**Food safety:**

Food safety is a prime concern these days because of hazards caused by the foodborne pathogens. About 9.4 million cases of food borne illnesses are reported in the USA only because of food-poisoning microorganisms like Listeria monocytogenes, Salmonella, Campylobacter and Clostridium perfringens. These food spoilage microorganisms are serious challenge to food safety if not properly controlled. *Listeria monocytogenes* is a Gram positive, non-spore forming foodborne pathogen which has excellent ability to flourish in harsh conditions e.g. low water activity and acidic pH, it could also colonialize at refrigeration temperatures, which make its eradication difficult. Another challenge in providing safe and contamination free food at consumer level is growing antibiotic resistance in food spoilage microorganism.

Since most of the currently used preservatives are synthetic and can also cause adverse effect on human health when present in food so the food industry is currently looking towards use of natural antimicrobial agents e.g. bacteriocins to ovoid bacterial contamination in food). Nisin inhibits wide range of Gram-positive spoilage microorganisms and approved as generally recognized as safe (GRAS) for food additive purpose in more than 50 countries.