-hexadecanamide

**Other Names:** PIA

**Chemical structure:**

![Chemical structure](image)

**Molecular Formula:** C_{19}H_{39}NO

**Pharmacological class / Application:** Endocannabinoid

**CAS-RN:** N/A

**International status:**

**US:** Palmitoylisopropylamide 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:** Palmitoylisopropylamide is not listed specifically in the CDSA. The substance is a synthetic cannabinoid and in recent studies evaluating its inhibition of anandamide uptake, palmitoylisopropylamide was shown to have little affinity for the CB₁ and CB₂ cannabinoid receptor and no cannabinoid receptor agonist activity. Cannabinoid receptor agonists are currently included under the heading “Cannabis, its preparations, derivatives and similar synthetic preparations” of item 1 in Schedule II to the CDSA, whereas cannabinoid receptor antagonists are specifically excluded. Given that palmitoylisopropylamide does not demonstrate any cannabinoid receptor agonist activity, it cannot be included under item 1 of Schedule II to the CDSA.

**Recommendation:** Palmitoylisopropylamide is not included in the Schedules to the CDSA and is not a controlled substance.

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1 Jonsson, KO et al. (2001) Effects of homologues and analogues of palmitoylethanolamide upon the inactivation of the endocannabinoid anandamide, Arch. Toxicol. 133: 1263-1275
Date: May 30th, 2012.