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

Substance:  I- (2S,3R)-1-(Dimethylamino)-3-(3-benzyloxyphenyl)-2-methyl-3-pentanol HCl  
II- (2R,3R)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl  
III- (2R,3S)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl  
IV- (Z,E)-(2R)-[3-(3-Benzylxyphenyl)-2-methyl-pent-3-enyl]dimethylamine HCl

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 substances are not structurally similar to any of the substances included in the schedules to the CDSA.

Prepared by: ________________________________  Date: ________________  
Vincent Marleau

Verified by: ________________________________  Date: ________________  
Mark Kozlowski

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

This status was requested by:  Ali Feroz, OCS
Drug: I- (2S,3R)-1-(Dimethylamino)-3-(3-benzyloxyphenyl)-2-methyl-3-pentanol HCl
II- (2R,3R)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl
III- (2R,3S)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl
IV- (Z,E)-(2R)-[3-(3-Benzyloxyphenyl)-2-methyl-pent-3-enyl]dimethylamine HCl

Drug Name Status:
I- (2S,3R)-1-(Dimethylamino)-3-(3-benzyloxyphenyl)-2-methyl-3-pentanol HCl
II- (2R,3R)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl
III- (2R,3S)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl
IV- (Z,E)-(2R)-[3-(3-Benzyloxyphenyl)-2-methyl-pent-3-enyl]dimethylamine HCl are the common names.

Chemical Name:
I- (2S,3R)-1-(Dimethylamino)-3-(3-benzyloxyphenyl)-2-methyl-3-pentanol HCl
II- (2R,3R)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl
III- (2R,3S)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl
IV- (Z,E)-(2R)-[3-(3-Benzyloxyphenyl)-2-methyl-pent-3-enyl]dimethylamine HCl

Other Names:
I- (2S,3R)-3-(3-benzyloxy)phenyl)-1-(dimethylamino)-2-methylpentan-3-ol HCl
II- N/A
III- N/A
IV- (R,Z)-3-(3-Benzylloxy)phenyl)-N,N,2-trimethylpent-3-en-1-amine HCl

Chemical structure:

![Chemical Structure Diagram]

Molecular Formula: I- C₂₁H₃₀ClNO₂; II- C₂₁H₃₀ClNO; III- C₂₁H₃₀ClNO; IV- C₂₁H₂₈ClNO

CAS-RN: I- N/A; II- N/A; III- N/A; IV- N/A

Pharmacological class / Application: Fine chemical

International status:
US: (2S,3R)-1-(Dimethylamino)-3-(3-benzyloxyphenyl)-2-methyl-3-pentanol HCl, (2R,3R)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl, (2R,3S)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl, (Z,E)-(2R)-[3-(3-Benzylloxyphenyl)-2-methyl-pent-3-enyl]dimethylamine HCl are not listed specifically in the Schedules to the US Controlled Substances Act and are not mentioned anywhere 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: (2S,3R)-1-(Dimethylamino)-3-(3-benzyloxyphenyl)-2-methyl-3-pentanol HCl, (2R,3R)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl, (2R,3S)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl, (Z,E)-(2R)-(3-(Benzyloxyphenyl)-2-methyl-pent-3-enyl)dimethylamine HCl are not listed in the schedules to the CDSA. The substances are reportedly involved in the synthesis of tapentadol, which is not currently controlled under the CDSA. These substances are not structurally similar to any of those listed in the schedules to the CDSA.

**Recommendation:** 2(2S,3R)-1-(Dimethylamino)-3-(3-benzyloxyphenyl)-2-methyl-3-pentanol HCl, (2R,3R)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl, (2R,3S)-3-(3-(Benzyloxy)phenyl)-N,N,2-trimethyl-pentan-1-amine HCl, (Z,E)-(2R)-(3-(Benzyloxyphenyl)-2-methyl-pent-3-enyl)dimethylamine HCl are not included in the schedules to the CDSA and are not controlled substances.

**Date:** May 7th, 2012.