

Drug Status Report

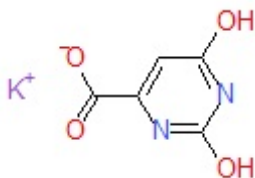
Drug: Potassium orotate

Drug Name Status: Potassium orotate is the common name

Chemical Name: 1,2,3,6-tetrahydro-2,6-dioxo-4-pyrimidinecarboxylic acid, , monopotassium salt

Other Names: Potassium 1,2,3,6-tetrahydro-2,6-dioxypyrimidine-4-carboxylate; Kalii orotas

Chemical structure:



Molecular Formula: C₅H₃N₂O₄K

Pharmacological class / Application: Growth promoter; anxiolytic; antidepressant

International status:

US: The substance is not listed on the schedules to the CSA 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. The drug is not listed on the Green List - List of Psychotropic Substances under International Control.

Canadian Status: Potassium orotate has been claimed in the literature to have anabolic

activity^{1,2,3} and display both anxiolytic⁴ and antidepressant⁵ effects. Potassium orotate is not specifically listed on the CDSA and is not similar to any substances listed in the Schedules to the CDSA. While potassium orotate is claimed to be anabolic, it is not a steroid or a derivative or a steroid and therefore cannot be included under Item 23 of Schedule IV “Anabolic steroids and their derivatives including”.

Recommendation: Potassium orotate is not included in the schedules to the CDSA and is not considered a controlled substance.

December 15th, 2009.

¹http://lekarstwo.ru/en/preparati/kalii_ortas.html

²Varshavskii, BY *et al.* (1974) Effect of potassium orotate on the transport of organic substances in the kidneys. Bull. Expt. Biol. Medicine **74**:150-152.

³Wing, JM. (1958) Effect of potassium orotate and methionine alone and with various antibacterial agents in a high colostrum diet for young calves. J. Dairy Sci. **14**:1290-1291.

⁴Karkishchenko NN and Khaitin MI (1986) Assay of the anxiolytic and nootropic effects of potassium orotate administered in a wide dose range. Farmakologiya I Tosikologiya **49**:14-16.

⁵Karkishchenko NN and Khaitin MI (1985) Comparative study of some parameters of antidepressant activity of potassium orotate and piracetam. Farmakologiya I Tosikologiya **48**:32-35.