Drug Status Report

**Drug:** 4-Methylmethcathinone

**Drug Name Status:** 4-Methylmethcathinone is the common name

**Other Names:** Mephedrone; 2-methylamino-1-p-tolylpropan-1-one

**Chemical Name:** 2-Methylamino-1-(4-methylphenyl)-1-propanone

**Chemical structure:**

![Chemical structures: 4-Methylmethcathinone, 4-Methylmethamphetamine, and Methcathinone](image)

**Molecular Formula:** C_{11}H_{15}NO

**Pharmacological class / Application:** stimulant

**International status:**

US: The substance is not currently listed on the US Controlled Substances Act and is not mentioned on the DEA website. However, 4-methylmethcathinone is controlled\(^1\) 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.” Although not listed specifically in item 1 of Schedule III, 4-methylmethamphetamine (structure above) is an amphetamine. 4-Methylmethcathinone is analogous to 4-methylmethamphetamine in that it contains the same structure with an additional oxygen. 4-Methylmethcathinone is therefore an analogue of 4-methylmethamphetamine and is included in item 1 of Schedule III to the CDSA.

A similar rationale was used to recommend that 2-methylamino-1-(3,4-methylenedioxy)-propiophenone be included in item 1 of Schedule III. That report is appended for information.

The substance is also structurally similar to 2-methylamino-1-phenyl-1-propanone (methcathinone) which is listed as item 21 of Schedule III to the CDSA.

Recommendation: 4-Methylmethcathinone is included in item 1 of Schedule III to the CDSA and is a controlled substance.

June 19, 2008
Drug Status Report

**Drug**: 2-Methylamino-1-(3,4-methylenedioxy)-propiophenone

**Drug Name Status**: 2-Methylamino-1-(3,4-methylenedioxy)-propiophenone is the common name

**Other Names**: Methylone; Explosion

**Chemical Name**: \(N,\alpha\)-Dimethyl-1,3-benzodioxole-5-(2-oxoethanamine)

**Chemical structure**:

- ![2-Methylamino-1-(3,4-methylenedioxy)-propiophenone](image)
- ![N-methyl-3,4-methylenedioxy amphetamine (MDMA)](image)
- ![Methcathinone](image)

**Molecular Formula**: \(C_{11}H_{13}NO_3\)

**Pharmacological class / Application**: stimulant

**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-methylenedioxy)-propiophenone 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-methylenedioxynamphetamine which is also known as MDMA and Ecstasy (structure shown above). 2-Methylamino-1-(3,4-methylenedioxy)-propiophenone is analogous to MDMA in that it contains the same structure with an additional oxygen.

2-Methylamino-1-(3,4-methylenedioxy)-propiophenone is therefore an analogue of MDMA and is included in item 1 of Schedule III to the CDSA. The hydrochloride salt has the same status.

The substance is also structurally similar to 2-methylamino-1-phenyl-1-propanone (methcathinone) which is listed as item 21 of Schedule III to the CDSA.

**Recommendation**: 2-Methylamino-1-(3,4-methylenedioxy)-propiophenone and its hydrochloride
salt are included in item 1 of Schedule III to the CDSA and are controlled substances.

May 8, 2007