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

Substance:   (+)-N-Allylnormetazocine Hydrochloride

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

Controlled       X
Not Controlled    □

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

• Item 11 of Schedule I to the CDSA is, “Benzazocines, their salts, derivatives and salts of derivatives including”. Included specifically in the list are three substances: phenazocine, metazocine and pentazocine.

• In order to determine whether (+)-N-allylnormetazocine hydrochloride is included in item 11 of Schedule I, it is necessary to know what is meant by “benzazocines” in Schedule I to the CDSA. There is no specific chemical substance known as “benzazocine”. However, 3-benzazocine which is the root structure for all of the substances listed under item 11.

• As a result of this structural analysis of substances currently listed in Item 11 of Schedule I to the CDSA, (+)-N-Allylnormetazocine hydrochloride, a substance that is the dextrorotatory salt of N-allylnormetazocine, is a substance that is included within the group of substances listed in item 11 of Schedule I to the CDSA.

Supporting document(s) attached: X

Prepared by: ______________ Date: 2005-06-21
TIANA BRANCH

Verified by: See email Date: 2005-06-21
MICHAEL LEBELLE

Approved by: __________________________ Date: ___________

(+)-N-Allylnormetazocine Hydrochloride

Related Names:
(+)-N-Allylnormetazocine HCl
(+)-NANM
1,2,3,4,5,6-hexahydro-3-allyl-6,11-dimethyl-2,6-Methano-3-benzazocin-8-ol
1,2,3,4,5,6-hexahydro-6,11-dimethyl-3-(2-propenyl)-2,6-Methano-3-benzazocin-8-ol
(2S-(2alpha,6alpha,11R*)) -1,2,3,4,5,6-Hexahydro-6,11-dimethyl-3-(2-propenyl)-2,6-methano-3-benzazocin-8-ol
2'-hydroxy-5,9-dimethyl-2-allyl-6,7-benzomorphan
N-allylnorcyclazocine
N-allylnormetazocine
N-allylnorphenazocine
SK&F 10047, (2alpha,6alpha,11R*)-(+-)-isomer
SK&F 10047, 2R-(2alpha,6alpha,11R*)-isomer
SK&F 10047, 2S-(2alpha,6alpha,11R*)-isomer
SK&F 10047, hydrobromide
SK&F 10047, monolactate
SK&F 10047, monooxalate
SKF 10047
SKF-10047
SKF-10,047
SK&F 10047
WIN 19631

Drug Status Report (M. LeBelle)

Drug: (+)-N-Allylnormetazocine hydrochloride.

Drug Name Status: (+)-N-Allylnormetazocine is the common name.

Chemical Name: 1,2,3,4,5,6-Hexahydro-6,11-dimethyl-2,6-methano-3-(propenyl)-3-benzazocin-8-ol

Other Names: 1,2,3,4,5,6-Hexahydro-3-allyl-6,11-dimethyl-2,6-methano-3-benzazocin-8-ol
N-Allylnormetazocine

Molecular Formula: $C_{17}H_{23}NO$

Pharmacological class / Application: Unknown

International status:

US: The drug is not currently specifically listed on the US Controlled Substances Act (CSA) and is not mentioned on the DEA website. However, (+)-N-allylnormetazocine hydrochloride is likely considered a controlled substance under the CSA due to the “analogue” provision of that Act. The title substance is a salt of a substance which has a “chemical structure of which is substantially similar to the chemical structure of” metazocine and phenazocine both of which are listed on Schedule II to that Act.

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: Item 11 of Schedule I to the CDSA is, “Benzazocines, their salts, derivatives and salts of derivatives including:”. Included specifically in the list are three substances: phenazocine, metazocine and pentazocine. One substance is excluded from control measures applicable to the other members of the Benzazocine family listed on Schedule I to this Act. That substance is cyclazocine. In order to determine whether (+)-N-allylnormetazocine hydrochloride is included in item 11 of Schedule I, it is necessary to know what is meant by “benzazocines” in Schedule I to the CDSA. There is no specific chemical substance known as “benzazocine”. However, 3-benzazocine which is the root structure for all of the substances listed under item 11 has the following structure:
Three of the carbons have been designated by their nomenclature position, to indicate the numbering system used for chemical compounds of this type. This also helps to see the relation between the name and the structure for a benzazocine such as metazocine.

\[
\text{3-benzazocine}
\]

The structure of metazocine is:

and the name is:

1,2,3,4,5,6-hexahydro-3,6,11-trimethyl-2,6-methano-3-benzazocin-8-ol.

All of the “Benzazocines” listed on Schedule I to the CDSA have the following core structural element where R denotes different chemical groups that differentiate substances.

For the four substances currently listed on Schedule I to the CDSA, R is equivalent to the chemical groups shown in Table 1 below. Be referring to the structure of the title substance on page 1, for N-Allylnormetazocine, R is equivalent to the following:
Table 1. Chemical Groups Differentiating the “Benzazocines” currently listed on Schedule I to the CDSA.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Characteristic Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenazocine</td>
<td><img src="image1" alt="Phenazocine" /></td>
</tr>
<tr>
<td>Metazocine</td>
<td><img src="image2" alt="Metazocine" /></td>
</tr>
<tr>
<td>Pentazocine</td>
<td><img src="image3" alt="Pentazocine" /></td>
</tr>
<tr>
<td>Cyclazocine</td>
<td><img src="image4" alt="Cyclazocine" /></td>
</tr>
</tbody>
</table>

As a result of this structural analysis of substances currently listed in Item 11 of Schedule I to the CDSA, (+)-N-Allylnormetazocine hydrochloride, a substance that is the dextrorotatory salt of N-allylnormetazocine, is a substance that is included within the group of substances listed in item 11 of Schedule I to the CDSA.

Recommendation: (+)-N-Allylnormetazocine hydrochloride is included in item 11 of Schedule I to the CDSA and is a controlled substance.