BIOFILM CONTROL

DETECTION, REMOVAL, VERIFICATION SERVICE AND PREVENTION OF BIOFILMS ON SURFACES

RAPID AND SELECTIVE DETECTION

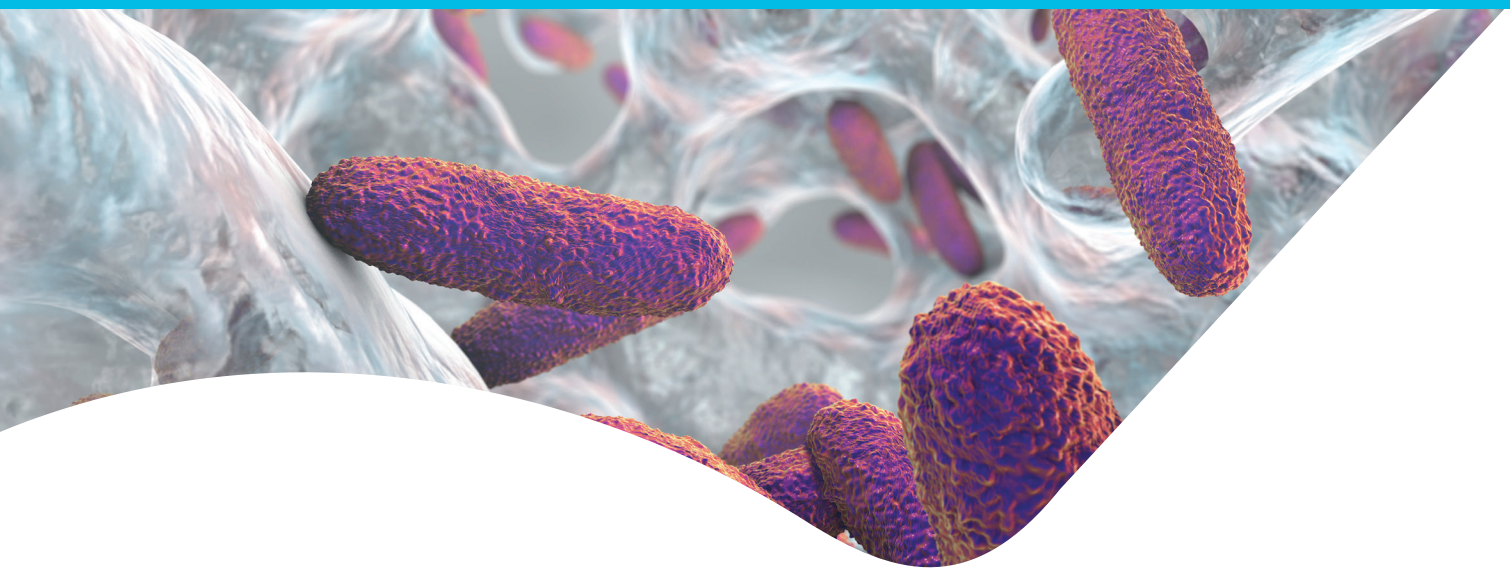
EASY TO USE AND RINSE

BIOFILM MATRIX REMOVAL

HIGH BIOCIDAL CAPACITY AND BROAD SPECTRUM

FEEL SAFE WITH US

CHRISTEYNS
FOOD HYGIENE



ALL YOU NEED TO KNOW ABOUT BIOFILM CONTROL

The presence of biofilms in food processing installations represents a great risk for food safety and may also cause operational problems in the equipment. Biofilms provide a protective function to the microorganisms that they host, decreasing the efficacy of disinfection treatments.

WHAT IS A BACTERIAL BIOFILM?

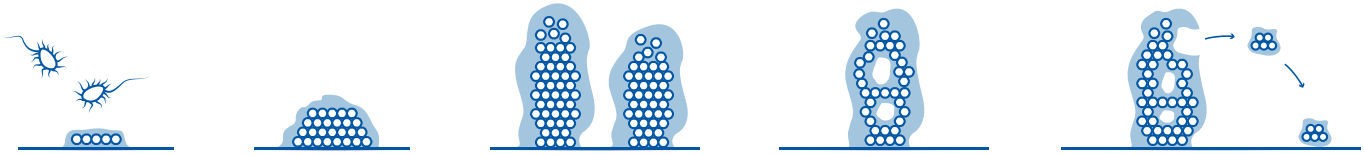
A biofilm consists of colonies of microorganisms linked together and attached to a solid support, which provides them with stability, nutrients and protection. It consists of microbial cells surrounded by a matrix formed by extracellular polymeric substances (EPS) such as proteins and polysaccharides.

A biofilm facilitates the proliferation of microorganisms by providing them with a protected, moist and nutrient rich environment. The sticky, dense and very viscous matrix represents a physical defense that protects microorganisms very effectively against external agression.

COMPOSITION OF A BIOFILM

Biofilms are often formed by several microbial species like bacteria, molds, algae, etc. They develop on surfaces that favour their adhesion (porous, scratched or rough surfaces) and that have been subjected to a poor cleaning and disinfection program.

