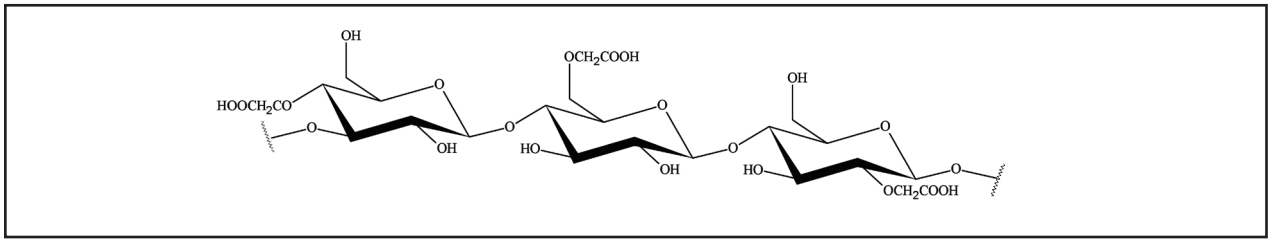
CARBOXYMETHYL CELLULOSE 4M (Lot 81101d)

P-CMC4M **08/18**
CAS: 9000-11-7



Schematic representation of CM-cellulose subunit

PROPERTIES OF CMC-4M:

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