

Survey on the Contents of Sulfites for the Agricultural products used Herb medicines

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INTRODUCTION

Sulfiting agents are one of the most widely used food preservatives. The term of sulfiting agents refers to sulfur dioxide and several forms of inorganic sulfites that liberate sulfur dioxide under the conditions of use. Sulfiting agents are used in food for many purposes : The inhibition of microorganism growth, serving as an antioxidant, and stabilizing agent.

Sulfiting agents are allowed for use in food : Sulfur dioxide(SO_2), Sodium sulfite($\text{Na}_2\text{SO}_3 \cdot 7\text{H}_2\text{O}$), Potassium metabisulfate($\text{K}_2\text{S}_2\text{O}_5$), Sodium sulfite anhydrous(Na_2SO_3), Sodium bisulfite(NaHSO_3) and Sodium hydrosulfite($\text{Na}_2\text{S}_2\text{O}_4$).

In Korea, most of agricultural food stuffs have been used as herb drugs or food for health food and it is generally regulated sulfite contents under 30ppm. Human toxicity of sulfite is comparatively mild but large dose of it cause severe vomiting, diarrhea, circulation problems.

At present, Several studies about sulfites have been reported on food but few on herb drugs. So this study was carried out to investigate the safety of sulfite in domestic or imported agricultural products which was used as herb drugs.

MATERIALS AND METHOD

This study used 696 samples which were sailing in Kyung-Dong market, from Jan to Aug in 2001. To analysis sulfites, make used Optimised Monier-Williams method.

RESULTS AND DISCUSSION.

1. Of the 696 samples, South Korea 605 samples(86.9%), China 70 samples(10.1%), North Korea 14 samples(2.0%), and others 7 samples (1.0%); 17 samples(2.4%) were failed to pass the criteria of sulfites.

2. Of the 605 domestic samples, 10 samples were failed to pass the criteria of sulfites. Otherwise, of the 91 imported, 7 samples were failed to pass the criteria of sulfites.

3. According to classification of samples, Numbers of samples of failed to pass were as followed ; fruits(6 of the tested 221 samples, 2.7%), Roots(9 of the 140 samples, 6.4%), Glasses(1 of the 201 samples, 0.5%), Others(1 of the 134 samples, 1.0%).

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