

NISIN

Technical Data of the Product

Product Name:WeiRi-Brand Nisin

Molecular Formula: $C_{141}H_{228}O_{37}N_{41}S_7$

Molecular Weight:3331

INS:234

CAS:1414-45-5

Specification of Product

Program	Specification
Appearance	Off-white powder
Content (IU/mg)	≥ 1000
Moisture (%)	≤ 3
Heavy Metals (Pb) (mg/kg)	≤ 1
NaCl (%)	≥ 50
Count of Colony (cuf/g)	≤ 10
E. coli. (MPN/100g)	≤ 30
Salmonellae spp.	Absent in 25g

Stability

Nisin is most stable under acid conditions. It can keep the activity after the treatment at 121 °C for 30mins at pH2; 47% of the activity remained after the treatment in 110 °C for 30mins in nonfat milk in pH6.5; but the activity lost rapidly in 30 minutes at 63 °C in pH 11.

Solubility

Nisin can be dissolved in aqueous solution, but is insoluble in non-polar solvents. The solubility decreases with the increase of pH, and it increases with the rise of temperature.

Anti-microbial Properties

Nisin possesses highly of inhibiting activities to Gram-positive bacteria , particularly to spore- forming bacteria. It does not influence Gram-negative bacteria, yeasts and moulds generally. But under some circumstances (such as freezing, heating, low pH and adding of EDTA), Nisin can inhibit some Gram-negative bacteria such as Salmonella spp, Shigella spp, Klebsiell spp Escherichia coli etc.

Direction of Usage

About 5% aqueous solution is prepared firstly with cold boiled water or distilled water (best with diluted acid solution), then instantly put it into food and stirs well. Or put it directly into food and stirs well.

Recommended Dosage

The general dosage is 0.1 g/kg- 0.5 g/kg. The detail dosage of Nisin depends on products, material quality, process, shelf life and storage conditions, etc.

Packing and Storage

A.Packing: WeiRi-brand Nisin is supplied in 500g/bottle,1000g/bottle with self-sealed screw-caps, 10 bottles/case 20 bottles/case, or packed at customer's request.

B.Storage: WeiRi-brand Nisin is stable for 24 months from the date of manufacture when it is stored in dry conditions, away from direct sunlight and below 10 °C .