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

Substance:  
I. Ethyl 1,1,2,2-tetrafluoroethyl ether  
II. 2,2,2-trifluoroethyl 1,1,2,2-tetrafluoroethyl ether

Based on the current information available to the Office of Controlled Substances, it appears that the above substances are:

- Controlled  
- Not Controlled

under the schedules of the Controlled Drugs and Substances Act (CDSA) for the following reason(s):

- The substances do not display any structural similarity to those included in the schedules to the CDSA.

Prepared by: ___________________________  Date: January 31st, 2012
Marie-Christine Nolet

Verified by: ___________________________  Date: __________
Mark Kozlowski

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

This status was requested by: Andree Bernard
Drug Status Report

**Drug:**
I. Ethyl 1,1,2,2-tetrafluoroethyl ether  
II. 2,2,2-trifluoroethyl 1,1,2,2-tetrafluoroethyl ether

**Drug Name Status:**
I. Ethyl 1,1,2,2-tetrafluoroethyl ether  
II. 2,2,2-trifluoroethyl 1,1,2,2-tetrafluoroethyl ether

**Chemical Name:**
I. Ethyl 1,1,2,2-tetrafluoroethyl ether  
II. 2,2,2-trifluoroethyl 1,1,2,2-tetrafluoroethyl ether

**Other Names:**
I. Ethane, 1-ethoxy-1,1,2,2-tetrafluoroethyl ether  
II. Ethane, 1,1,2,2-tetrafluoro-1-(2,2,2-trifluoroethoxy)

**Chemical structure:**

![Chemical structure diagram]

**Molecular Formula:**
I. C\textsubscript{4}H\textsubscript{6}F\textsubscript{4}O  
II. C\textsubscript{4}H\textsubscript{3}F\textsubscript{7}O

**Pharmacological class / Application:** Fine Chemical

**CAS-RN:**
I. 512-51-6  
II. 406-78-0

**International status:**

US: Ethyl 1,1,2,2-tetrafluoroethyl ether and 2,2,2-trifluoroethyl 1,1,2,2-tetrafluoroethyl ether are not listed in the schedules to the US *Controlled Substances Act* and are not mentioned on the DEA website.

United Nations: The substances are 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: Ethyl 1,1,2,2-tetrafluoroethyl ether and 2,2,2-trifluoroethyl 1,1,2,2-tetrafluoroethyl ether are not listed in the schedules to the CDSA and do not display any structural similarity to any of those included in the CDSA. Hydrogen-containing fluorinated ethers have been developed as alternative to the chlorofluorocarbons (CFC) as refrigerant. Substances I and II are listed in numerous patent as precursors for the development of new hydrogen-containing fluorinated ethers or as part of mixtures of compounds to use as refrigerant.

**Recommendation:** Ethyl 1,1,2,2-tetrafluoroethyl ether and 2,2,2-trifluoroethyl 1,1,2,2-tetrafluoroethyl ether are not included in the schedules to the CDSA and are not controlled substances.

**Date:** January 31st, 2012.