

DIRECTIONS

1. Unscrew cap and carefully withdraw the slide from the vial. **(do not touch the agar coated surface of the slide)**
2. **Dip the slide in the fluid sample** so that the agar surfaces are totally immersed. **Agitate the slide back and forth for 3-15 seconds.**
3. Withdraw the slide from the sample and **allow excess fluid to drain from the slide.**
4. Return the slide to the container and **lightly screw the cap back on before backing it off ½ turn.**
5. Incubate the vial in an upright position at **25-36°C (77-96.8°F)** depending on the organism of interest and/or the in-house protocol (recommended: 24-48 hours for bacteria, up to 5 days for fungi)

INTENDED USE

Dipslides are used to monitor microbial presence in industrial and process aqueous fluids. The test can be performed on-site. The results of these tests can assist in the correct usage of biocides in industrial processes.

OVERVIEW

The nutrient agar, present on at least one side of all slides, supports the growth of non-fastidious bacteria. Many types of bacteria reduce the triphenyltetrazolium chloride (TTC) that is present on the media. The reduced TTC forms a red color, which shows the bacterial colonies as **red dots**. Some bacteria, however, do not reduce TTC and will therefore remain colorless. The agar on the second side is selective for Gram negative organisms or fungi (Rose Bengal agar MALT extract agar).

RESULT INTERPRETATION

A. Bacteria (nutrient agar-transparent media)

Bacteria grow as either red or colorless colonies. To determine the number of colony forming units (CFU), **compare the density of the colonies on the dipslide with the chart below.** Colorless colonies should be included in the comparison. It is the number of colonies and not their size that is important. Microbial counts $>10^7$ may appear as uniform pink or red layer; a dilution is required to obtain an accurate count on such samples. **Solutions with $<1,000$ CFU/ml may not show any colony growth.**

TO DILUTE THE SAMPLE-Boil a known volume of tap water in a clean container and allow to cool. Add a known volume of the sample to the boiled, cooled water. Cap the container and mix. Follow the **Directions for Use**. Take the dilution factor into account when estimating microbial counts. For example, a 10^5 count from a 100 times dilution (1 mL sample + 99 mL water) would indicate 10^7 CFU/ml in the original sample.

B. Fungi (MALT Extract Agar (brown) or Rose Bengal agar (pink) media)

The **brown** or **pink** side will detect the presence of fungi. Record the growth and type when first seen, but continue to incubate for 4 to 5 days for good evaluation of fungi contamination. **To estimate yeast levels, compare yeast growth to the yeast colony density chart below.** Mould is reported as light, moderate, or heavy.



Figure 1
Values shown are colony forming units per millilitre (CFU/ml).

STORAGE

Dipslides should be stored at room temperature (20-25°C) (68-75°F) and protected from light. **DO NOT FREEZE THE DIPSLIDES.**

DISPOSAL OF USED SLIDES

Autoclave or incinerate the capped vials (loosen cap to prevent explosion). Alternatively, decontaminate inoculated slides by immersing slides overnight in a bacterial solution (1 part bleach added to 5 parts water). Local/state/provincial laws may apply to disposal.