Food and Drink Federation

Making a real difference

Supplementary letter from the Food and Drink Federation

Antony Willott
Clerk to the Science and Technology Sub-Committee I
House of Lords
London SW1A 0PW

1 July 2009

Dear Antony,

Thank you for your letter of 1 June addressed to Dr. Mike Knowles, with whom I have discussed and agreed this response, which is sent on his behalf.

To clarify Mike's statement to the Committee about the use of titanium dioxide (E171) in food, I can confirm that it is an authorised food colour permitted for use in all foods, except unprocessed foodstuffs and those foods in which the use of colours is specifically restricted, according to Directive 94/36/EC[1], implemented in the UK by the Colours in Food Regulations 1995 (as amended).

Titanium dioxide is extracted from natural ores and milled to the desired particle size relative to its intended use, which is traditionally, as is the case in food, to provide optimum opacity and whiteness. As with any milled product, particle sizes will vary, and some preparations may include some particles in the nanoscale range, by which we mean below 100nm. We understand that the MRC are referring to materials of about 200nm as the average particle size, and with no novel nanoscale properties. The nano-engineered titanium dioxide used in sunscreens is, as we understand it, deliberately engineered at the low nanoscale, i.e. below 100nm, to be transparent. As titanium dioxide no longer imparts opacity and whiteness at the nanoscale, it self-evidently has no application in food as a white colour.

The recently adopted European Regulation on food additives[2], which will eventually supersede Directive 94/36/EC, includes a clause requiring that any food additive already approved which is prepared by production methods or using starting materials significantly

[1] European Parliament and Council directive 94/36/EC of 30 June 1994 on colours for use in foodstuffs, *Official Journal* L 237/13, 10.9.94, 13-29
[2] Regulation (EC) No 1333/2008 of the European Parliament and of the Council of 16 December 2008 on food additives, *Official Journal* L 354, 31.12.2008, 16-33

different from those covered by the existing specifications, laid down for all approved additives, should be submitted for evaluation by the European Food Safety Authority (EFSA). The Regulation specifies that: "'Significantly different' could mean, *inter alia,* a change of the production method from extraction from a plant to production by fermentation using a micro-organism or a genetic modification of the original micro-organism, a change in starting materials, or a change in particle size, including the use of nanotechnology." (Recital 14.) These provisions can be seen as clarifying the meaning, as far as nanotechnology is concerned, of the current provision in the EC legislation on additives that requires prior evaluation by EFSA before application of a new production method of food additives.

We are in regular discussion with the associations that are broadly representative of suppliers of food additives, both in the UK and at EU level. They assure us that their membership is very well aware of the ongoing debate on nanotechnology, and fully cognisant of their legal obligations, as described above, and committed to abide by them.

I hope this clarifies the position, but should you have any further questions, please do not hesitate to contact me.

Kind regards,

Yours sincerely,

[By e-mail]

Lynn Insall
Food Safety and Science Division