

Drug Status Report

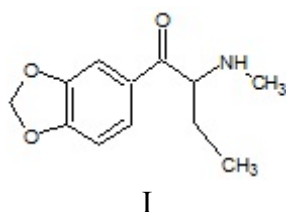
Drug: Beta-Keto-Methylbenzodioxolylbutanamine (I)

Drug Name Status: Beta-Keto-Methylbenzodioxolylbutanamine is the common name.

Chemical Name: 1-(1,3-Benzodioxol-5-yl)-2-(methylamino)butan-1-one

Other Names: bk-MBDB; 2-methylamino-1-(3,4-methylenedioxyphenyl)butan-1-one; butylone; mebylone

Chemical structure:



Molecular Formula: C₁₂H₁₅NO₃

Pharmacological class / Application: unknown

International status:

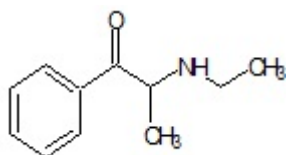
US: The substance is not currently listed on the schedules to the US Controlled Substances Act and is not mentioned on the DEA website. However, I may be controlled in the US due to the analogue provisions in the CSA.

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

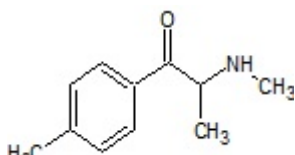
Canadian Status: This substance was reviewed previously under the name 2-methylamino-1-(3,4-methylenedioxyphenyl)-butan-1-one. A copy of that report is appended. The review of the substance at that time focussed on a comparison of the structural features of the title substance and two other substances to the recognized member of the amphetamine family, MDMA. The report noted that the two other substances differed from MDMA in single features while recognising that the structure of I contained both these structural differences.

Item 1 of Schedule III to the CDSA is "Amphetamines, their salts, derivatives, isomers and analogues and salts of derivatives, isomers and analogues". The term analogue is defined in section 2 to the CDSA; "analogue" means a substance that, in relation to a controlled substance, has a substantially similar chemical structure."

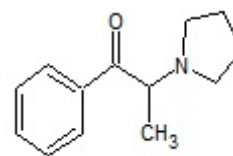
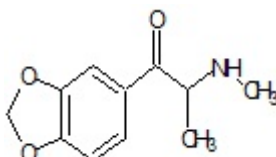
Over the last several years, the interpretation of the text of item 1 of Schedule III has been used to determine the status of several substances for the purpose of application of the CDSA. Recent reviews of ethcathinone, 4-methylmethcathinone, alpha-pyrrolidinopropiophenone and 2-methylamino-1-(3,4-methylenedioxy)-propiophenone (structures below) recommended that these substances be considered to be included in the listing of amphetamines as they also were analogues of the amphetamines.



Ethcathinone



4-Methylmethcathinone

Alpha-pyrrolidino-
propio-
phenone2-Methylamino-1-(3,4-
methylenedioxy)-propio-
phenone

In reviewing the substances above that are now considered to be analogues of the amphetamines, it would be consistent to consider substance I to be an analogue of the amphetamines and thus included in item 1 of Schedule III.

Recommendation: Beta-Keto-Methylbenzodioxolylbutanamine (I) is included in item 1 of Schedule III to the CDSA and is a controlled substance.

September 28, 2009

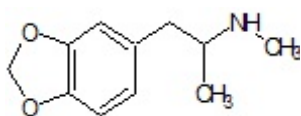
Drug Status Report

Drug: 2-Methylamino-1-(3,4-methylenedioxyphenyl)-butan-1-one

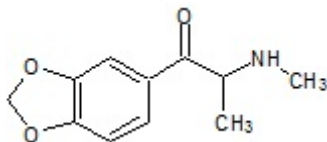
Drug Name Status: 2-Methylamino-1-(3,4-methylenedioxyphenyl)-butan-1-one is the common name

Chemical Name: N-methyl- α -ethyl-1,3-benzodioxole-5-(2-oxoethanamine)

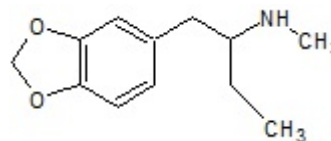
Chemical structure:



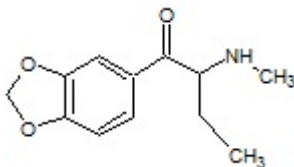
N-methyl-3,4-methylenedioxyamphetamine (MDMA)



2-Methylamino-1-(3,4-methylenedioxy)-propiophenone



N-Methyl-1-(3,4-methylenedioxyphenyl)-2-butanamine



2-Methylamino-1-(3,4-methylenedioxyphenyl)-butan-1-one

Molecular Formula: $C_{12}H_{15}NO_3$

Pharmacological class / Application: fine chemical

International status:

US: The substance is not currently listed on the US Controlled Substances Act and is not mentioned on the DEA website. However, 2-Methylamino-1-(3,4-methylenedioxyphenyl)-butan-1-one may be controlled in the US due to the analogue provisions in the CSA.

United Nations: The substance is 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 III to the CDSA is, "Amphetamines, their salts, derivatives, isomers and analogues and salts of derivatives, isomers and analogues." Subitem 1(9) is N-methyl-3,4-methylenedioxyamphetamine which is also known as MDMA and Ecstasy (structure shown above). OCS has determined that 2-methylamino-1-(3,4-methylenedioxy)-propiophenone and N-Methyl-1-(3,4-methylene-dioxyphenyl)-2-butanamine are analogues of MDMA. The former has an additional oxygen on the side chain; the latter has an additional methyl group on the side chain. Analogue is defined in the CDSA as "a substance that, in relation

to a controlled substance, has a substantially similar chemical structure.” These two substances are clearly substantially similar in chemical structure to MDMA.

2-Methylamino-1-(3,4-methylenedioxyphenyl)-butan-1-one has both the additional oxygen and the additional methyl group on the side chain. While a similarity to MDMA can be seen, it is arguable whether this substance is substantially similar to MDMA.

Recommendation: 2-Methylamino-1-(3,4-methylenedioxyphenyl)-butan-1-one is not included in the schedules to the CDSA and is not a controlled substance.

May 16, 2007