

# SULPHITES, INTOLERANCE OR ALLERGEN, DECLARED OR UNDECLARED

Sulphites and sulphate ingredients play an important role in the food industry, but as well as preventing spoilage, they have also been linked with food intolerance and allergies.

Many countries require that sulphites and sulphate ingredients must be declared on labels as a food allergen, or intolerance additive, providing certain conditions apply. Typically, declaration is required when these additives are added directly and/or present at levels of 10 mg/kg (ppm) or greater in a product. The United States (US) goes a step further. In the US the label declaration applies if the sulphite is added to an ingredient that is added to the finished product unless it has no technical effect on the finished food and is less than 10 mg/kg.

The wide variation between countries and regions as to what foods sulphites can be applied to products and at what levels, creates problems for people who suffer a reaction to sulphites.<sup>1</sup>

## REACTIONS CAUSED BY SULPHITES

Sulphites are known to increase symptoms in 5% of asthmatics. In some people adverse reactions include hives, swelling and anaphylaxis symptoms.<sup>2</sup> Other reactions more associated with intolerance to sulphites are nausea, abdominal cramping and diarrhoea.<sup>3</sup>

## WHY USE SULPHITES

Sulphites prevent spoilage caused by microbial growth, prevent oxidation and prevent browning or colour degradation of food and wines. Other uses of sulphites are on seafood products such as shrimp and prawns. Their use on pickled vegetables is fairly common but less known is that they are used in

baked products as a dough conditioner and dried beverage mixes for colour retention.

Sulphites were recognised by the Greeks and Romans as a means to preserve wine. Then around the 1880s sulphites were applied to meat products produced in South America and Australia that were being shipped to England. In the 20<sup>th</sup> century the use of sulphites on processed fruits and vegetables became commonplace.<sup>4</sup>

## REGULATION:

In some areas/countries, such as European Union<sup>5</sup> and those that follow Codex Alimentarius<sup>6</sup> standards, the regulations and labelling requirements



<sup>1</sup> Sulphites - International

<sup>2</sup> Sulphite Allergy

<sup>3</sup> Sulphites: Separating Facts from Fiction

are fairly straightforward. In the US, the requirements for sulphites are controlled by four different government agencies creating a degree of confusion, albeit mainly for companies importing products into the country. Alcoholic beverage sulphite labelling and requirements is controlled by the Bureau of Alcohol, Tobacco, Firearms and Explosives. The US Environmental Protection Agency is responsible for the fumigation of

foodstuffs when using Sulphur Dioxide. The United States Department of Agriculture is responsible for meat, poultry and processed egg products, catfish and partially for organic products while the US Food and Drug Administration is responsible for the remaining of the food and feed products. Canada last year required sulphites to be listed as an allergen because of issues in regard to sulphite sensitivity.<sup>7</sup>



### UNDECLARED OR EXCESSIVE SULPHITES

Since all these countries require specific labelling and set acceptable levels of sulphites one would believe that this issue is being controlled but each week there is a related product recall. In June 2013 Rapid Alert System for Food and Feed (RASFF) reported: "Sulphite: too high content (904 mg/l) in chablis wine, following a consumer complaint. Origin France, distributed also to United Kingdom"<sup>8</sup> and in Canada on 25 May 2013 – undeclared sulphites in a white grape juice, on 4 June 2013 snacks with undeclared sulphites and on 29 April 2013 – undeclared sulphites in golden seedless.<sup>9</sup> In the US, on 3 May 2013 dried whole shrimp with undeclared sulphites was recalled.<sup>10</sup>

### RESOLUTION

As with all allergens and sensitising food ingredients, packaged food must be correctly labelled, but it is even more important to know all of the substances in the ingredients. When undeclared or excessive some ingredients, including sulphites, can cause reactions in people that result in illnesses and even death. Until the industry conducts due diligence to verify that all known substances are either declared or at the proper levels, then these recalls will continue and sensitive individuals will suffer for the industry's improper action.

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<sup>4</sup> Food Intolerance Network Factsheet: Sulphites (220-228)

<sup>5</sup> Allergenic Foods in Annex IIIa and List of Authorised Food Additives

<sup>6</sup> Food Additive Group Details and The Codex Recommendations

<sup>7</sup> Sulphites - One of the Ten Priority Allergens and Food Allergen Labelling

<sup>8</sup> Food Recalls in EU - Week 23

<sup>9</sup> Canada Recalls and Safety Alerts

<sup>10</sup> US FDA - Recalls, Market Withdrawals & Safety Alerts