



Alicyclobacillus detection with IFU Method N° MM12

Since the early 1980s, when spoilage of fruit juices by acid dependent thermotolerant spore forming bacteria was first recognized, members of the genus *Alicyclobacillus* have emerged as food spoilage organisms of major significance to the fruit juice industry.

Spoilage is generally manifested as the formation of off flavours and odors from compounds such as guaiacol. The economic impact of such incidents can be very high.

Alicyclobacillus can be difficult to control in fruit juice products as their spores survive juice pasteurization temperatures and may subsequently germinate and grow after processing if conditions are suitable. The spoilage strains of alicyclobacilli grow from around pH 2.5 to 6 and at temperatures above 20 °C.

Alicyclobacillus acidoterrestris is the most commonly occurring species .

The IFU Working Group on Microbiology took the initiative to develop an internationally acceptable method for the detection and enumeration of taint producing *Alicyclobacillus* so that realistic microbiological criteria and specifications can be developed. This has resulted in IFU Method N° MM12, for the detection and enumeration of spore-forming thermo-acidophilic bacteria (*Alicyclobacillus* spp.).

Neutron Proposal:

Neutron, through the analyses below, offers the possibility to verify the presence/absence of *Alicyclobacillus* spp., to quantify it numerically and to verify in both qualitative and quantitative analysis whether it produces Guaiacol. Neutron follows the IFU Method N° MM12 of 2019.

Detection of spore-forming thermo-acidophilic bacteria (*Alicyclobacillus* spp.) in 10g

Detection of spore-forming thermo-acidophilic guaiacol-producing bacteria (*Alicyclobacillus* spp.) in 10 g

Enumeration of spore-forming thermo-acidophilic bacteria (*Alicyclobacillus* spp.)

Enumeration of spore-forming thermo-acidophilic guaiacol-producing bacteria (*Alicyclobacillus* spp.)

For more information contact us: www.neutron.it