Expert Committee on Drug Dependence
Thirty-eighth Meeting
Geneva, 14-18 November 2016

Expert Peer Review No.2 for 4-Methylethcathinone (4-MEC)

1. Comments based on the review report
   a. Evidence on dependence and abuse potential
      Two drug discrimination studies have been performed. In one study 4-MEC did not substitute for methamphetamine at any dose tested. In the other study 4-MEC fully substituted for methamphetamine and cocaine but at much higher doses than methcathinone. Also in a conditioned place preference test 4-MEC showed effects comparable to methamphetamine but again higher doses were needed. And finally when testing intracranial self-stimulation the effects of 4-MEC were comparable to those of methamphetamine, α-PVP, MDPV and methylone, but again higher doses were needed.

      Information on dependence potential for 4-MEC is absent.
   
   b. Risks to individual and society because of misuse
      In the critical review report four fatal cases and a number of non-fatal cases have been described.

      Data estimating the risks to society are lacking.

   c. Magnitude of the problem in countries (misuse, illicit production, smuggling etc)
      The WHO questionnaire might give more information on this subject.

      Illicit distribution and abuse have been described for a number of European countries, the USA and Oceania. Also seizures have been described.

   d. Need of the substance for medical (including veterinary) practice
      None.

   e. Need of the substance for other purposes (e.g. industrial)
None.

f. Measures taken by countries to curb misuse
   According to the critical review report a number of European countries, Turkey, Russian Federation, USA, Singapore and New Zealand have brought 4-MEC under control.

g. Impact if this substance is scheduled
   None.

2. Are there absent data that would be determinative for scheduling?
   No. Data for 4-MEC pharmacology, abuse potential and risk to individuals are quite established.

3. Other comments or opinions
   None.

4. Expert reviewer’s view on scheduling with rationale
   The pharmacological activity of 4- MEC resembles both methamphetamine and 4-MMC (mephedrone) but it is less potent than these substances. Methamphetamine and mephedrone are both in Schedule II of the 1971 Convention.

   Animal studies have shown the abuse potential of 4-MEC.

   Furthermore there are some fatal intoxications.

   Therefore I would suggest to schedule 4-MEC in Schedule III of the 1971 Convention.