

Is this Failure of Government Agencies in Implementation of the Food Safety Laws?

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Abstract—Potassium bromate ($KBrO_3$) is an oxidizing agent that had been used as a food additive, mainly in the bread making process. It typically increases dough strength, leading to higher rising and uniform finishing of baked products. Potassium bromate is found to be carcinogenic in rats and nephrotoxic in both man and experimental animals when given orally. The active oxygen radicals generated from $KBrO_3$ were incriminate in its, toxic and carcinogenic effects especially because $KBrO_3$ produces 8 – hydroxygenanosine. A wide range data from applications of different analytical methods are now available for risk assessment purposes. In 2016, the FSSAI came up with a notification saying ‘use of potassium bromate as additive in any food is not allowed’. The lower cost of potassium bromate was major reason behind its abundant use, production costs are unlikely to go up thanks to alternatives like ascorbic acid. The central science and environment (CSE) came up with a study reporting presence of high levels of cancer causing additives in white bread, bun, and pizza base. These additives are banned in many countries and are considered unfit for human consumption.

In our study, various wheat flour samples of renowned brand were collected and tested for the presence of potassium bromate. The test result shows presence of potassium bromate in most of the samples in the range of 5-20ppm. Although, FSSAI has banned the use of potassium bromate as an additive in the food in 2016. There are chances that potassium bromate is being added in the wheat flour intentionally. The result shows failure of laws and regulations implemented by FSSAI.