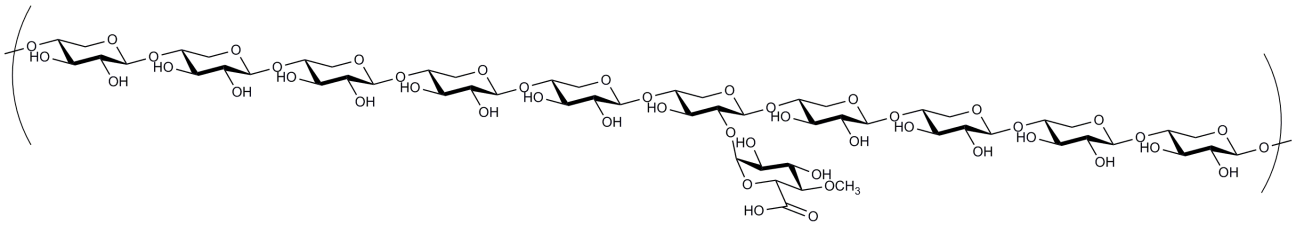
XYLAN (Beechwood) (Lot 171002a)

P-XYLNBE-50G **08/19**
CAS: 9014-63-5

STRUCTURE



Schematic representation of xylan (4-*O*-methyl glucuronoxylan)

PROPERTIES

Ash:	2.4%
Moisture:	2.4%
Protein:	0.7%
Physical Description:	Off-white, odourless powder

STORAGE CONDITIONS

Store dry at room temperature in a well-sealed container. Under these conditions, the product is stable for several years.

APPLICATIONS

Highly purified xylan from beechwood suitable as a replacement for birchwood xylan as a substrate for β-xylanase in DNSA and Nelson-Somogyi reducing sugar assays.

COMPARISON OF PROPERTIES:

Properties	Xylose, %	Glucuronic acid, %	Other sugars, %	Protein, %	Ash, %	Moisture, %
Xylan (Birchwood)	85.6	8.7	5.7	0.1	7.6	5.1
Xylan (Beechwood) Lot 141201	82.3	12.8	4.9	0.2	4.7	4.1

METHOD OF DISSOLUTION (for 1.0% w/v solution)

Accurately weigh 1.0 g of xylan into a 120 mL dry pyrex beaker. Add 4 mL of 95% ethanol to wet the sample. Add a magnetic stirrer bar followed by 90 mL of distilled water while stirring the slurry on a hot-plate magnetic stirrer. Adjust the heat setting to 120°C and stir vigorously. Cover the beaker loosely with aluminium foil and continue stirring vigorously. Turn the heat off when the solution begins to boil, but continue stirring the solution until the xylan completely dissolves (approx. 10 min). Adjust the volume of the solution to 100 mL (this solution may be very slightly opalescent due to the presence of trace amounts of protein).

Xylan solutions can be stored at room temperature for several weeks in a well-sealed storage bottle. Microbial contamination is prevented by adding a few drops of toluene to the storage bottle.

REFERENCES:

McCleary, B.V. & McGeough, P. (2015). A Comparison of Polysaccharide Substrates and Reducing Sugar Methods for the Measurement of *endo*-1,4-β-Xylanase. *Appl. Biochem. Biotechnol.,* 177, 1152-1163.