



Technical Data Sheet

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Maltose

RDM-S-06

Cas no.: 6363-53-7

Principle: Maltose is used as a source of energy, not only in plants but also in animals. Maltose is utilized as a nutrient in many bacteriological media. The organisms, maltose is decomposed into two glucose molecules when exposed to the enzyme maltase (α -glucosidase). Due to glucose breakdown by enzymatic dehydrogenation reaction to yield Energy in the form of ATP. Maltose is the most common disaccharide used to study fermentation reactions. Since maltose is used as carbon and energy source in many dehydrated media.

Use: Recommended for media ingredient of basic, selective or differential media and used as carbohydrate source in biochemical characterization of microorganisms etc.

Quality Control

Appearance	White colored, crystals or powder or powder free flowing with dry lumps
Solubility (2%)	Soluble in distilled water
Clarity (2%)	Clear solution
Loss on drying	NMT 1 %
Residue on ignition	NMT 1 %

Bacteriological testing

Bacteriological tests are carried out as per USP 32, NF26 where respective medium is prepared by using maltose under test.

Microbial Parameters:

Total Plate Count	NMT 10000 cfu per gram.
Yeast & Molds	Absent per 10 grams
<i>Escherichia coli</i>	Absent per 10 grams
<i>Salmonella</i>	Absent per 10 grams
<i>Staphylococcus aureus</i>	Absent per 10 grams

Culture response: The carbohydrate fermentation reactions observed in phenol red both base (RDM-PRBB-01) with 0.5% maltose after an incubation at $35 \pm 2^\circ\text{C}$ for 18-24 hours. Inoculum 50-100 CFU.

Organism	ATCC	Growth	Acid production	Gas production
<i>Escherichia coli</i>	25922	Luxuriant	Positive (yellow color)	Positive
<i>Salmonella typhimurium</i>	14028	Luxuriant	Positive (yellow color)	Positive

Storage and Shelf Life

Store below 30°C in tightly sealed jar or container. Use before expiry date on the label.
Expected performance when stored at optimum conditions and within expiry date.

Disposal: To avoid the contamination or propagation of any hazardous microbes used, unusable or modified preparation of this product must be disposed after autoclaving or incineration after completion of task.

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