The formation of a biofilm is always a consequence of insufficient sanitation and hygiene.



1. Adhesion: with the right conditions, microorganisms are placed on the surface and adhesion between microorganisms and surface begins.

2. Colonization: The adhesion of the microorganisms forms colonies.

3. Formation: Cell to cell contact is stronger and mature microcolonies develop.

4. Growth: The formation of a mature biofilm with interstices with water, favours the colonisation of the system.

5. Dispersion: Detachment of biofilm fragments and their adhesion to other surfaces, making it easier to expand the biofilm.

BIOFILM CONTROL

The use of systems to control the presence of microbiological contamination is essential for the food industry as well as having the results in a short time to quickly implement action protocols if necessary.

At CHRISTEYNS we have an integral biofilm control service in four phases in which we locate the training points to apply the most effective solutions.

01
DETECTION

02
REMOVAL

03
VERIFICATION

04
PREVENTION

BIOFILM PRESENCE DETECTION

TBF® 300

A rapid-simple-specific system for controlling the presence of any type of biofilm on surfaces.

TBF® 300 is a patented product that has been developed by CHRISTEYNS in collaboration with Madrid Complutense University.

- **FAST:** Results in a few minutes.
- **EASY:** Colorimetric kit that does not require specialised personnel or complex equipment.
- **SELECTIVE:** The reagent selectively interacts with the biofilm polymer matrix avoiding the risk of false positive.

INSTRUCTIONS FOR USE

1. Spray the reagent on the sample surface (about 10 cm^2).

2. Leave for at least 5 minutes.

3. Rinse the treated surface with water.

4. Inspect the treated surface: a presence of colored areas indicates the presence of a biofilm.

5. At the end of the test, rinse the treated surface well to remove any trace of the reagent.

REMOVING A BIOFILM

Removing a biofilm from a surface is very difficult but not impossible when you have an adequate sanitation procedure. By using special detergents capable of breaking and disintegrating the polymer matrix, the active compound of a broad spectrum biocide can penetrate within the viscous mass and interact with all the different microbial species present, causing the death of the microbial cells.

Please consult with your local CHRISTEYNS representative to find the best solution for your particular situation.

MIDA® SAN 327 BF

MIDA® SAN 328 EC

Chemical removal with disinfectants:
MIDA® SAN 327 BF and MIDA® SAN 328 EC are part of a range of products with biocidal properties, designed for removal of biofilms from surfaces.

MIDA® FOAM 152 SA

MIDA® ADD 409 AG

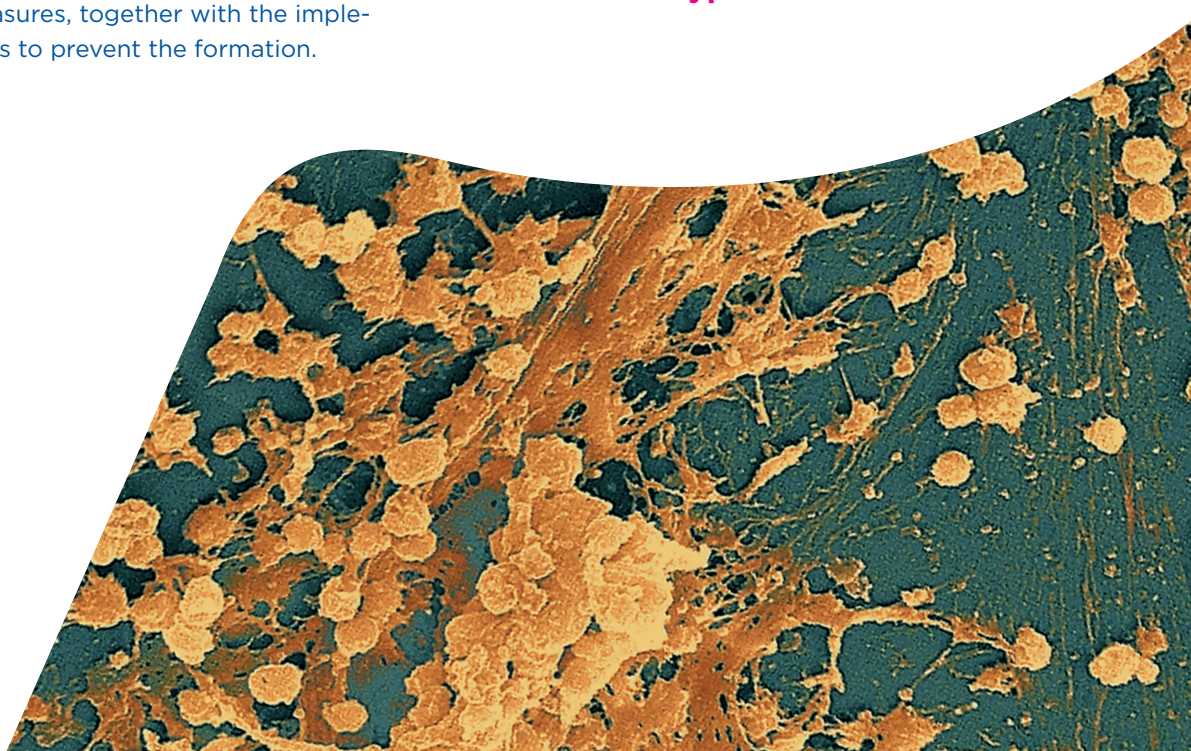
Enzymatic removal:
It is recommend the mix of the detergent MIDA® FOAM 152 SA with the enzymatic additive MIDA® ADD 409 AG to degrade the biofilms matrix.

