

## HiDip™ Sulphate API - PCA Medium

HD011

### Intended Use:

For detection of sulphate reducing organisms from paper and pulp cooling tower waters and petroleum industry.

### Composition\*\*

Ingredients	g / L
<b>Sulphate API Agar w/o Sodium Lactate</b>	
Yeast extract	1.000
Magnesium sulphate	0.200
Ascorbic acid	0.100
Dipotassium hydrogen phosphate	0.010
Ferrous ammonium sulphate	0.100
Sodium chloride	10.000
Agar	14.000
Final pH ( at 25°C)	7.4±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Plate Count Agar

Tryptone	5.000
Yeast extract	2.500
Dextrose (Glucose)	1.000
Agar	15.000
Final pH ( at 25°C)	7.0±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

1. Surfaces : Loosen cap and remove HiDip™ slide from container taking care not to touch agar surfaces. Check for dehydration or contamination. Gently lower the slides and press agar to touch the test surface by bending the scull around the hinge line. Apply even and firm pressure for 15-20 seconds. Take care not to smudge agar over the test surface. Repeat procedure using the second agar surface on an area adjacent to the initial test side. Return the slide to the container and close tightly. Incubate in an up right position at indicated temperature.
2. Liquids: Loosen cap and remove the HiDip™ slide from container. Check for dehydration or contamination. Dip slide into test fluid for upto 15-20 seconds so that agar surface becomes totally covered. (In case of inadequate liquid sample availability, pour sample over the surface of the slide). Allow to drain. Tab it gently to remove excess fluid from surface. Return the slide to the container and close tightly. Incubate in an upright position at indicated temperature. Label the container for sample number,source, date and time etc. for reference.

### Principle And Interpretation

Sulphate API Agar is used for detection and estimation of sulphate reducing bacteria as per American Petroleum Institute Recommended Practice. Sulphate reducing bacteria convert sulphate to sulphide which on reaction with the ferrous ions gives black color.

Plate Count Agar is recommended for the plate count of microorganisms in foods, water and waste water. It is also recommended by APHA, FDA and also by ISO Committee.

### Type of specimen

Paper waste; Water samples from paper industries

### Specimen Collection and Handling:

Refer Directions.

## Warning and Precautions

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

## Limitations:

Sulphate API Agar w/o Sodium Lactate

1. For the estimation, appropriate dilutions of water samples are inoculated.

Plate Count Agar

1. This medium is general purpose medium and may not support the growth of fastidious organisms.

## Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

## Quality Control

### Appearance

The HiDip™ slide containing a combination of sterile Sulphate API Medium and PCA Medium on separate individual surfaces.

### Colour

#### Colour of Sulphate API Agar

Light yellow coloured medium

#### Colour of Plate Count Agar

Light yellow coloured medium

### Quantity of medium

2.5 ml per surface

### Sterility Check :

Passes release criteria

### pH of Sulphate API Agar

pH Range : 7.20-7.60

### pH of Plate Count Agar

pH Range : 6.80- 7.20

### Cultural Response

Cultural characteristics were observed after, incubation at 22-28°C on Sulphate API medium after 4 days of incubation anaerobically and at 35-37° C for 18-24 hours on PCA

Organism	Growth	Colour of colony
<b>Sulphate API Agar</b>		
<i>Desulfovibrio desulfuricans</i> ATCC 13541	good-luxuriant	Black
<b>PCA Medium</b>		
** <i>Bacillus spizizenii</i> ATCC 6633 (00003*)	luxuriant	Red to Maroon
<i>Enterococcus faecalis</i> ATCC 29212 (00087*)	luxuriant	Red to Maroon
<i>Escherichia coli</i> ATCC 25922 (00013*)	luxuriant	Red to Maroon
<i>Lactobacillus casei</i> ATCC 9595	luxuriant	Red to Maroon
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*)	luxuriant	Red to Maroon
<i>Streptococcus pyogenes</i> ATCC 19615	luxuriant	Red to Maroon

Key :- \* Corresponding WDCM numbers

\*\*Formerly known as *Bacillus subtilis* subsp. *spizizenii*

## Storage and Shelf Life

On receipt store between 15-30°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

## Disposal

Used HiDip™ slides should be handled carefully, as it contains live microorganisms. These slides can be best disposed off either by or by immersing in a suitable disinfectant solution (i.e. dettol, phenyl etc.) over night or by autoclaving them after loosening the cap.

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### Disclaimer :

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