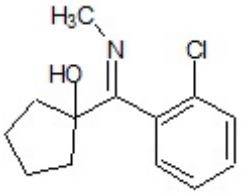
# Drug Status Report

**Drug:** Ketamine related substances

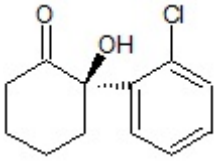
**Drug Name Status**: EP impurity A; EP impurity B; and EP impurity C

**Chemical Name:** (A) 1-[(2-chlorophenyl)(methylimino)methyl]cyclopentanol
(B) (2RS)-2-(2-chlorophenyl)-2-hydroxycyclohexanone)
(C) (2-chlorophenyl)(1-hydroxycyclopentyl)methanone

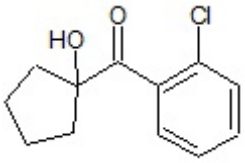
**Chemical structure:**




EP impurity A




EP impurity B




EP impurity C

**Molecular Formula:** (A) $C_{13}H_{16}ClNO$; (B) $C_{12}H_{13}ClO_2$; (C) $C_{12}H_{13}ClO_2$

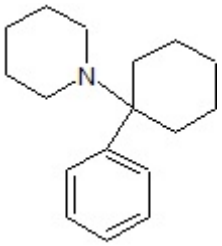
**Pharmacological class / Application:** pharmaceutical related compound

**International status**:

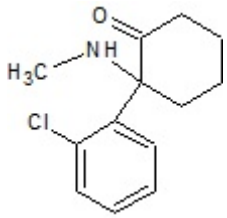
US: The substances are not listed on the US Controlled Substances Act and are not mentioned on the DEA website.

United Nations: The substances are not listed on the Yellow List - List of Narcotic Drugs under International Control nor the Green List - List of Psychotropic Substances under International Control.

Canadian Status: Ketamine is subitem 14(1) of Schedule I to the CDSA. It's addition in 2005 was made as an analogue of phencyclidine. The structures of the two substances are shown below.




Phencyclidine




Ketamine

As ketamine is the only analogue of phencyclidine, there is only one structure on which to base a rationale to explain the meaning of an analogue of phencyclidine. However, in comparison to other substances such as rolicyclidine, PCE, TCP etc., which are closely related, it is essential that a nitrogen be attached to the cyclohexyl moiety. None of the ketamine related substances has this feature. They should not therefore be considered analogues of phencyclidine.

Recommendation: EP impurity A, EP impurity B, and EP impurity C are not included in item 14 of Schedule I to the CDSA and are not controlled substances.

March 20, 2007