

**DECISION TAKEN PRIOR TO ENFORCEMENT OF
BIOSAFETY ACT 2007**

**APPLICATION FOR APPROVAL FOR RELEASE ACTIVITY OF ICE
STRUCTURING PROTEIN (ISP)**

NBB REF. NO: JBK(S) 602-1/1

APPLICANT: UNILEVER MALAYSIA

**DECISION ACKNOWLEDGED BY NATIONAL BIOSAFETY BOARD:
25 MAY 2010**

Description:

ISP is a copy of a protein found in ocean pout (fish), however, no fish components are used in the derivation or manufacture of ISP. ISP is used as a processing aid in frozen products at a level <0.005%. It is used to control ice crystal size, shape and growth by Unilever in the preparation of ice-cream.

Safety Assessment:

The outcome of safety testing in ISP shows that there is no evidence of (i) a potential to induce or elicit allergic reactions, (ii) genotoxicity/mutagenicity or (iii) any adverse effects in 13-week rat study. The yeast cells used for the commercial manufacture of ISP is recombinant baker's yeast and uses standard industrial-scale biotechnology processing and food-grade material. The recombinant yeast is separated from the final product (ISP) and it is GMO and DNA free.

This product is used for food processing industry.