



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



Substances:

- 5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-one N oxide,
5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-acetylhydrazine,
5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-one, and
5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-thione.

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

Controlled X
Not Controlled []

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

- These drugs are currently not listed specifically on the CDSA.
Item 18 of Schedule IV to the CDSA is, "Benzodiazepines, their salts and derivatives".
With the exception of brotizolam, the benzodiazepines have a characteristic core structural feature. Differentiation of the members of the family of benzodiazepines results from differences in the constituents attached to these core structures.
The benzodiazepines diazepam and delorazepam are structurally similar to 5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-one.
These four substances should then be considered to be benzodiazepines.

Supporting document(s) attached: X

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Verified by: See email Date: 2005-07-28
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Approved by: DIRECTOR, OFFICE OF CONTROLLED SUBSTANCES Date:

Drug Status Report

Drugs:

5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-one N oxide (I)

5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-acetylhydrazine (II)

5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-one (III)

5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-thione (IV)

**** For future reference the substances have been identified as: I, II, III, IV (see above)**

Chemical Names: The chemical names of the substances are:

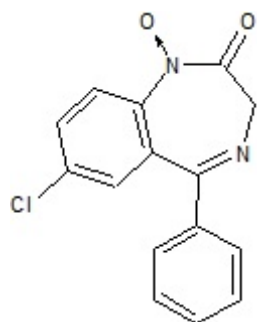
(I): 5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-one N oxide

(II): 5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-acetylhydrazine

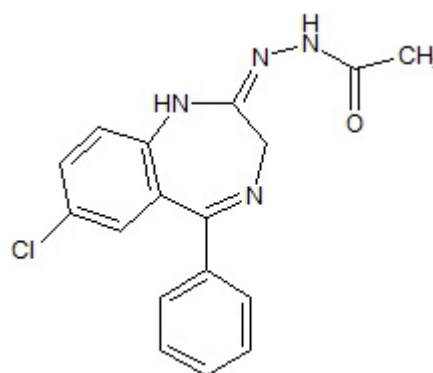
(III): 5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-one

(IV): 5-Phenyl-7-chloro-1,3-dihydro-1,4-benzodiazepine-2H-2-thione

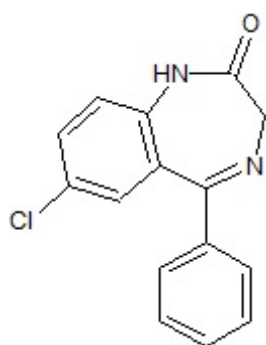
Chemical structures:



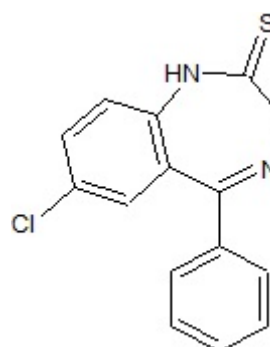
I



II



III



IV

Molecular Formulas:

(I): $C_{15}H_{10}ClN_2O_2$

(II): $C_{17}H_{14}ClN_4O$

(III): $C_{15}H_{10}ClN_2O$

(IV): $C_{15}H_{10}ClN_2S$

Pharmacological class / Application: benzodiazepines

International status:

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

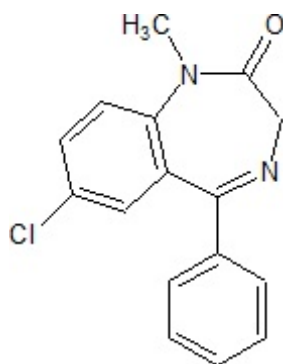
United Nations: The drug is not listed on the Yellow List - List of Narcotic Drugs under International Control. The drug is not listed on the Green List - List of Psychotropic Substances under International Control

Canadian Status: The drug is currently not listed specifically on the CDSA. Item 18 of Schedule IV to the CDSA is, "Benzodiazepines, their salts and derivatives". With the exception of brotizolam, the benzodiazepines have a characteristic core structural feature. Two variations of the characteristic feature are shown below.

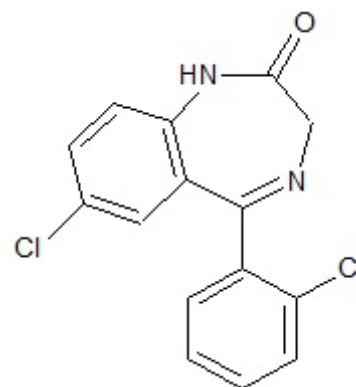


Differentiation of the members of the family of benzodiazepines results from differences in the constituents attached to the two core structures above.

To illustrate the close family structural similarities the structures of diazepam and delorazepam are shown below.



Diazepam



Delorazepam

The structural similarity of these two benzodiazepines to (III) above is clear. The four substances (I) through (IV) should then be considered to be benzodiazepines.

Recommendation: Substances (I) through (IV) are included in item 18 of Schedule IV to the CDSA and are controlled substances.