CARBOHYDRASE from *SACCHAROMYCES* species

Prepared at the 15th JECFA (1971), published in NMRS 50B (1972) and in FNP 52 (1992) An ADI 'not limited' was established at the 15th JECFA (1971)

SOURCES

Commercial enzyme preparations of carbohydrases (*Saccharomyces*) are produced by the controlled fermentation of a number of species of *Saccharomyces* traditionally used in the manufacture of food.

Active principles

1. ß-Fructofuranosidase (invertase, saccharase)
2. ß-Galactosidase (lactase)

Systematic names and numbers

1. ß-D-Fructofuranoside fructohydrolase (EC 3.2.1.26)
2. ß-D-Galactoside galactohydrolase (EC 3.2.1.23)

Reactions catalyzed

1. Hydrolyzes sucrose to a mixture of glucose and fructose.
2. Hydrolyzes lactose to a mixture of glucose and galactose.

DESCRIPTION

White to tan amorphous powders; soluble in water, the solutions usually being light yellow; practically insoluble in alcohol, chloroform and ether.

FUNCTIONAL USES

Enzyme preparation
Used in the manufacture of candy and ice cream and modification of dairy products

GENERAL SPECIFICATIONS

Must conform to the *General Specifications for Enzyme Preparations used in Food Processing* (see Volume Introduction)

CHARACTERISTICS

IDENTIFICATION

Invertase activity

The sample shows invertase activity
An example of determination of invertase: AOAC Official Methods of Analysis, 11th ed., 529 (1970)

ß-Galactosidase activity (Vol.4)

The sample shows ß-galactosidase activity