CM 20538 – DAVIS SUPPLEMENTED MINIMUM MEDIUM W/O DEXTROSE

INTENDED USE

For enrichment and determination of titre coliforms in water samples.

PRODUCT SUMMARY AND EXPLANATION

Lederberg described the Davis formulation for Minimal Davis Broth used for enrichment and titre determination of coliform bacteria.It is used for isolating nutritional mutants of coliforms.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	2.000
Yeast extract	2.000
Dipotassium hydrogen phosphate	7.000
Potassium dihydrogen phosphate	3.000
Ammonium sulphate	1.000
Trisodium citrate dihydrate	0.500
Magnesium sulphate heptahydrate	0.100
Agar	15.000

PRINCIPLE

The medium consists of Tryptone and yeast extract which provides necessary organic carbon and nitrogen source. The medium contains citrate and phosphate as buffer salts. Ammonium sulphate is the inorganic nitrogen source. Magnesium
is a cofactor for many metabolic reactions.

INSTRUCTION FOR USE

Dissolve 30.49 gramsin 980 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 20 ml of filter sterilized glucose solution (2 gms glucose dissolved in 20 ml
□ purified/distilled water).
Mix well before pouring into sterile petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Yellow coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.0 ± 0.2

INTERPRETATION

Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Klebsiella aerogenes	13048	50-100	Good	40-50%	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Good	40-50%	35-37°C	18-24 Hours

PACKAGING:

Inpacksizeof500 gm bottles.

STORAGE

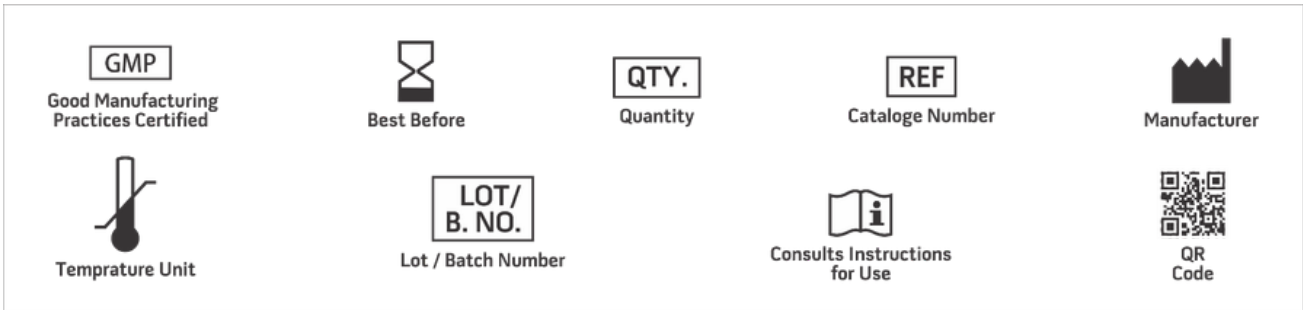
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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

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

REFERENCES

1Baird R.B.,Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Leberberg. 1950. Methods in Med. Res, 3:5.



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

*For LabUse Only