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CCTA Position Paper on the Safety of Edible Collagen Casings

With a worldwide focus on food safety it is important that all food manufacturers can provide the appropriate assurance that their products are fit for human consumption. Such assurance depends on an ability to demonstrate that products are produced from safe raw materials using safe processes. The Collagen Casings Manufacturers represented by their Trade Association (CCTA) are committed to ensuring that their products are safe.

Raw Materials

All CCTA members source their collagen raw material for casings from animal hides only. This is predominantly bovine hide, although some porcine hide may also be used.

Concerns about the risk to human health prompted by the issue of BSE in cattle have seen a proliferation of worldwide legislation. Subsequent risk management imposed has been extremely effective in reducing the global incidence of BSE.

In addition to this, independent scientific research and analysis have resulted in bovine skin collagen being listed as a tissue free of BSE agent. Supporting documentation can be found as follows:

1. The Opinion And Report On Safety With Respect To TSE Risks Of Collagen Produced From Ruminant Hides was adopted by the European Commission Scientific Steering Committee at its meeting of 10-11 May 2001.

This report concluded that “***on the basis of current knowledge it can be considered that the parts of ruminant hides used for the production of collagen do not present a risk with regard to TSE's - - - -***”

http://ec.europa.eu/food/fs/sc/ssc/out204_en.pdf

2. The OIE (Office International des Epizooties – World Veterinary Organisation for Animal Health) have a chapter on BSE in their International Health Code (chapter 2.3.13). It states that “***when authorising import or transit of the following commodities and any products made from these commodities and containing no other tissue from cattle, Veterinary Administrations should not require any BSE related conditions, regardless of the BSE risk status of the cattle population of the exporting country, zone or***

compartment - - - (c) hides and skins - - - (d) collagen prepared exclusively from hides and skins”.

http://web.oie.int/eng/normes/mcode/en_chapitre_1.11.5.htm

3. A report of a WHO (World Health Organisation) consultation on medicinal and other products in relation to human and animal Transmissible Spongiform Encephalopathies, commissioned to categorise infectivity in bovine tissues, placed bovine skin collagen into “**Category IV**” with “**no detectable infectivity**”. [WHO/EMC/ZOO/97.3]

<http://www.who.int/biologicals/publications/en/BTSE97mar24.pdf>

4. A recent Opinion Of The Scientific Panel On Biological Hazards Of The European Food Safety Authority (EFSA) On The BSE Risk From Cohort Animals: Bovine Hides And Skins For Technical Purposes, adopted on 18 May 2006, confirmed that “**so far infectivity has never been found in cattle hides**”.

This establishes that bovine material used for the manufacture of edible collagen casings is intrinsically safe, irrespective of the BSE status of the animal. In addition, all countries in which CCTA members manufacture also have appropriate measures in place to ensure that affected cattle do not enter the food chain.

http://www.efsa.europa.eu/EFSA/efsa_locale-1178620753812_1178620775722.htm

Processes

Although all the CCTA member companies have slight differences in their manufacturing processes, there are common elements. In all companies, casings are produced by a process that involves washing, pH adjustments using acid and alkali, rinsing, comminution, filtration and extrusion.

The alkali step is critical in the overall process. Notwithstanding the above mentioned independent scientific confirmation regarding the safety of skin collagen, several independent studies have concluded that a significant reduction in BSE infectivity is achieved following exposure of infected connective tissue to alkali.

In 1992 “Public Health Issues Related To Animal And Human Spongiform Encephalopathies “ – Bulletin of the WHO – (pages 183-190) a discussion is presented regarding BSE where alkali treatment is recommended as a manufacturing process for removal or reduction of BSE infectivity. This was following a dwell time of 1 hour at 20 degrees C with 1M sodium hydroxide solution. The dwell time in alkali for hides used in the manufacture of collagen for

human consumption is measured in days or weeks. This represents a further significant risk reduction of any potential infectivity.

In addition, the microbiological bioburden of the final product is very low due to the nature of the manufacturing process. Wide swings in pH and hot air drying result in a very safe product with a long shelf life.

As a final confirmation of their safety, products are subject to appropriate levels of sampling and independent analysis.

Summary

This position paper contends strongly for the safety of all edible collagen from the member companies of the CCTA. This is based on the foundation of inherently safe raw materials, coupled with safe processes, producing safe final products.

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