

**Humphries, Cathie**

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**From:** [REDACTED]  
**Sent:** Wednesday, 14 September 2005 8:51 AM  
**To:** advice; Information; SLO  
**Cc:** [REDACTED]  
**Subject:** SubmissiononP2981tek[2]

**Submission in response to Proposal P298 Benzoate and Sulphite permissions in food - Initial Assessment Report**

*Summary: While sympathetic to the aims of the review, the AAB sees no reason to vary the current permission (25mg/L maximum) for sulphur dioxide in beer on the bases that:*

- *Brewing is a biological process and cannot be precisely controlled. While the levels of sulphur dioxide found in beer are generally low, the current permission of 25mg/L reflects what is sometimes found and represents a realistic figure. Reducing this figure will result in increased processing and potentially impact on product quality.*
- *Beer sulphur dioxide levels make only a small contribution to the daily intake of adults and none to those of children*
- *Where added, sulphur dioxide plays a significant role in maintaining the fresh flavour of beer, with no satisfactory alternative. In such cases, the beers must still conform to the 25mg/L permitted maximum.*

The Australian Associated Brewers (AAB) represents the non-commercial interests of Australia's four major brewers, [REDACTED] and welcomes the opportunity to comment on this proposal

### **Current regulatory situation**

Permission for use of sulphite

Standard 1.3.1 permits sulphites, as sulphur dioxide and its sodium and potassium salts, to be added to beer and related products to a maximum level of 25 mg/kg (25 ppm). Sulphites perform a technological function as an antioxidant when used in this manner.

Labelling

Standardised alcoholic beverages, including beer, are exempt from ingredient labelling, however, standard 1.2.5 - Warning and advisory statements requires the declaration of added sulphites exceeding 10 mg/kg

### **Technical aspects**

While sulphur dioxide is a natural by-product of fermentation and is found in a number of alcohol beverages, the concentrations found in beer are typically between 5 and 15 mg/L.

At these levels, sulphur dioxide makes a significant contribution to the flavour stability of beer by complexing with some of the compounds which contribute to aged/oxidised flavour. In some cases brewers will add small quantities (less than 10 mg/L) to help protect the beer against the high temperatures encountered in Australia.

### The 21<sup>st</sup> Australian Total Diet Study

The 21<sup>st</sup> Australian Total Diet Study analysed 15 samples of full strength beer. Sulphites were not detectable in 6 samples and traces only were found in 5 (table 1). The maximum level of sulphite found was 8 ppm.

Table 1 - Results of analysis of sulphites in beer in the 21<sup>st</sup> Australian Total Diet Study

Food	No. of analyses	No. of nd samples	trace samples	Mean (Trace=0)	Mean (Trace=LOR)	Minimum	Maximum
				mg/kg	mg/kg	mg/kg	mg/kg
Beer, regular alcohol	15	6	5	2	3	nd	8

The results of the ATDS indicate that:

- Overall the mean dietary exposure to sulphites for all consumers (2 years and above) was below the Acceptable Daily Intake (ADI).
- The 95<sup>th</sup> percentile estimated dietary exposure for total sulphites exceeded the ADI for 19+ males and females 19+ years by 30%.
- the major contributors to sulphite exposure for adults (19 years and over) were white wine, sausages and dried apricots.
- sulphites in beer did not contribute significantly to total dietary sulphates for 19+ males (4%) or females (<1%).
- It is further noted in the report that the dietary modelling used in this survey is conservative and is likely to lead to an overestimate of actual dietary exposure. In addition the ADI for sulphites is also very conservative and contains a significant margin of safety.

### Conclusions

While the AAB supports the broad objective of this proposal, it is concerned that the review does take a balanced and scientifically sound approach to any changes which might be considered.

Such considerations in the case of beer include:

- Sulphur dioxide is a natural component of fermented beverages, including beer. The current permission for beer to contain up to 25mg/L reflects a practical approach as fermentation /yeast variations can occasionally lead to a higher level than those found in the survey. To have a lower permitted level would not only require additional monitoring but also result in increased processing costs.  
Control of sulphur dioxide formation is not fully understood and depends on yeast strain, yeast health and fermentation conditions among other factors. Changing such parameters to meet a lower permitted sulphur dioxide level would inevitably impact on the flavour of current products, as well as operating efficiencies.
- There is no effective alternative to sulphur dioxide in terms of maintaining the fresh

flavour of beer. While sulphur dioxide may be added to some beers to maintain freshness, the quantities added are small and always below 10 mg/L.

- The 21<sup>st</sup> Australian Total Diet Study demonstrates that beer does not contribute significantly to the intake of sulphites by adults (males 19+, 4%, and males 25+ = 3% of intake respectively).
- Imported beers may also be affected by any change to the permissions.

The AAB therefore requests that the status quo with respect to the permission for beer to be maintained.

Yours Faithfully

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Chair AAB Technical Committee