

GLUCOSE OXIDASE and CATALASE from *ASPERGILLUS NIGER* var.

Prepared at the 25th JECFA (1981), published in FNP 19 (1981) and in FNP 52 (1992). An ADI not specified' was established at 18th JECFA (1974)

SYNONYMS

1. Glucose oxyhydrase, glucose aerodehydrogenase, notatin, aero-glucose dehydrogenase; INS No. 1102
2. None

SOURCES

Commercial enzyme preparations are produced by the controlled fermentation of *Aspergillus niger* var.

Active principles

1. Glucose oxidase
2. Catalase

Systematic names and numbers

1. β -D-glucose: oxygen 1-oxidoreductase (EC 1.1.3.4)
2. Hydrogen-peroxide: hydrogen-peroxide oxidoreductase (EC 1.11.1.6)

Reactions catalyzed

1. β -D-glucose + O₂ --> D-glucono-delta-lactone + H₂O₂
2. H₂O₂ + H₂O₂ --> 2H₂O + O₂

Secondary enzyme activities Invertase (EC 3.2.1.26)

DESCRIPTION

Off-white to brown liquids; soluble in water and practically insoluble in ethanol, chloroform and ether

FUNCTIONAL USES

Enzyme preparation
Used in the preparation of and/or use in milk, cheese, eggs, beverages and salads

GENERAL SPECIFICATIONS

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

CHARACTERISTICS

IDENTIFICATION

Glucose oxidase activity
(Vol. 4)

The sample shows glucose oxidase activity

Catalase activity (Vol. 4)

The sample shows catalase activity