

## **Nicotine LD50**

Page 40 lines 10 - 15

The median lethal dose of nicotine is referred to in the opinion as being 60mg (page 40 lines 10-15), which equates to 0.8mg/kg for oral ingestion, a figure that is considerably lower than the LD50 of nicotine for mice and rats. This is a highly contested figure and is based on data from over 100 years ago, obtained from questionable experiments. Assuming the figure is correct, which it is not, that would imply nicotine has a similar toxicity as cyanide, which we know is not the case. Mayer (2014) defined the median lethal dose of nicotine to be 20 times higher than the 60mg figure that is stated in the opinion. Since one of the main symptoms of nicotine intoxication due to ingestion is vomiting, it can be safely assumed that an even higher volume of nicotine would need to be consumed. The EU already has precautions in place, via the TPD, to prevent against nicotine intoxication, i.e. child-proof caps and a 20mg/ml upper nicotine limit for e-liquids.

1. Mayer, B. (2014) 'How much nicotine kills a human? Tracing back the generally accepted lethal dose to dubious self-experiments in the nineteenth century', *Archives of Toxicology*, 88(1), pp. 5–7. doi: 10.1007/s00204-013-1127-0