# TECHNOLOGY SUMMARY

# SAFEFORMULA - INFANT FORMULA SAFE FROM *E.SAKAZAKII*

## VALUE PROPOSITION

Addition of this caesin-derived biopreservative eliminates the potential risk of *E. sakazakii* contamination in powdered infant formula (PIF). A PIF brand with a safer profile will be more attractive to mothers who currently use PIF and also to breastfeeding mothers (40% breastfeeding at 6 months-USA) who may view PIF as potentially harmful. A safer product will also eliminate costly recalls.

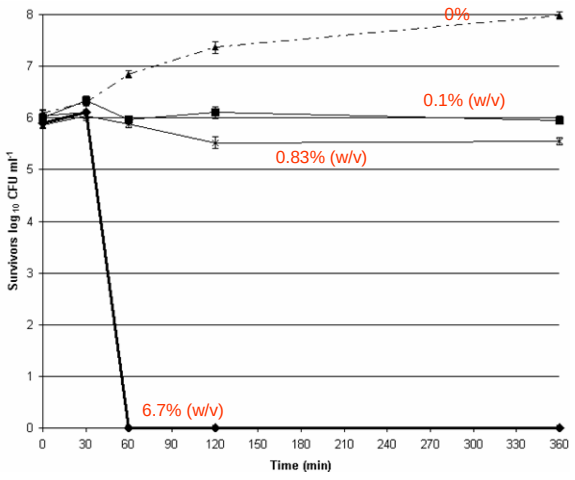
## THE TECHNOLOGY

The SAFEFORMULA project is aimed at producing a valuable ingredient solution to ensuring safe infant formula. The project is based on the identification of antimicrobial peptides released from a casein-based substrate during fermentation with a Lactobacillus strain. These peptides have been shown to be effective against the neonatal pathogen *E. sakazakii.*

Infant formula manufacturers have increasing problems with the issue of *E. sakazakii* contamination. Batches of formula can be readily infected due to the resilience of the species to overcome the drying process. There is a constant need for new formulations to be competitive in the infant formula market.

A novel strain of bacteria is provided that produces at least one antimicrobial peptide. The SAFEFORMULA biopreservative will provide a cost-effective food ingredient that will protect infant formula from the outgrowth of *E. sakazakii.*

**Growth of *E. sakazakii* in the presence of different concentrations of casein fermentate in reconstituted infant formula**




## DEVELOPMENT OBJECTIVES

- To conduct a full genome scan of the Lactobacillus strain used in the fermentation
- To evaluate the fermentate product containing the antimicrobial peptides for safety and stability

## FIELDS OF APPLICATION

- Powdered Infant Formula

## PARTNERS

## FUNDING

## CONTACT

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