B277	OF BASAL MEDIUM
Formula	
Ingredients :	**gms/lit.**
Casein enzymic hydrolysate	2.00
Sodium chloride	5.00
Dipotassium phosphate	0.30
Bromothymol blue	0.08
Agar	2.00
Final pH (at 25°C) :	6.8± 0.2

Directions :

Suspend 9.38 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense in 100 ml amounts and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. To first 100 ml of sterile basal medium, aseptically add 10 ml of sterile 10% dextrose solution. To second 100 ml add 10 ml sterile 10% lactose solution. To third 100 ml add 10 ml sterile 10% saccharose solution. Mix and dispense aseptically in 5 ml amounts in sterile tubes in duplicate for aerobic and anaerobic fermentation.

Principle :

Casein enzymic hydrolysate in the medium provides the necessary carbon and nitrogen, vitamins etc required for bacterial growth. A carbohydrate whose fermentation reaction is to be studied is added separately. Phosphate buffers the medium and the low agar concentration determines motility and dispersion of the acid produced on the surface. Bromothymol blue acts as the pH indicator. The low concentration of agar permits the determination of motility and aids in the even distribution of any acid produced at the surface of the medium. Motility is observed as diffused zone of flaring out from the line of inoculation. Non-motile organisms grow along the line of inoculation. Glucose is the carbohydrate commonly added to the OF Basal Medium, lactose, maltose, mannitol, saccharose and xylose may also be used. Sodium chloride maintains the osmotic balance of the medium. Dipotassium Phosphate provides buffering capacity. Bromo Thymol Blue acts as a pH indicator, changing to yellow under acidic conditions.

QC Tests – (I)Dehydrated Medium		
	Colour :	Cream to greenish yellow
	Appearance :	Homogeneous Free Flowing powder
(II)Rehydrated medium		
	pH (post autoclaving/heating) :	6.8 ± 0.2
	Colour (post autoclaving/heating) :	Green
	Clarity (post autoclaving/heating) :	Clear to slightly opalescent
(III)Q.C. Test Microbiological		
	Cultural characteristics observed after	18 – 48 hrs at 35-37°C.

	MICROORGANISM (ATCC)	ONLY BASAL MEDIUM		W/DEXTROSE	
		UNCOVERED	COVERED	UNCOVERED	COVERED
	Acinetobacter baumannii (19606)	K	K	A	K
	Alcalescens faecalis (8750)	K	K	K	K
	Enterobacter aerogenes (13048)	K	K	AG	AG
	Escherichia coli (25922)	K	K	AG	AG
	Pseudomonas aeruginosa (9027)	K	K	A	K
	Salmonella enteritidis (13076)	K	K	AG	AG
	Shigella flexneri (12022)	K	K	A	A
	Vibrio cholerae (15748)	K	K	A	A

Key : K = alkaline, green (no change)
A = acid, yellow
G = gas. (sometimes observable)

Precautions :	1. For Laboratory Use.				
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
Limitations :	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.				
	2. The acid reaction produced by oxidative organisms is apparent at the surface and gradually spreads throughout the medium. If the oxidation is weak or slow, however, an initial alkaline reaction at the surface of the open tube may persist for several days and eventually convert to an acid reaction.				
	3. If an organism is unable to grow on Of Basal Medium, Cowan recommends adding either 2% serum or 0.1% yeast extract to each carbohydrate tube.				
	4. Nonsaccharolytic organisms produce a slight alkalinity in the open tube (blue – green colour), while the covered tube will not exhibit a colour change (green).				
Use :	For differentiation of gram-negative bacteria on the basis of fermentation and oxidative metabolism of carbohydrates.				
Storage :	Dehydrated medium- below 30°C Prepared medium– Between 2 to 8°C.				
Packing :	500 gm. bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B277	9.38 g/l	53.30 L	6.8 $\pm$ 0.2	10% lactose solution. 10% saccharose solution.	121^{0}C/15 min.