

Seafood Flavour from Vegetable Protein



Hydrolysed vegetable protein (HVP) has been used for more than 100 years to flavour savoury foods such as soups, sauces, gravy mixes, bouillon cubes, snacks, crackers, instant noodles, processed meat, fish and poultry products. It maybe defined as a product that results from the acid, alkaline or enzymatic hydrolysis of a proteinaceous substrate. Common proteinaceous substrates used are soybean, wheat or maize. Most of the commercially available HVPs are soybean-derived and offer base note flavours. On industrial scale, acid hydrolysis is the most commonly used method, often using hydrochloric acid. However, the presence of 3-monochloropropane-1,2-diol (3-MCPD), a component of a group of chemical contaminants known as chloropropanols found in acid-hydrolysed vegetable protein pose a potential health risk to its users. The European Commission Regulation 466/2001 sets the maximum levels of 3-MCPD at 0.02 mg/kg 3-MCPD in soy sauce and HVP for the liquid product containing 40% dry matter and 0.05 mg/kg 3-MCPD in the dry matter. The newly gazetted Malaysian regulation is 1 mg/kg for 3-MCPD in acid-hydrolysed vegetable protein, 0.02 mg/kg for liquid foods and 0.05 mg/kg for dry foods that contain acid-hydrolysed vegetable protein.



Food Products containing HVP



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The hydrolysed vegetable protein from this research is produced by acid hydrolysis of a vegetable proteinaceous substrate. It has a distinct seafood flavour, which is different from that of other vegetable-derived flavours. Besides its unique seafood flavour, it has undetectable level of 3-MCPD and is non-allergenic when compared to natural seafood flavours.

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