1-(3,4-methylenedioxybenzyl)piperazine (MDBZP or MDBP)
Expert peer review on pre-review report

35th Expert Committee on Drug Dependence, Hammamet, Tunisia
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1. **Comment based on the review report**  
   Very little information is available for MDBZP. Data on medicinal effects, dependence, and epidemiology of use and abuse are lacking. Few data are available on the pharmacokinetics of MDBZP in rats. In a recently published review on piperazine compounds (Arbo et al. 2011; e-publication on internet), MDBZP was hardly addressed and additional information - not yet contained in the pre-review report - was not given.

   a. **Evidence on dependence and abuse potential**  
      There are no studies available to assess dependence potential and abuse potential of MDBZP.

   b. **Consequences to individual and society because of misuse**  
      Data are lacking. The consequences because of misuse can, therefore, not be assessed

   c. **Magnitude of the problem in countries (misuse, illicit production, smuggling etc)**  
      Probably very low. Only Mongolia reported clandestine production and smuggling

   d. **Need of the substance for medical (including veterinary) practice**  
     MDBZP does not have any evidence-based medical or veterinary use. In Mongolia, it is authorized as a medical or veterinary product, but no information is given on the medical indication for its use. It is unlikely that there is any need of MDBZP for medical or veterinary use at present.

   e. **Need of the substance for other purposes (e.g. industrial)**  
      No data.

   f. **Measures taken by countries to curb misuse**  
      Denmark, Japan, Mongolia, and Tuvalu have MDBZP under legislation to control availability.

   g. **Impact if this substance is scheduled**  
      MDBZP does not have any evidence-based medical use. In Mongolia it is authorized as a medical or veterinary product, but the medical indication for its use is not given. Based on this information, scheduling of MDBZP is unlikely to have any impact on human and animal medical care.

2. **Additional information to the pre-review report**

   For additional information, a search has been carried out in the databases of Medline, Web of Sciences, and Embase. Search terms: 1-(3,4-methylenedioxybenzyl)piperazine; 3,4-methylenedioxybenzylpiperazine; 1-piperonylpiperazine; piperonylpiperazine; and 1-(benzo[1,3]dioxol-5-ylmethyl)piperazine.
The recent review paper of Arbo et al. (2011) on piperazine compounds as drugs of abuse hardly addresses MDBZP, confirming the general lack of knowledge concerning MDBZP.

Reference

3. Other comments or opinions

MDBZP is the methylenedioxy derivative of 1-benzylpiperazine. In clinical studies, 1-benzylpiperazine appears to have stimulant properties (increase in heart rate and body temperature). Similar to the methylenedioxy derivatives of amphetamine and methamphetamine, analogous reasoning suggests that MDBZP as the methylenedioxy derivative of 1-benzylpiperazine is likely to be less active as a stimulant than 1-benzylpiperazine.

1-Benzylpiperazine also appears to have reinforcing effects in rats and rhesus monkeys (see review of Arbo et al. 2011). It is not known if MDBZP has similar effects in man.

4. Expert reviewer’s recommendation for the need for a critical review

A critical review is not recommended because of the lack of scientific studies and clinical data on the potential of MDBZP to produce dependence and abuse.