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

Substance: 3-((Aminooiminomethyl)thio)-2-propenoic acid

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 does not display structural similarity to any of those included in the Schedules to the CDSA.

Prepared by: ________________________________ Date: January 24th, 2012
Evelyn Soo

Verified by: ________________________________ Date: __________
Mark Kozlowski

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

This status was requested by: Tanya Arcand, OCS
Drug Status Report

**Drug:** 3-((Aminoiminomethyl)thio)-2-propenoic acid

**Drug Name Status:** 3-((Aminoiminomethyl)thio)-2-propenoic acid is the common name.

**Chemical Name:** 2-Propenoic acid, 3-((aminoiminomethyl)thio)-, (Z)-

**Other Names:** ZAPA; ((Z)-3-[(aminoiminomethyl)thio]-2-propenoic acid hydrochloride).

**Chemical structure:**

![Chemical structure diagram](image)

**Molecular Formula:** \( C_4H_6N_2O_2S \)

**Pharmacological class / Application:** GABA receptor agonist

**CAS-RN:** 92138-10-8

**International status:**

US: 3-((Aminoiminomethyl)thio)-2-propenoic acid is not listed in 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: The substance is not listed specifically in the schedules to the CDSA. ZAPA has been reported in the scientific literature to be a potent agonist of the gamma-aminobutyric acid (GABA) receptor\(^1\) and is not structurally similar to any of the substances listed in the schedules to the CDSA.

**Recommendation:** 3-((Aminoiminomethyl)thio)-2-propenoic acid is not included in the schedules to the CDSA is not a controlled substance.

**Date:** January 24th, 2012.

---

\(^1\)Holden-Dye, L. And Walker, RJ. (1988) ZAPA, (Z)-3-[(aminoiminomethyl)thio]-2-propenonic acid hydrochloride, a potent agonist at GABA-receptors on the Ascaris muscle cell, Br. J. Pharmacol. **95:**3-5.