



Memorandum

REF 3

ate • Nov. 21, 1983

From Food Additive Chemistry Evaluation Branch, HFF-458

Subject GRASP 3G0287 - Gum arabic. Beatrice Foods Co. (through Burditt & Calkins).

To GRAS Review Branch, HFF-335
Attn: L. Mansor

The petitioners request amendment of the current GRAS affirmation regulation of Gum arabic to permit use of the ingredient in alcoholic beverages at levels of 12-20%. In the current regulation, 184.1330, use of Gum arabic in alcoholic beverages is limited to not more than 1% by the "all other food categories" listing.

The firm met with Bureau representatives before submitting this petition (7-8-83). In preparation for that meeting DCH reviewed current information on Gum arabic. DCH and other technical reviewers observed that there were no substantial scientific questions if the increase in Gum arabic intake were small.

The petitioner has submitted no new information on Gum arabic chemistry or toxicology. Information is provided on the petitioner's estimate of Gum arabic intake resulting from use in cream-type alcoholic beverages based on per capita on US consumption of alcoholic beverages (Exhibit 5).

The petitioner's estimate of Gum arabic intake from the proposed use is between 0.40 and 0.66 grams/person/day (gpd) based on the total number of cases of cordials/liqueurs and prepared cocktails sold in the USA, the drinking age population of the USA and the use level range of 12-20%. DCH examined other sources of food intake data to verify the petitioner's estimate. There is information from the 1977 Survey of Industry by the National Academy of Sciences, where food intake for the categories cocktails (24D) and cordials/liqueurs (24J) are reported. These data are from a frequency-of-use survey by Market Research Corp. of America (MRCA) in 1972. From previous experience DCH knows that MRCA data underestimate alcoholic beverage intake when compared to commodity consumption data. DCH went through the exercise of comparing MRCA-based food intake for cordials/liqueurs with commodity consumption reported in Exhibit 5 of the petition. We confirmed that our usual source of food intake data, i.e. the MRCA surveys, do not present a representative intake of alcoholic beverages. Therefore, DCH accepts the petitioner's estimates.

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The cumulative intake of Gum arabic from existing uses is about 2.5 gpd according to SCOGS report number 1, expressed as the average possible daily intake. This intake value comes from a survey of food industry users of Gum arabic in 1972. DCH has no data on Gum arabic use that is more recent than the 1972 survey. Using the SCOGS estimate, Gum arabic intake from the proposed use is approximately a 20% increase in intake over the existing exposure, $0.5 \text{ gpd} / 2.5 \text{ gpd} \times 100\%$.

Conclusions

DCH has no further questions on the chemistry of the proposed use of Gum arabic in cream-type alcoholic beverages.

The increase in Gum arabic intake for the typical adult consumer if this proposed use is approved is about 20%. Existing Gum arabic intake, estimated for uses reported in the 1972 survey of the food industry, is about 2.5 gpd. Estimated Gum arabic intake from the proposed use is 0.5 gpd.


John Modderman, Ph.D.

HFF-400; 450; 159
HFF-458 RF/Modderman
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