

## CM 20,016 – ACETAMIDE NUTRIENT BROTH (DOUBLE PACK)

### INTENDED USE

For the detection of microbial utilization of acetamide.

### PRODUCT SUMMARY AND EXPLANATION

Ability of utilizing acetamide by a wide variety of organisms was shown by Gilardi and others. They used a basal mineral medium for this purpose. However very few organisms are capable of deaminating acetamide by the acrylamidase activity. The ability to deaminate acetamide is more pronounced in the case of *Pseudomonas aeruginosa* and *Alcaligenes faecalis*.

### COMPOSITION

Ingredients	Gms / Ltr
Part I	
Magnesium sulphate	0.158
Sodium chloride	0.200
Sodium molybdate	0.005
Ferrous sulphate	0.0005
Dipotassium hydrogen phosphate	0.200
Part II	
Acetamide	2.000

### PRINCIPLE

Acetamide Nutrient Broth contains various inorganic salts and acetamide as sources of carbon and nitrogen. Organisms growing in this medium metabolize acetamide, thereby liberating ammonia. This liberated ammonia can be detected by Nessler's reagent, which confirms *Pseudomonas aeruginosa*. Magnesium sulphate, ferrous sulphate and sodium molybdate are sources of ions that stimulate metabolism. Sodium chloride maintains osmotic equilibrium. Dipotassium hydrogen phosphate provides buffering to the medium.

### INSTRUCTION FOR USE

Dissolve 0.56 grams of Part I in 1000 ml purified / distilled water.

Add 2 grams of Part II. Heat if necessary, to dissolve the medium completely.

Dispense in tubes or as desired.

Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

### QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Part I: White to cream homogeneous free flowing powder Part II: White to cream deliquescent crystals
Appearance of prepared medium	: Colourless clear solution in tubes with slight precipitate.
pH (at 25°C)	: 7.0±0.2

### INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Determination	Incubation Temperature	Incubation Period
Pseudomonas aeruginosa	27853	50-100	Good-luxuriant	Positive, yellow colour on addition of 1-2 drops Nessler's reagent after incubation indicates presence of ammonia	35-37°C	4-7 Days
Strenophomonas maltophilia	13637	50-100	Good-luxuriant	Negative no colour change on addition of 1-2 drops Nessler's reagent after incubation indicates absence of ammonia	35-37°C	4-7 Days

**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**

1. Gilardi, 1974, Antonie Van Leewenhoek, J. Microbiol. Serol. 39:229.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Pickett and Rederser, 1970, Car. J. Microbiol., 16:351.
4. Pickett and Rederser, 1970, Car. J. Microbiol., 16:401.
5. Stainier Palleroni and Doudoroff, 1966, J. Ger. Microbiol., 43:159.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

\*For Lab Use Only

