

# Instructions for Use

## LEAD ACETATE STRIPS

<a href="#">Cat. no. K375</a>	Lead Acetate Strips	30 strips/bottle
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### PRINCIPLE/DISCUSSION

Lead Acetate Strips are used to detect the production of hydrogen sulfide by Enterobacteriaceae. The strips are more sensitive than KIA or TSI Agar and may be positive when the agar butt reaction would be inconclusive.

### ACTIVE INGREDIENT

Each strip is impregnated with a solution of Lead Acetate and water.

### MATERIAL SAFETY DATA

Lead is harmful if ingested in large quantities. If this occurs, contact a physician.

### STORAGE

Store tightly covered in a dry place at room temperature.

### QUALITY CONTROL

Strips should be tested before use with known hydrogen sulfide positive and negative organisms. Dispose of all used material in a manner appropriate for biohazardous material.

### SOME EXPECTED REACTIONS

<b>Positive:</b>	<i>Proteus</i> spp.
	<i>Salmonella</i> (most serotypes) spp.
	<i>Citrobacter ferundii</i>
<b>Negative:</b>	<i>Citrobacter diversus</i>
	<i>Escherichia coli</i>
	<i>Shigella</i> spp.
	<i>Klebsiella</i> spp.
	<i>Enterobacter</i> spp.
	<i>Providencia</i> spp.

## MATERIALS REQUIRED BUT NOT PROVIDED

Lead Acetate Strips require fresh 24 hour growth on media appropriate for the specimen. Consult a clinical microbiology manual for suggestions.

Media containing iron, such as KIA or TSI Agar

Inoculating loop

## MATERIALS PROVIDED

Lead Acetate Strips	30 per bottle
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## PROCEDURE

1. Inoculate a tube of liquid media containing sulphur compounds.
2. Insert a Key Lead Acetate Strip between the plug and inner wall of the tube, above the level of the liquid.
3. Follow the directions of the media you are using for incubation length and temperature.
4. After incubation observe for blackening of the strip.

## INTERPRETATION OF RESULTS

The blackening of the Lead Acetate Strip indicates production of hydrogen sulfide gas in the tube.



**Showing positive Lead Acetate Strip (Cat. no. K375) reaction.**  
Incubated aerobically with *Salmonella enterica* (ATCC® 14028) inoculation on KIA (Cat. no. L70) for 24 hours at 35°C. Blackening of the strip is indicative as positive for hydrogen sulfide production.



**Showing negative Lead Acetate Strip (Cat. no. K375) reaction.**  
Incubated aerobically with *Shigella sonnei* (ATCC® 9290) inoculation on KIA (Cat. no. L70) for 24 hours at 35°C. No blackening of the strip is indicative as negative for hydrogen sulfide production.

## REFERENCES

1. Tille, P., et al. *Bailey and Scott's Diagnostic Microbiology*, C.V. Mosby Company, St. Louis, MO.



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