**Mephedrone, MDPV and Methylone**

**Clinical Information**

MEDTOX Laboratories is excited to announce the addition of methylone to the current quantitative test designed to detect the use of the synthetic drugs mephedrone and methylenedioxypyrovalerone (MDPV). The addition of methylone to the current test panel is in-line with recent DEA enactments to schedule the three synthetic cathinones; 4-methyl-N-methylcathinone (mephedrone), 3,4-methylenedioxypyrovalerone (MDPV), and 3,4-methylenedioxy-N-methylcathinone (methylone), under the Controlled Substances Act (CSA) pursuant to the temporary scheduling provisions of 21 U.S.C. 811(h) as of October 21st, 2011.

The compounds have been found sold as bath salts, and plant food, and also have somewhat inappropriately been labeled as synthetic cocaine. All three compounds are purely synthetic, produced in clandestine laboratories as well as overseas. Their pharmacological activity is believed similar to the hallucinogenic stimulant MDMA. The drugs are generally abused by users under the age of 25 and are frequently associated with other rave or club drugs. The MEDTOX Laboratories test for mephedrone, MDPV, and methylone is a fully validated, quantitative test for detecting and measuring the compounds in urine down to concentrations of 1 ng/mL. The method utilizes a state of the art high, performance liquid chromatography – tandem mass spectrometry technique.

<table>
<thead>
<tr>
<th>Test #</th>
<th>2806</th>
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<tbody>
<tr>
<td>Synonyms</td>
<td>Meph, Drone, MCAT, ivory wave, bath salts, plant food, synthetic cocaine, bk-MDMA, explosion, ease</td>
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<tr>
<td>Category</td>
<td>Hallucinogenic Stimulants</td>
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<tr>
<td>Indication/Use</td>
<td>No known legitimate use</td>
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</tbody>
</table>

**Specimen Requirements**

- **Specimen**: Unpreserved Urine
- **Volume**: 3 mL
- **Handling**: Ambient shipping. Specimens should be stored refrigerated or frozen prior to shipping.

**Assay Parameters**

- **Methodology**: Liquid Chromatography with Tandem Mass Spectrometry (LC-MS/MS)
- **CPT Code**: 82542
- **Interpretation**: Mephedrone, MDPV, Methylone
  
  *Reporting Limit: 1.0 ng/mL*