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Product Information

68061 Anaerob atmosphere generation bags

Description
Where an anaerob atmosphere generation bag is placed in a sealed jar, the atmospheric oxygen in the jar is rapidly absorbed with the simultaneous generation of carbon dioxide. This novel method differs from those commonly used in that the reaction proceeds with no evolution of hydrogen, and therefore does not require a catalyst. Furthermore, no addition of water is needed to activate the reaction.
When used as directed, an anaerob atmosphere generation bag will reduce the oxygen level in the jar to below 1% within 30 minutes. The resulting carbon dioxide level will be between 9% and 13%.
Anaerob atmosphere generation bags were used in methodology for detecting bifidobacteria in meat and meat products in an investigation into the suitability of these organisms as indicators of faecal contamination.

Components
Each box contains 10 paper sachets which are individually foil packed.
The active component within each anaerob atmosphere generation bag is ascorbic acid.

Precautions
This product is for **in-vitro** use only.
As soon as the paper sachet is exposed to the air, the reaction will start. It is therefore essential that the paper sachet is placed in the jar and the jar sealed within one minute.
The reaction of the ascorbic acid with oxygen is exothermic. However, the temperature of the AnaeroGen paper sachet will not exceed 65°C.

Storage
Store at 2-25°C. Under these conditions, the anaerob atmosphere generation bags will retain their reactivity until the expiry date declared on the outer box and on the foil sachet.

Directions
These anaerob atmosphere generation bags are designed for use in 2.5 litre jars such as the Anaerobic Jar, product no 28029.

1. Place the inoculated media plates in the appropriate anaerobic jar. Disposable plastic petri dishes should be of the vented variety to aid gas transfer between the interior and exterior of the plates.
2. Tear open a foil bag at the tear-nick indicated, and remove the paper sachet from within.
3. Immediately place the paper sachet in the appropriate clip on the plate carrier within the jar.
   Important note: The paper sachet will become warm to touch on exposure to air.
4. Close the jar lid immediately.
   Important note: The time taken between opening the foil sachet and sealing the jar should not exceed 1 minute. Extended exposure will result in loss of reactivity, and full anaerobic conditions may not be achieved in the jar.
5. After the appropriate incubation period remove the plates and examine for the presence of anaerobes. If the plates require re-incubation then a fresh anaerob atmosphere generation bag sachet must be used following steps 2-5 described above.
6. After incubation, the exhausted sachets should be discarded with the appropriate laboratory waste.

Control Testing
It is recommended that an Anaerob Indicator Test (product no 59886) is also used in the jar as a visual check that anaerobic conditions have been achieved and maintained. The Indicator Test is cutted and 10mm of the fabric strip are exposed. The anaerobic indicator will change from pink to white giving a visual indication of anaerobiosis.
The user should check their Anaerobic system periodically for its ability to provide adequate conditions for the growth of appropriate bacteria. The following strains are recommended:
Clostridium novyii ATCC® 9690 growth
Micrococcus luteus ATCC® 9341 no growth

Disposal
On removal from the jar after incubation, the paper sachet will retain a small amount of reactivity and will warm up. The sachets should therefore be allowed to cool at room temperature prior to disposal alongside the appropriate laboratory waste.

Reference
Beerens H. (1998) *Int. J. Food Microbiol*. 40. 203-207.