* In some cases it is advisable to carry out a disinfection after the stage of elimination of the biofilm matrix.
** Use biocides safely. Always read the label and product information before use.

VERIFICATION AND PREVENTION

At CHRISTEYNS we offer advice to verify and prevent the formation of biofilms. We review the results and confirm the control measures, together with the implementation of procedures to prevent the formation.

R&D applied to the control of all types of biofilms

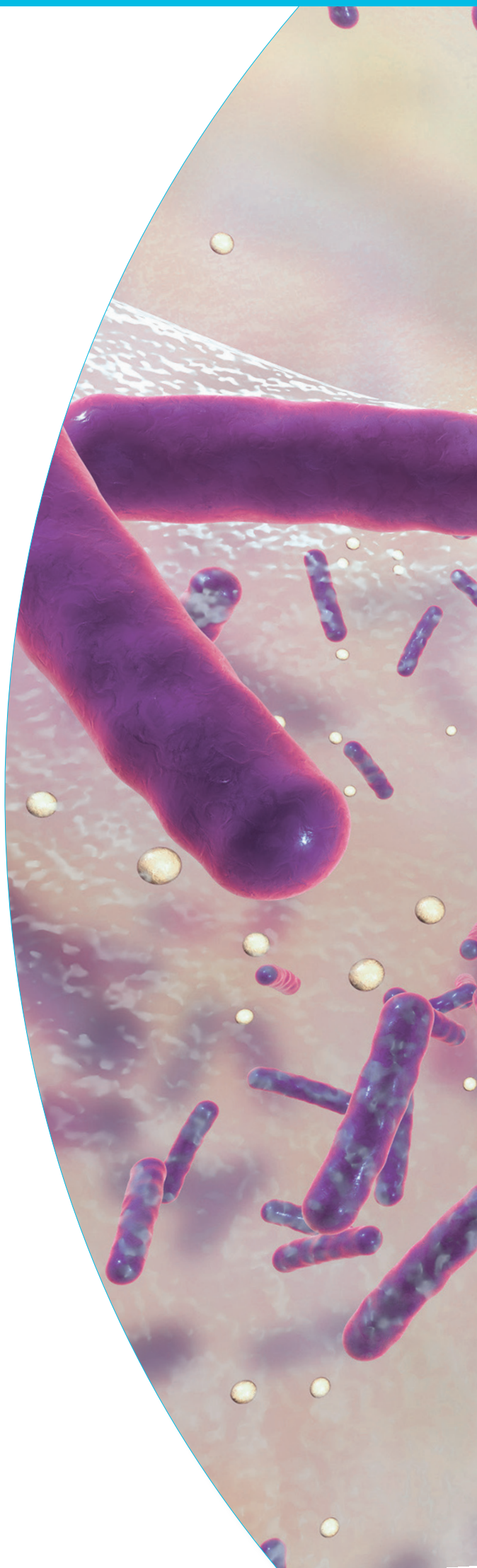


TECHNICAL INFORMATION

DETECTION PRODUCTS	
	TBF® 300
Appearance	Foam - magenta
Characteristics	Suitable for smooth horizontal and vertical surfaces
Storage	5 °C - 25 °C
Packaging	Box with 3 units of 125 ml

ENZYMATIC PRODUCTS		
	MIDA® FOAM 152 SA	**MIDA® ADD 409 AG**
Appearance	Slightly yellow transparent liquid	Slightly yellow transparent liquid
Characteristics	Foaming detergent with moderate alkalinity	Polyenzymatic concentrate for degradation of biofilm matrix
Storage	5 °C - 35 °C	5 °C - 35 °C
Packaging	Canister 20 kg / IBC 1.000 kg	Canister 20 kg / IBC 1.000 kg

CHEMICAL PRODUCTS		
	MIDA® SAN 327 BF	**MIDA® SAN 328 EC**
Appearance	Slightly yellow transparent liquid	Slightly yellow transparent liquid
Characteristics	Foaming product Preventive and shock treatment	Non foaming product Preventive and shock treatment
Storage	5 °C - 25 °C	5 °C - 25 °C
Packaging	Canister 21 kg / IBC 1.000 kg	Canister 21 kg / IBC 1.000 kg



MORE INFORMATION

Contact your local **CHRISTEYNS** rep to help you find a solution that fits your personal situation.

CHRISTEYNS

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