TM 522 - HOYLE MEDIUM BASE

INTENDED USE
For differentiation and isolation of *Corynebacterium diphtheria.*

PRODUCT SUMMARY AND EXPLANATION
The most common disease caused by *Corynebacterium diphtheriae* is diphtheria, an acute communicable disease manifested by both local infection of the upper respiratory tract and the systemic effects of the toxin, which are most notable in the heart and peripheral nerves. Hoyle Medium Base, formulated by Hoyle, is the modification of the original formulation of Neill, for the isolation and differentiation of *C. diphtheriae*. This medium is not inhibitory to some mitis types of *Corynebacterium,* as the original formulation.
Hoyle's Medium is a highly selective medium and should be used in conjunction with a non-selective media such as Loeffler Serum Medium and Blood Agar Base with 10% horse blood. *C.diphtheriae* are usually present in small numbers permitting the formation of well isolated colonies. So, inoculation is done by directly rubbing the swab over the entire surface of the medium. Incubation should be carried out till 72 hours if the results are negative. To study the morphology, gentian violet staining is done. To demonstrate the characteristic morphology and staining reactions of *C. diphtheriae* by Neissers or Alberts method, it is advisable to use colonies from Loeffler Medium. The toxigenicity of *C. diphtheriae* strains can be determined by Eleks method.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	10.000
Beef extract	10.000
Sodium chloride	5.000
Agar	15.000

PRINCIPLE
Peptone and Beef extract supply carbon, nitrogen substances, amino acids, vitamins and other essential growth nutrients. Potassium tellurite is a selective agent, which inhibits most of the normal flora of the upper respiratory tract except *Corynebacterium.*

INSTRUCTION FOR USE
- Dissolve 40.0 grams in 940 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add 50 ml of laked blood and 10 ml of 3.5% Potassium Tellurite Solution.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Basal Medium: Amber coloured, clear to slightly opalescent gel. After Addition of blood & Tellurite: Brownish red coloured opaque gel forms in Petri plates.
pH (at 25°C) : 7.8±0.2

INTERPRETATION
Cultural characteristics observed with added 50 ml of laked blood and tellurite solution, after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colony characteristics	Incubation Temperature	Incubation Period
Bacillus subtilis subsp. *spizizenii*	*6633*	>=10^3	Inhibited	0%	-	35 - 37°C	18-24 Hours
C. diphtheriae type intermedius	*14779*	50-100	Good-luxuriant	>=50%	Grey colonies with darker	35 - 37°C	18-24 Hours
Escherichia coli	*25922*	>=10^3	Inhibited	0%	-	35 - 37°C	18-24 Hours
Enterococcus faecalis	*29212*	50-100	Good-luxuriant	>=50%	Black minute colonies	35 - 37°C	18-24 Hours

PACKAGING:
In pack size of 100 gm and 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
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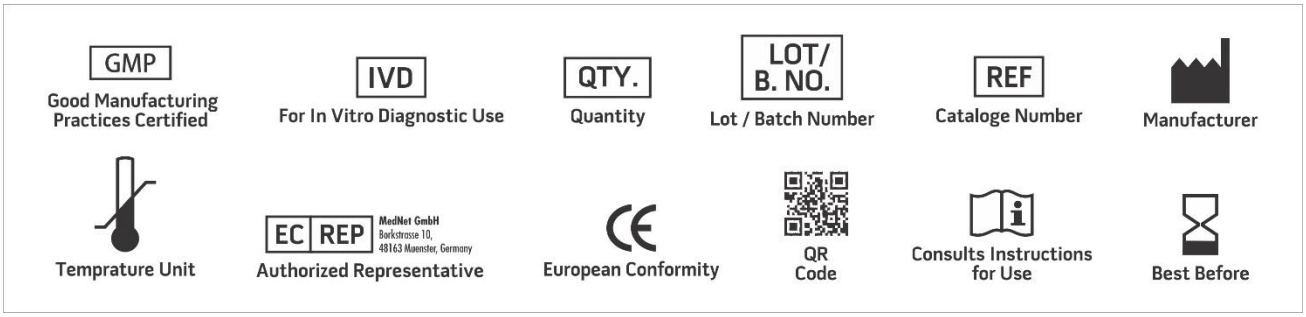
6. Williams and Wilkins, Baltimore.
7. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., 8th Ed., American Society for Microbiology, Washington, D.C. (Ed.), 2003, Manual of Clinical Microbiology.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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