

## INTENDED USE

Microbank™-Dry is a sterile vial containing porous beads which serve as carriers to support microorganisms.

## SUMMARY AND EXPLANATION

Long term storage of microorganisms is a challenge in routine microbiology. Organisms should be stored at low temperatures utilizing a mechanical technique that offers the least possibility of disturbance, yet, permits ready access to stored material. Microbank™-Dry offers a solution to this problem.

## DESCRIPTION

Individual coloured beads are packaged approximately 25 beads in a cryovial. The beads are washed and are of a porous nature allowing microorganisms to readily adhere onto the bead surface. After addition of a cryopreservative and inoculation, the cryovials are kept at -70°C for extended storage. When a fresh culture is required, a single bead is easily removed from the vial and used to directly inoculate a suitable bacteriological medium.

## PROCEDURE

### A. PREPARATION

1. Cryopreservative is prepared, based on the customer's formulation, and sterilized.
2. Under aseptic conditions, transfer 1 ml of sterile cryo-preserved into each of the required number of Microbank™-Dry cryovials.
3. Ensure the caps of the vials are closed tightly.

### B. INOCULATION OF VIALS

1. Using a permanent marker, code the vial as desired, one organism per vial to be inoculated. (See also step 6.)
2. Under aseptic conditions open the screw cap cryovial.
3. Inoculate the cryopreservative fluid with young colonial growth (18-24 hours) picked from a pure culture to approximately a 3-4 McFarland standard.
4. Close vial tightly and invert 4-5 times to emulsify organism. DO NOT VORTEX!
5. At this point the microorganisms will be bound to the porous beads. The excess cryopreservative should be well aspirated leaving the inoculated beads as free of liquid as possible. Close the vial finger tight.
6. Record the inoculation coding on the printed Microbank™ Storage Box lid or any other suitable recording system of choice.

7. Store the inoculated cryovial at -70°C for best long term results.

### C. RECOVERY

1. Under aseptic conditions, open the cryovial and using a sterile needle or forceps remove one coloured bead. Close the vial finger tight and return as soon as possible to low temperature storage. Excessive changes in temperature reduce the viability of the organisms.
2. The inoculated bead may then be used to directly streak on to solid medium or may be dropped into an appropriate liquid medium.
3. When used as recommended, each cryovial will store approximately 25 identical potential cultures.

## LIMITATIONS

1. Microbank™-Dry is offered solely as a means of providing extended storage possibilities for organisms.
2. In use, aseptic technique should be practiced to ensure continued integrity of the stored microorganism.
3. Microbank™-Dry should not be used if any of the following conditions are present before inoculation:
  - a. the vial shows any evidence of damage which would indicate loss of integrity.
  - b. the expiry date on the outer label has elapsed.
4. After removal, beads should not be returned to the cryovial for any reason.
5. Microbank™-Dry is supplied in a variety of colours. These colours do not imply any change in the product function. They are provided only for colour coding convenience.

## SAFETY PRECAUTIONS

1. A microbiological safety cabinet should be used when making and manipulating a heavy suspension of a culture.
2. Observe biohazard precautions when discarding used or partly used cryovials.
3. When storing Microbank™-Dry in liquid nitrogen after inoculation, the following precautions should be taken:
  - a. Ensure that the cryovial screw cap is tightened normally: over-tightening may cause distortion of the silicone O-ring in the cap which may cause leakage.
  - b. Ensure that the thread of the cryovial and screw cap is completely dry before closing: liquid drops will impair the seal in liquid nitrogen.
  - c. All Microbank™-Dry vials should always be stored in the gas phase, above liquid nitrogen. If immersed, they might develop leaks or even shatter when returned to

- a. room temperature.
- d. When removing vials from liquid nitrogen containers, always use safety equipment such as gloves, hoods, face shields etc...

## PRESENTATION









Microbank™-Dry is supplied in ready to use storage boxes of 80 vials.

## STORAGE

Before use, unused Microbank™-Dry may be stored at 4°C or at room temperature. Stored under these conditions Microbank™-Dry may be used up to the date of expiry shown on the product label.

## REFERENCES

1. White and Sand, R.L. 1985. Medical Laboratory Sciences **42**:289-290 (U.K.)
2. Feltham et al. 1978. Journal of Applied Bacteriology. **44**:313-316.
3. Nagel, J.G. & Cunz, L.J. 1971. Applied Microbiology. **23**(4):837-838.

	= Use by
	= Lot number
	= Catalogue number
	= Manufacturer
	= Authorized Representative in the European Community
	= Temperature limitation
	= Consult instructions for use
	= Sterilization using irradiation