



## CM-CURDLAN (Lot 90601c)

**P-CMCUR**

**10/15**

**CAS NO. 114732-86-4**

### **PREPARATION:**

Carboxymethyl curdlan (CM-Curdlan) is prepared by carboxymethylation of highly purified curdlan with chloroacetic acid. Curdlan is a polymer of 1,3- $\beta$ -linked D-glucosyl residues.

### **PROPERTIES OF CM-CURDLAN:**

Degree of carboxymethylation (DS): ~ 0.4.

Viscosity: 5.5 dL/g (Ubbelohde suspended viscometer, 25°C, in 0.5 M KCl).

Molecular Weight: 1996 dL/g

Colour: light tan coloured powder.

Solubility: Forms a highly viscous aqueous solution in water or buffer at 0.5% w/v.

Enzyme susceptibility: Readily hydrolysed by *endo*-1,3- $\beta$ -glucanase.

### **DISSOLUTION:**

To 90 ml of vigorously stirring water at 90°C gradually add 0.5 gram of CM-curdlan.

Continue stirring for about 1 hour (until the polysaccharide is completely dissolved).

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.

To prevent microbial infection, a few drops of toluene are added to the storage bottle.

For some 1,3- $\beta$ -glucanases, a higher pH is required for activity; in these cases, substitute an appropriate buffer for the acetate buffer (eg. MOPS).