

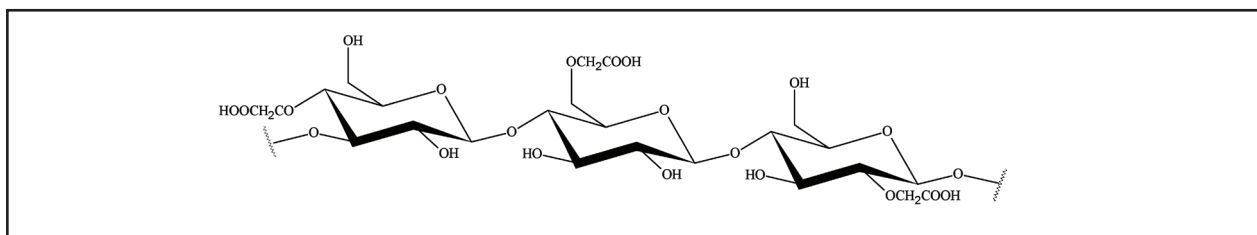


## CARBOXYMETHYL CELLULOSE 4M (Lot 81101c)

**P-CMC4M**

**11/15**

**CAS: 9000-11-7**



Schematic representation of CM-cellulose subunit

### PROPERTIES OF CMC-4M:

<b>Molecular weight:</b>	Product not completely soluble so this cannot be determined
<b>Degree of polymerisation:</b>	~ 1000
<b>Degree of substitution:</b>	0.40-0.50 (4-5 carboxymethyl groups per 10 anhydroglucose units)
<b>Sodium content:</b>	Approximately 10% by weight
<b>Purity:</b>	99.5%
<b>Colour:</b>	Off-white coloured powder
<b>Solubility:</b>	Hydrates and swells in water but is not completely soluble
<b>Synonym:</b>	CMC-4M

This product is a medium viscosity carboxymethyl cellulose (CMC). CMC-4M is an ideal substrate for the measurement of *endo*-cellulase activity by reducing sugar methods. CMC-7M is not suitable for the assay of many cellulases as the higher degree of substitution with CM-groups interferes with enzyme hydrolysis.

### PREPARATION INSTRUCTIONS:

To 90 mL of vigorously stirring water at 90°C gradually add 1.0 gram of CMC-4M (the solid must be added to the water as adding water to the dry solid produces a “clump” of solid that is very difficult to dissolve).

Continue stirring for about 30 min (until the polysaccharide is completely dispersed).

Cool the solution to room temperature and add 5 mL of sodium acetate buffer (2 M, pH 5.0). Adjust the volume to 100 mL and store the solution in a well-sealed glass container at 4°C.

### STORAGE/STABILITY:

The powder product should be stored dry at room temperature.

When suspended in buffer, store the solution at 4°C in a well-sealed glass bottle. Add two drops of toluene to prevent microbial infection.