

	<b>Technical Information</b>	<b>730-155-EN</b>		<b>V03</b>
	<b>GKE Steri-Record® Stearo-Ampoules do NOT require negative control ampoules just containing growth media</b>	Created	21.08.2018	HeK
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GKE manufactures and sells Stearo-Ampoules to monitor steam/hot water sterilization processes (liquids). The ampoules include both the spores of *Geobacillus stearothermophilus* and the growth medium, which has been optimized not only for their germination and growth, but also for temperature stability of the growth solution.

The product is not only used to monitor liquid sterilization processes, but also to sterilize waste mainly from S2 laboratories, hospitals or industry, which are treated according to §18 of the IfSG (see also GKE TI 730-105-EN Sterilization of contaminated waste).

The Stearo-Ampoule packages of other manufacturers often contain so-called "**negative controls**", which the user should also put into the same sterilization process. These "**controls**" only contain growth medium without no spores and are only intended to show whether a colour change of the growth medium occurs from heat treatment and not by spore growth. With prolonged and higher temperature exposure, the medium gets also yellow because the sugar inside produces acids getting a lower pH, as it should only be the case by the growth of spores during incubation.

Such compositions of the growth medium from other suppliers may show colour change in sterilization processes without spore growth. GKE has optimized its growth medium so that no color change occurs of the growth medium alone, so that "**negative controls**" are not necessary when GKE Steri-Record® Stearo Ampoules are used.

Biological indicators are inactivated at 134 °C within 1 minute at the latest. If GKE Steri-Record® Stearo-Ampoules actually show a colour change to yellow, this is an indication of the growth of the spores.