Health Canada
Santé Canada

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

Substance: N-Arachidonylglycine

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

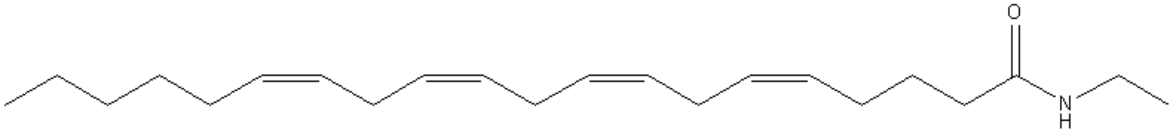
Drug: N-Arachidonylglycine

Drug Name Status: N-Arachidonylglycine is the common name.

Chemical Name: N-(1-oxo-5Z,8Z,11Z,14Z-eicosatetraenyl)glycine

Other Names: NAGly

Chemical structure:



Molecular Formula: $C_{22}H_{35}NO_3$

Pharmacological class / Application: Endocannabinoid

CAS-RN: 179113-91-8

International status:

US: N-Arachidonylglycine 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: N-Arachidonylglycine is not listed specifically in the CDSA. The substance is an endocannabinoid and in studies evaluating its analgesic effects, N-Arachidonylglycine has been found to demonstrate no activity at the CB_1 or CB_2 receptors[1]. "Cannabis, its preparations, derivatives and similar synthetic preparations" are currently listed as item 1 in Schedule II to the CDSA. Given that N-Arachidonylglycine does not demonstrate any cannabinoid receptor agonist activity, it cannot be included under item 1 of Schedule II to the CDSA

Recommendation: N-Arachidonylglycine is not included in the Schedules to the CDSA and is not a controlled substance.

Date: May 28th, 2012.

[1] Huang, SM et al. (2001) Identification of a new class of molecules, the arachidonyl amino acids, and characterization of one member that inhibits pain, J. Biol. Chem. **276:** 42639-42644