ELIMINATION OF STREPTOMYCIN RESIDUES IN HIGH FRUCTOSE SYRUP AND VISCOUS SPIRITS USING ION CAPTURE	
Offering Organization:	Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C.
Type of Organization:	Public Research Center
Development Stage:	Laboratory
Desired Relationship:	– Technological research and development financing (technological partner) – Specialized application tests – Creation of a new company (Joint Venture) for the commercialization of the products outlined herein Licensing of patents
Sector:	Food
Area of knowledge:	Food Technology
Key words:	Streptomycin disposal, streptomycin residues, elimination, syrup, liquor, ion capture

DETAILED DESCRIPTION:

Problem to be solved:

International trade penalizes the presence of antibiotic residues in foodstuffs intended for human consumption as the consumer ingests an unwanted drug that can trigger allergies, even in small doses, and cause selection of resistant strains of human pathogens. As a result controls on antibiotic residues are becoming more stringent.

Solution:

This invention describes a simple process of ionic capture, a process through which streptomycin residues are eliminated from high fructose syrups and/or glucose, and viscous liquors contaminated with this antibiotic.

New and Innovative Aspects:

This process successfully reduces the concentration of streptomycin in viscous syrups and in contaminated substances from more than 100 ppb (parts per billion) to less than 10 ppb. The syrup does not show visible changes in color, smell, or taste.

TECHNICAL CHARACTERISTICS:

This invention describes a method for using an ionic capture procedure to eliminate antibiotic residues, specifically streptomycin, from high fructose syrups and/or glucose, and contaminated viscous liquors. The resin used must be ground to ensure optimum contact with the syrup during the stirring process. Streptomycin resin complex is removed by filtration after pre-heating the syrup-resin mixture. The results obtained demonstrate that it is possible to remove more than 100 ppb from streptomycin-contaminated syrups and liquor sources.

Main advantages derived from its utilization:

- The results obtained demonstrate that it is possible to remove more than 100 ppb from streptomycin-contaminated syrups and liquor sources.

– The syrup does not show visible changes in color, smell, or taste.
Applications: – Processing of foodstuffs.
INTELLECTUAL PROPERTY
– Patent granted in 2009, valid until 2024.

ABOUT THE OFFERING ORGANIZATION	
Presentation:	El Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C. (CIATEJ) es un Centro Público de Investigación perteneciente a la red de centros de desarrollo e innovación tecnológica del Consejo Nacional de Ciencia y Tecnología (CONACyT). Enfocados a los sectores agrícola, alimentario, salud y medio ambiente con énfasis en la aplicación innovadora de la biotecnología.
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