

# Xylonic acid

Production of xylonic acid by yeast

Photo: Rosana Falcão



**Embrapa**  
Agroenergy





# Production of xylonic acid by yeast

Raw material

Process

End product

Yeast strains

Fermentative

Xylonic acid

Recombinant yeast strains of *Komagataella phaffii* (*Pichia pastoris*) and *Saccharomyces cerevisiae* producers of xylonic acid from xylose in sugarcane biomass hydrolysate.

## Applications

- + Dispersant in cement, ion complexing or chelating agent, clarifying agent for polyolefins, antibiotic, additive for improving vitamin C absorption.
- + Manufacture of biopesticides and bleaching of textiles.
- + Substitute for gluconic acid in non-food products.
- + Modifier or precursor for the synthesis of 1,2,4-butanetriol, copolyamides, polyester, hydrogels and ethylene glycol.

## Advantages

- + Production of xylonic acid from renewable resources.
- + Simplified production process.

Stage ► TRL/MRL 3 - Lab scale

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technology  
to another  
stage



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