



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



Substance: Isoquinoline analogues including:

- I FMOC-D-TIC-OH
II (3S)-benzyl-1,2,3,4-tetrahydroisoquinoline-3-carboxylate 4-toluenesulfonate
III (3S)-2-carbobenzoxy-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid
IV BOC-D-TIC-OH
V 5-aminoisoquinoline
VI 7-hydroxyisoquinoline

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):

- Item 1 of Schedule I to the CDSA is, 'Opium poppy (Papaver somniferum), its preparations, derivatives, alkaloids and salts, including.' The alkaloids of the opium belong to either the phenanthrene or isoquinoline families. The isoquinoline alkaloids have no significant CNS activity and are excluded from item 1. See narcotine and papaverine. The isoquinoline alkaloids are also expressly excluded from the Controlled Substances Act in the United States. There is some incorrect information on the internet that identifies morphine and codeine as isoquinoline alkaloids.

Supporting document(s) attached: Drug Status Report By Mr. LeBelle

Prepared by: Xiao Peng Feng Date: June 12, 2006

Drug Status Report By: Mr. M. LeBelle Date: June 12, 2006

Approved by: DIRECTOR, OFFICE OF Date: _____

CONTROLLED SUBSTANCES

Drug Status Report

Drug: Isoquinoline analogues

The request for the status of quinoline and isoquinoline analogues came from a company interested in importing several substances.

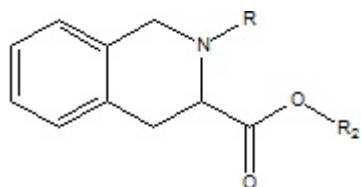
- I Fmoc-D-TIC-OH
- II (3S)-benzyl-1,2,3,4-tetrahydroisoquinoline-3-carboxylate
4-toluenesulfonate
- III (3S)-2-carbobenzoxy-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid
- IV BOC-D-TIC-OH
- V 5-aminoisoquinoline
- VI 7-hydroxyisoquinoline

Drug Name Status:

- I Fmoc-D-TIC-OH is a common name
- II (3S)-benzyl-1,2,3,4-tetrahydroisoquinoline-3-carboxylate
4-toluenesulfonate is the chemical name
- III (3S)-2-carbobenzoxy-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid
- IV BOC-D-TIC-OH is a common name
- V 5-aminoisoquinoline
- VI 7-hydroxyisoquinoline

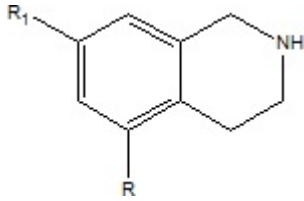
Chemical Name:

- I N-9-fluorenylmethoxycarbonyl-1,2,3,4-tetrahydro-3-isoquinolinecarboxylic acid
- II (S)-3-Benzylloxycarbonyl-1,2,3,4-tetrahydro-isoquinolinium-4-methylbenzenesulfonate
- III (3S)-2-carbobenzoxy-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid is the chemical name
- IV N-*t*-butyloxycarbonyl-1,2,3,4-tetrahydro-3-isoquinolinecarboxylic acid
- V 5-aminoisoquinoline
- VI 7-hydroxyisoquinoline



Chemical structure:

- I R= 9-fluorenylmethoxycarbonyl R₂ = H
- II R= H, p-toluenesulfonate salt R₂ = benzyl
- III R= -C=OO-benzyl R₂ = H
- IV R= *t*-butyloxycarbonyl R₂ = H



V	R=NH ₂	R ₁ =H
VI	R=H	R ₁ =OH

Molecular Formula:

I	C ₂₅ H ₂₁ NO ₄
II	C ₂₄ H ₂₅ NO ₅ S
III	C ₁₇ H ₁₇ NO ₂
IV	C ₁₅ H ₁₉ NO ₄
V	C ₉ H ₁₂ N ₂
VI	C ₉ H ₁₁ NO

Pharmacological/chemical class / Application: fine chemicals

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: Item 1 of Schedule I to the CDSA is, "Opium poppy (*Papaver somniferum*), its preparations, derivatives, alkaloids and salts, including." The alkaloids of the opium belong to either the phenanthrene or isoquinoline families. The isoquinoline alkaloids have no significant CNS activity and are excluded from item 1. See narcotine and papaverine. The isoquinoline alkaloids are also expressly excluded from the Controlled Substances Act in the United States. There is some incorrect information on the internet that identifies morphine and codeine as isoquinoline alkaloids.

Recommendation: The substances I to VI are not included in the schedules to the CDSA and are not controlled substances.

June 12, 2006