

PROPOSAL P298

BENZOATE AND SULPHITE PERMISSIONS IN FOOD

Response from Fonterra Brands(New Zealand) Ltd
12th September 2005

Scientific aspects of the Proposal, in particular any information relevant to the safety assessment and/or dietary exposure assessment.

What are the potential costs or benefits of the proposed risk management options to you as a stakeholder? Would the benefits outweigh the costs?

Potential costs to Fonterra Brands (NZ) Ltd:

Benzoates and sulphites are not commonly added as preservatives at Fonterra Brands (NZ) Ltd. Potassium sorbate is the anti-microbial agent used when required for extension of shelf-life such as in flavoured sour-cream dips.

Examples of preservative use at Fonterra Brands (NZ) Ltd:

Sulphites have recently been removed from the Zing range of fruit drinks. Previously there was no alternative but to control the growth of yeast and moulds using sulphites as the fruit drink was filled into the bottle at ambient temperatures, they are now filled at pasteurisation temperatures. Potassium sorbate has remained in the formulation to maintain shelf-life when the drink is opened.

Many of the fruit preparations used for yoghurt contain dried fruit. For example, apricot fruited variants usually contain residual amounts of sulphur dioxide. An apricot fruit preparation may contain 450ppm sulphur dioxide, calculated from the level in the dried fruit used. In the finished product this calculates to 45ppm, but it is likely to be closer to 10ppm or less due to the effect of heating and processing of the fruit preparation driving off substantial amounts of sulphite, testing is required to confirm this. The residual sulphur generally has no impact on shelf life at these low levels. There is a possibility to use frozen fruit rather than dried fruit but this is a more expensive option.

Glucose syrup used in custard and ice cream formulations contains sulphur dioxide to prevent discoloration, potentially carrying over into the finished product. It has been found that the residual levels in custard are well below the 10ppm declarable threshold for sulphites and there is no impact on shelf life at this level.

What are the costs or benefits for consumers of the proposed risk management options in terms of public health and safety? Do any identified health benefits for the targeted group of consumers outweigh any costs to non-target groups?

Cost to the consumer if the use of benzoates and sulphites is prohibited: Potentially increased cost due to shorter shelf-life product; health risk through eating spoiled product. Potentially more complex processing/filling may be required to ensure food safety through the supply chain to the end consumer. Additional costs will have to be passed on to the consumer.

Increased market opportunity potentially for consumers who previously avoided products that contained benzoates and sulphites.

What are the costs or benefits for business of the proposed risk management options – increased market opportunities both domestically and overseas, production costs, marketing costs including providing advice to consumers?

There is a definite benefit to the consumer removing sulphites and benzoates from food, yet it is not always possible due to food safety and shelf life implications. The maximum levels allowable could be investigated to control the overall exposure to the consumer. In addition a food technology search of alternative preservatives that have lower allergenic potential would be a very worth while exercise

The level of addition of sulphites is hard to control in dried fruit as sulphur dioxide gas is often used because it penetrates the fruit better than solutions of sulphites (CRC Handbook of Food Additives, 1968). An investigation into a more controlled method of dispensing sulphur dioxide would be beneficial, as would alternative gas type anti-microbial agents.

What are the costs and benefits for government of the proposed risk management options – administrative, public health and safety?

What effects, if any, on international trade would occur if FSANZ decreased the benzoate and sulphite permissions in selected foods?

It might not be possible to ship certain key export foods such as wines, fruits and dairy produce containing fruits to distant markets if the shelf-life cannot be guaranteed.

In particular, can food manufacturers specifically indicate the effect of reducing the permitted levels of benzoates and sulphites as food additives in foods, including, effects of continued use of benzoates and sulphites as food additives, use of other food additives to replace benzoates and sulphites, impact on the product range and magnitude of any change in costs and final prices to consumers?

Reduced levels of benzoates and sulphites would have to be investigated on a case by case in the particular food application to establish food safety and shelf life implications. In some cases it is possible to find other means of preservation, but where there is little alternative there will most likely be significantly reduced shelf life due to food spoilage if it's not possible to use benzoates or sulphites. This is definitely not an ideal situation due to the increased shelf life requirements by supermarket distribution networks.