

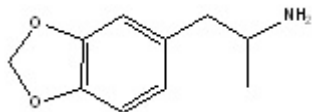
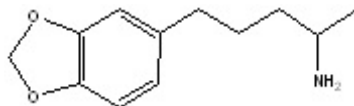
## 1200Drug Status Report

**Drug:** 1-(3,4-methylenedioxyphenyl)-4-pentylamine

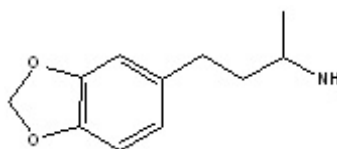
**Drug Name Status:** 1-(3,4-methylenedioxyphenyl)-4-pentylamine is the common name.

**Chemical Name:** 1-(3,4-methylenedioxyphenyl)-4-pentylamine

**Chemical structure:**



MDA



1-(3,4-methylenedioxyphenyl)-3-butanamine

**Molecular Formula:** C<sub>12</sub>H<sub>17</sub>NO<sub>2</sub>

**CAS-RN:** unknown

**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.

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: 1-(3,4-methylenedioxyphenyl)-4-pentylamine is not currently listed in the CDSA. The substance bears some structural similarity to 3,4-methylenedioxyamphetamine (MDA) which is listed under Item 1 (sub-item 5) of Schedule III to the CDSA under the heading "Amphetamines, their salts, derivatives, isomers and analogues and salts of derivatives, isomers and analogues". However, in order for the substance to be considered an analogue of MDA, it must have a substantially similar chemical structure to MDA. While 1-(3,4-methylenedioxyphenyl)-4-pentylamine contains the same 3,4-methylenedioxyphenyl core structure as MDA, it bears an additional C<sub>2</sub>H<sub>4</sub> group in the side chain and therefore, it is disputable as to whether the substance could be considered *substantially* similar to MDA.

Recently, the status of 1-(3,4-methylenedioxyphenyl)-3-butanamine was reviewed and it was determined to be substantially similar to *N*-methyl-1(3,4-methylenedioxyphenyl)3-butanamine (HMDMA), which is a well-characterised homologue of MDMA with an additional CH<sub>2</sub> group in the side chain. The status report for the substance is appended. It could be argued that the substance is similar to *N*-methyl-1(3,4-methylenedioxyphenyl)3-butanamine in that it contains an extra CH<sub>2</sub> in its side chain. However, compared to HMDMA, of which *N*-methyl-1(3,4-methylenedioxyphenyl)3-butanamine was considered an analogue of, the substance is missing a *N*-methyl group and therefore it cannot be concluded that the substance would be an amphetamine analogue.

In addition to the structural aspects of this substance, there is no information in the scientific literature regarding the origins of this substance nor its synthetic route and thus it cannot be deduced whether this substance is derived from an amphetamine. There is also no information in the scientific literature regarding the pharmacological properties of this substance.

Given that 1-(3,4-methylenedioxyphenyl)-4-pentylamine cannot be unequivocally concluded as an analogue of neither MDA nor HMDMA, the lack of information on its synthesis and its pharmacological activity, the substance cannot at present be included under item 1 of Schedule III to the CDSA.

Recommendation: 1-(3,4-methylenedioxyphenyl)-4-pentylamine is not under item 1 of Schedule III to the CDSA and is a controlled substance.

July 9<sup>th</sup> 2010.

## Drug Status Report

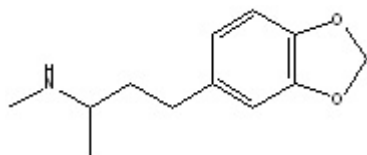
**Drug:** 1-(3,4-methylenedioxyphenyl)-3-butanamine

**Drug Name Status:** 1-(3,4-methylenedioxyphenyl)-3-butanamine is the common name.

**Chemical Name:** 4-(benzodioxol-5-yl)-butan-2-amine

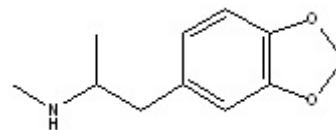
**Chemical structure:**

1-(3,4-methylenedioxyphenyl)-3-butanamine



*N*-methyl-1-(3,4-methylenedioxyphenyl)-3-butanamine  
(HMDMA)

3,4-Methylenedioxyamphetamine (MDA)



3,4-methylenedioxyamphetamine  
(MDMA)

**Molecular Formula:** C<sub>11</sub>H<sub>15</sub>NO<sub>2</sub>

**Pharmacological class / Application:** analogue of amphetamine

**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, the substance may be considered 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: 1-(3,4-methylenedioxyphenyl)-3-butanamine is not currently listed in the Schedules to the CDSA. However, the structure of 1-(3,4-methylenedioxyphenyl)-3-butanamine is substantially similar to 3,4-methylenedioxyamphetamine (MDA) differing only with an additional CH<sub>2</sub> group in the side chain. This structural similarity is also observed between 3,4-methylenedioxyamphetamine (MDA) and *N*-methyl-1-(3,4-methylenedioxyphenyl)-3-

butanamine (HMDMA), which is a well-characterised homologue of MDMA<sup>1,2</sup>.

3,4-methylenedioxyamphetamine (MDA) is presently listed as sub-item 5 under Item 1 of Schedule III to the CDSA, under the item heading “Amphetamines, their salts, derivatives, isomers and analogues and salts of derivatives, isomers and analogues”. The term "analogue" means a substance that, in relation to a controlled substance, has a substantially similar chemical structure. Therefore, 1-(3,4-methyldioxyphenyl)-3-butanamine is considered to be controlled under item 1(5) of Schedule III to the CDSA by virtue of being an analogue of MDA.

Recommendation: 1-(3,4-methyldioxyphenyl)-3-butanamine is included in item 1 of Schedule III to the CDSA and is considered to be a controlled substance.

July 9<sup>th</sup> 2010.

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<sup>1</sup>Kato, N. *et al.* (2008) Thin layer chromatography/fluorescence detection of 3,4-methylenedioxy-methamphetamine and related compounds, *J. Forensic Sci.* **53**:1367-1371.

<sup>2</sup>Bronson, ME. *et al.* (1994) Behavioral and developmental effects of two 3,4-methylenedioxymethamphetamine (MDMA) derivatives, *Drug Alcohol Dependence*, **36**:161-166.