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# Cancer-causing chemicals found in 527 Indian food items by EU food safety authorities

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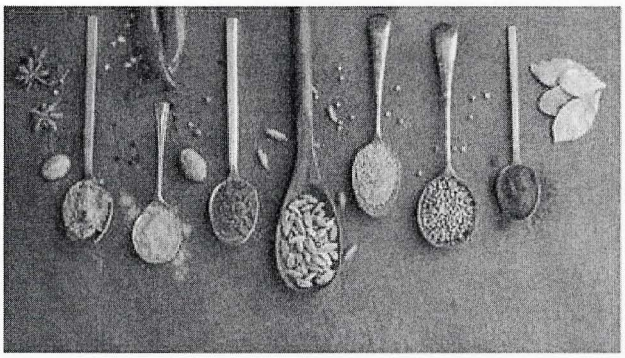


In a startling revelation, the European Union's food safety authorities have flagged the presence of cancer-causing chemicals in 527 food products originating from India. The issue came into the spotlight when renowned Indian spice brands, including MDH and Everest, were scrutinized for allegedly containing traces of ethylene oxide, a chemical, above the permissible levels. This led to a ban on these products in Hong Kong and Singapore, and now the European Union has followed suit, highlighting the widespread nature of this contamination.

This discovery has raised significant concerns about the safety standards of exported food items and the potential health risks they pose to consumers. Ethylene oxide is not approved for use in food at the EU level, and its detection has led to 87 consignments being rejected at the border, with many others removed from the market. Of the 527 items flagged, 525 were food items and 2 were feed items. 332 items had India tagged as the sole country of origin while the rest were tagged with other countries.

The European Food Safety Authority (EFSA) conducted tests on various food items between September 2020 and April 2024. The products tested included a wide range of categories, with the majority being nuts and sesame seeds (313), herbs and spices (60), dietetic foods (48), and other miscellaneous food products (34). The tests revealed that a significant number of these products contained ethylene oxide, prompting the EU to take action.

Ethylene oxide: The cancer-causing chemical agent

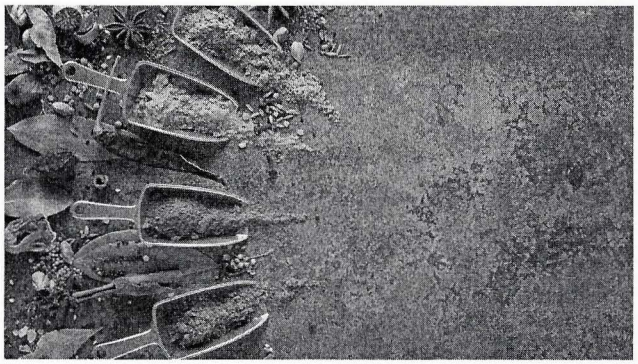
Ethylene oxide is a colorless gas commonly used as a pesticide and sterilizing agent. It was originally intended for sterilizing medical devices but has found its way into the agricultural sector. The International Agency for Research on Cancer (IARC) classifies ethylene oxide as a Group 1 carcinogen, indicating that it is carcinogenic to humans.

The presence of ethylene oxide in food products is particularly concerning because it can lead to the formation of ethylene glycol, a byproduct that has been linked to the deaths of children in Africa due to its presence in cough syrups. The EU has set a limit of 0.1 mg/kg for ethylene oxide, but the levels found in the Indian products exceeded this threshold1.

Exposure to ethylene oxide is associated with an increased risk of various cancers, including lymphoma and leukemia. The chemical's ability to damage DNA makes it a potent carcinogen, and its effects can be both immediate and long-term. The risk is not limited to direct consumption; even handling contaminated products can pose a health hazard.

The response from Indian authorities

In response to the European Union's findings of cancer-causing chemicals in Indian food products, the Food Safety and Standards Authority of India (FSSAI) has taken proactive measures to address the concerns raised. The FSSAI has initiated comprehensive quality checks on the implicated spices and other food products to ensure they meet safety standards.



The FSSAI's actions reflect a broader commitment to food safety and public health. Recognizing the potential risks associated with ethylene oxide, a chemical found in excess in several Indian food products, the FSSAI is exploring safer alternatives for food sterilization and preservation. One such alternative is gamma ray treatment, which offers a non-chemical method of eliminating pathogens and pests in food products.

Gamma ray treatment: A safer alternative to ethylene oxide?

Gamma ray treatment, also known as food irradiation, is a process where food is exposed to controlled doses of ionizing radiation. This technology is effective in reducing or eliminating microorganisms and insects, thereby enhancing food safety and extending shelf life without compromising the food's nutritional value or taste. It is a recognized and approved method by international food safety agencies, including the FDA and the World Health Organization.

The FSSAI's consideration of gamma ray treatment aligns with global trends towards adopting non-chemical methods for food safety. This approach not only addresses the immediate concerns of chemical contaminants but also contributes to long-term sustainability and health safety.

Moreover, the FSSAI has issued guidance documents for the industry on adopting a Hazard Analysis Critical Control Point (HACCP) approach, which is a systematic preventive approach to food safety. This includes the development of the Guidance document on Food Safety Management System (FSMS) for Spice Processing, which outlines the necessary steps to ensure the safety and quality of spices

The detection of cancer-causing chemicals in such a large number of food products is a wake-up call for the Indian food industry. It underscores the need for stringent quality control measures and the adoption of safer processing methods. As consumers become increasingly aware of the health implications of the food they consume, it is imperative for food producers to ensure that their products are not only delicious but also safe for consumption.

The EU's findings serve as a reminder that food safety is a global concern, and it is the collective responsibility of producers, regulators, and consumers to ensure that the food on our plates does not come at the cost of our health.