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Staph aureus / Hand & Surface Hygiene Monitoring Swab

Staphylococcus aureus is a well-known problem organism in the food, dairy and medical environments. **S.aureus Hygiene Monitoring Swabs** have been designed as a **tool** for **detecting and monitoring for *S.aureus*** on surfaces, hands and in substances.

Furthermore, because of different reactions of bacterial species to the media used in the swabs, the **S.aureus Hygiene Monitoring Swab** can also be used effectively as a **general hand and surface hygiene swab**.

An independent study was conducted on the media used in the swabs [1] and the researchers found for all *S.aureus* cultures they were **easily identifiable** by the mauve colour they turned. *Staphylococcus epidermidis* is one of the most common natural organisms occurring on the skin. In the research it was found that several of the *S.epidermidis* cultures had small white colonies and turned the media mauve. Other important contaminants such as *Listeria monocytogenes* had blue colonies.

Micro Food Lab also conducted some in-house tests on the swabs. They were tested for sensitivity against known amounts of *S.aureus* and *S.epidermidis* in an inoculum. The results of the sensitivity of the swabs are listed in the table below:

Number of S.aureus bacteria	S.aureus results		Number of S.epidermidis bacteria	S.epidermidis results	
	24 hr	48 hr		24 hr	48 hr
133	100%	100%	1200 – 2500	0%	75-85%
67	70%	100%	250 – 500	0%	40%
7	30%	90%	165	0%	5%

The results show that the swabs are sensitive enough to **detect less than 10 *S.aureus***, and are 100% accurate at detecting 100 *S.aureus*. The presence of *S.aureus* will start showing after 24 hours (at less sensitivity) and be confirmed after 48 hours.

The naturally occurring skin organism *S.epidermidis* will not show up on the swabs after 24 hours, but will after 48 hours. Furthermore, the swab is less sensitive for this organism than for *S.aureus*, detecting higher numbers of bacteria. This makes it **ideal for monitoring hand hygiene**, as one can expect *S.epidermidis* on hands at low levels at most times, however, if the hands are not washed correctly, this organism will be detected at the higher numbers that will be present. Furthermore, the swabs are able to presumptively **differentiate** between *S.aureus* and S.epidermidis due to *S.aureus* being detected sooner.

The **affordability**, **sensitivity** and **speed** at which a result is obtained makes this swab an **effective tool in detecting *S.aureus*** in an environment. All this allows a **fast response time** to a potential contamination problem. If used to **monitor** an environment, it is an **effective risk management tool** for both *S.aureus* contaminations and general hygiene.

1. Journal of Clinical Microbiology. Apr 2000; 38(4): 1587–1591.