

SYNOPSIS

Indian Standard PROCESSED EUCEUMA SEAWEED, FOOD GRADE — SPECIFICATION

a) Scope: This standard prescribes requirements, methods of sampling and test for Processed Eucheuma Seaweed, food grade.

b) Salient features of content: This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Food Additives Sectional Committee had been approved by the Food and Agriculture Division Council.

Processed Eucheuma Seaweed is a substance with hydrocolloid properties obtained from either Eucheuma cottonii or E. spinosum (from the Rhodophyceae class of red seaweeds). In addition to carrageenan polysaccharides, processed eucheuma seaweed may contain up to 15% of insoluble algal cellulose and minor amounts of other insoluble matter. Articles of commerce may include sugars for standardization purposes or salts to obtain specific gelling or thickening characteristics. It is distinguished from carrageenan (INS No. 407) by its higher content of cellulosic matter and by the fact that it is not solubilized and precipitated during processing.

The functional component of the product obtained from E. cottonii is kappa-carrageenan (a copolymer of D-galactose-4-sulfate and 3,6-anhydro-D-galactose). From E. spinosum it is iota-carrageenan (a copolymer of D-galactose-4-sulfate and 3,6-anhydro-D-galactose-2-sulfate).

Processing consists of soaking the cleaned seaweed in alkali for a short time at elevated temperatures. The material is then thoroughly washed with water to remove residual salts followed by purification, drying, and milling to a powder. Alcohols that may be used during purification are restricted to methanol, ethanol, and isopropanol.

Processed Eucheuma Seaweed is used as a thickener, gelling agent, stabilizer and emulsifier. Articles of commerce may include sugars for standardization purposes, salts to obtain specific gelling or thickening characteristics, or emulsifiers carried over from drum drying processes. It is approved as thickener and stabilizer under the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

This standard, which is based on JECFA standard for Processed Eucheuma Seaweed, prepared at the 68th JECFA (2007) and published in FAO JECFA Monographs 4 (2007), has been formulated to provide the necessary guidelines to manufacturers and the consumers for maintaining quality control.

c) There are no grades of the product covered in the standard

d) Disclaimer (to be automatically provided by the program/software)